Privacy and Security in Online Social Networks
Department of Computer Science and Engineering
Indian Institute of Technology, Madras

Lecture – 07
Tutorial 2 Part 1 Facebook API

Hi everyone, welcome to the second tutorial for the PSOSM course.

(Refer Slide Time: 00:12)

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Privacy and Security in Online Social Media

Course on NPTEL
Tutorial 2: Facebook Graph API

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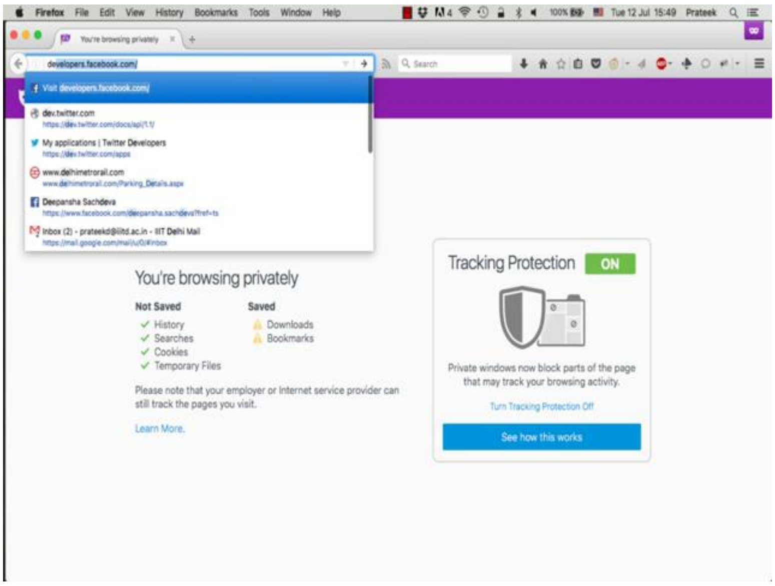
Associate Professor
ACM Distinguished Speaker
fb/ponnurangam.kumaraguru, @ponguru

In the previous tutorial, we learnt how to install ubuntu and got started with python. We also saw some basics about package management in ubuntu and python. Now in this tutorial, we will learn how to collect data from Facebook using the graph API. You must have browsed Facebook as one of the millions of common Facebook users hundreds of times, but now we will introduce Facebook to you from a developer's perspective which is entirely different from what you must have seen until now.

(Refer Slide Time: 00:45)

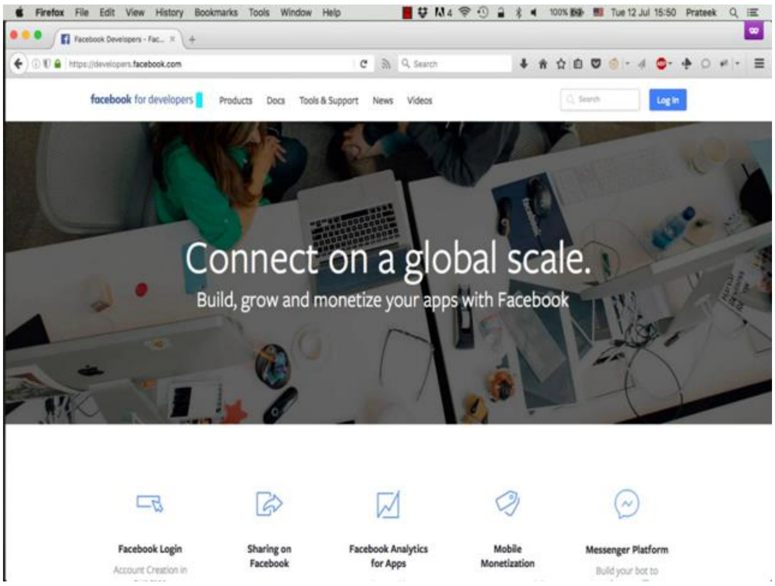

Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:49 Prateek
You're browsing privately
developers.facebook.com/
Search
Visit developers.facebook.com/
dev.twitter.com
https://dev.twitter.com/docs/api/1.1/
My applications | Twitter Developers
https://dev.twitter.com/apps
www.delhimetrorail.com
www.delhimetrorail.com/Parking_Details.aspx
Deepansha Sachdeva
https://www.facebook.com/deepansha.sachdeva?fref=ts
Inbox (2) - prateekd@iiitd.ac.in - IIIT Delhi Mail
https://mail.google.com/mail/u/0/#inbox
You're browsing privately
Not Saved
History
Searches
Cookies
Temporary Files
Saved
Downloads
Bookmarks
Learn More.
Tracking Protection
ON
Turn Tracking Protection Off
See how this works

Please note that your employer or Internet service provider can still track the pages you visit.

Private windows now block parts of the page that may track your browsing activity.

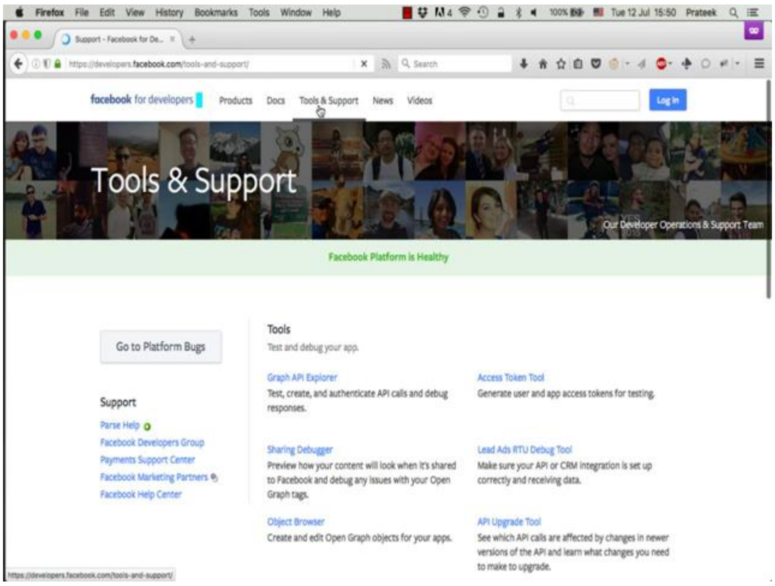
To start open your browser and open developers dot facebook dot com. We will see a glimpse of what Facebook has in store for the developer's side of you.

(Refer Slide Time: 00:55)


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:50 Prateek
Facebook Developers - Fac...
https://developers.facebook.com
facebook for developers
Products
Docs
Tools & Support
News
Videos
Search
Log In
Connect on a global scale.
Build, grow and monetize your apps with Facebook
Facebook Login
Account Creation in
Sharing on Facebook
Facebook Analytics for Apps
Mobile Monetization
Messenger Platform
Build your bot to

Now, click on tools and support and go the graph API explorer.

(Refer Slide Time: 01:06)


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:50 Prateek
Support - Facebook for De...
https://developers.facebook.com/tools-and-support/
facebook for developers
Products
Docs
Tools & Support
News
Videos
Log In
Our Developer Operations & Support Team

Tools & Support

Facebook Platform is Healthy

Go to Platform Bugs

Support

- Parse Help
- Facebook Developers Group
- Payments Support Center
- Facebook Marketing Partners
- Facebook Help Center

Tools

Test and debug your app.

Graph API Explorer
Test, create, and authenticate API calls and debug responses.

Access Token Tool
Generate user and app access tokens for testing.

Sharing Debugger
Preview how your content will look when it's shared to Facebook and debug any issues with your Open Graph tags.

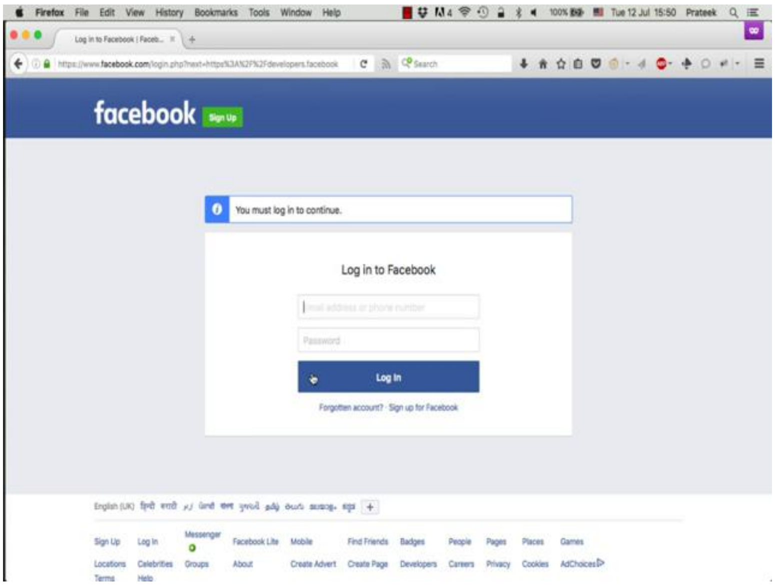
Lead Ads RTU Debug Tool
Make sure your API or CRM integration is set up correctly and receiving data.

Object Browser
Create and edit Open Graph objects for your apps.

API Upgrade Tool
See which API calls are affected by changes in newer versions of the API and learn what changes you need to make to upgrade.

https://developers.facebook.com/tools-and-support/

(Refer Slide Time: 01:12)



You must log in to continue.

Log in to Facebook

Email address or phone number

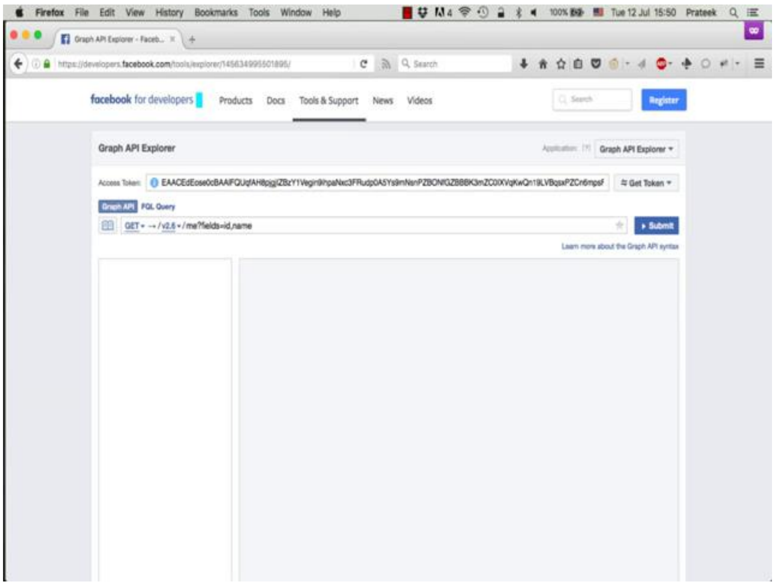
Password

Log In

Forgotten account? · Sign up for Facebook

Of course, you need to login first. We assume all of you have an account on Facebook, if you do not please pause this tutorial here, create an account and then continue.

(Refer Slide Time: 00:12)

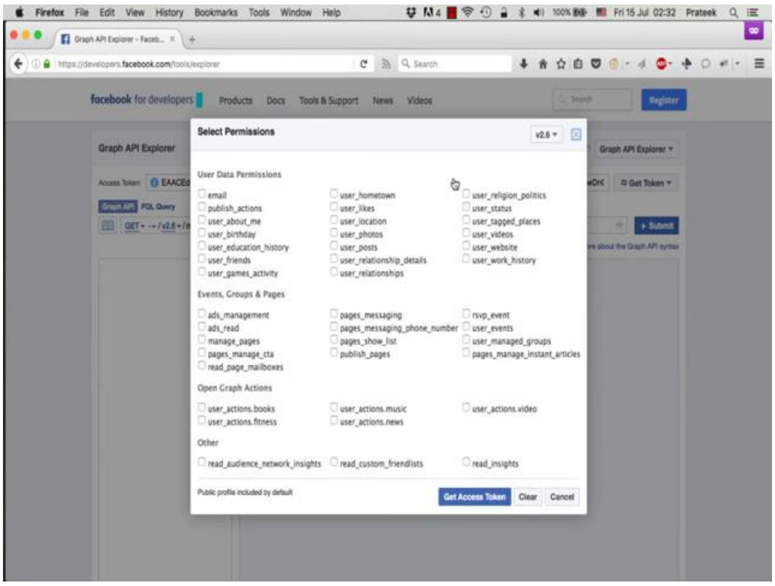


Access Token: EAACEdEose0cBAAIFQUqfAH8pjgjZBzY1Vegin9hpaNxc3FRudp0A5Ys9mNsnPZBONfGZBBBK3mZC0lXVqKwQn19LVBqsxPZCn6mpsF

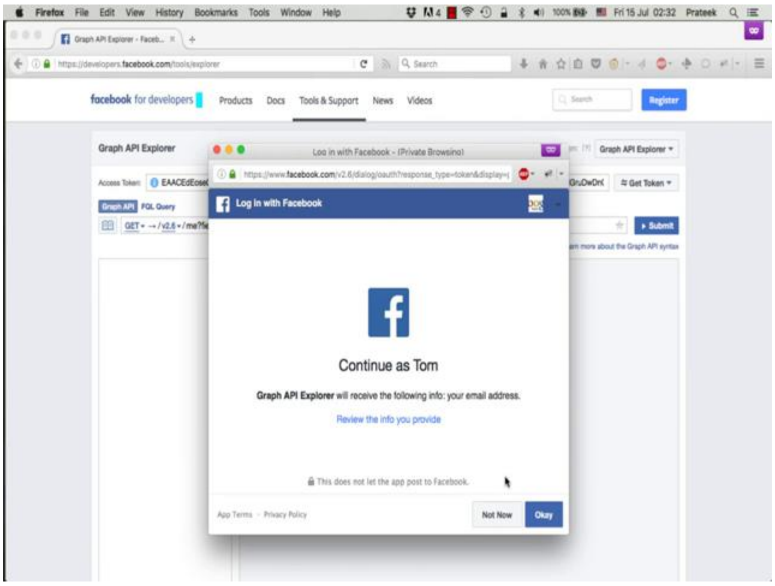
GET ▾ → /v2.6 ▾ /me?fields=id,name

So, this is how the Facebook graph API explorer looks like. If you notice this bar here, you will see a long random looking string of letters and numbers; this is called the access token. Now an access token is like a key which opens the door of the Facebook API for you. In more technical terms, the access token is an authentication string generated using the open authentication or OAuth protocol which Facebook uses to verify the authenticity of the user and determine the user's identity. If you do not see an access token in this space click on the get access token button on the right and click on the get user access token option.

(Refer Slide Time: 02:05)



And you will see a big list of check boxes. Now each of these check boxes corresponds to a permission that you may choose to grant to Facebook. So, for now just click on any one of them say email and click on the get access token button. Do not worry about these permissions etcetera for now; we will get back to the details regarding all these permissions later in the tutorial.

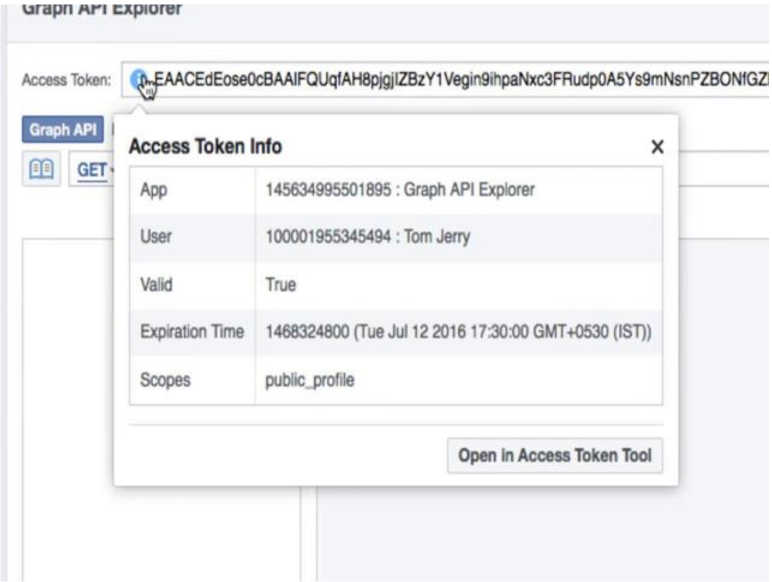

Log in with Facebook
Continue as Tom

Graph API Explorer will receive the following info: your email address.

Review the info you provide
This does not let the app post to Facebook.
App Terms · Privacy Policy
Not Now
Okay

A dialogue box will appear informing you that this action will allow Facebook to get to know your email address. Click on ok and you will have the access token appear in the access token bar.

(Refer Slide Time: 02:48)



Access Token: EAACEdEose0cBAAIFQUqfAH8pjgjIZBzY1Vegin9ihpaNxc3FRudp0A5Ys9mNsnPZBONfGZ

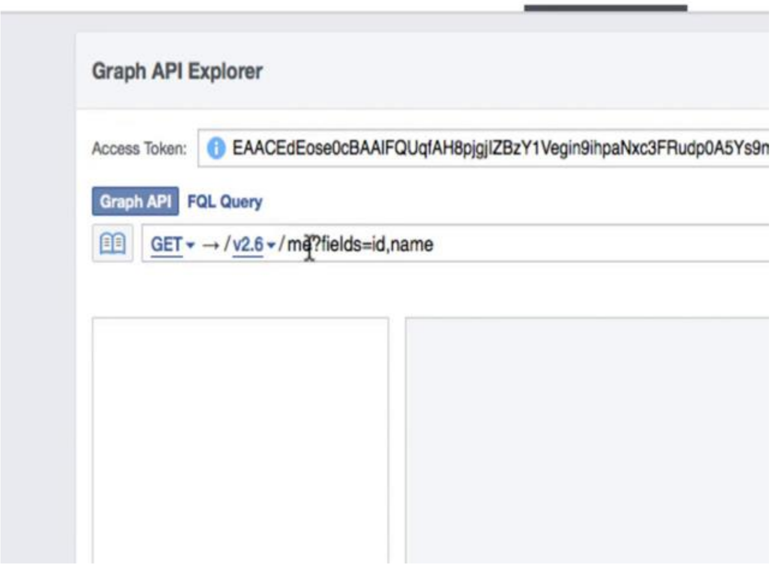
Access Token Info

App	145634995501895 : Graph API Explorer
User	100001955345494 : Tom Jerry
Valid	True
Expiration Time	1468324800 (Tue Jul 12 2016 17:30:00 GMT+0530 (IST))
Scopes	public_profile

Now if you click on this little blue circle here, you can see more information about this access token. You can see the app that was used to generate this token it says the graph API explorer app here. Now this is the default app that is there when you first get into Facebook as a developer. Now this concept of apps is crucial from the developers' perspective. You can think of an app as a door that you need in order to enter the graph API. Now the key to this door is the access token like we just said before. So, essentially any access token or key corresponds to an app or a door which leads into the graph API. You cannot enter the graph API without a key that is the access token. And you cannot generate a key or an access token without a door that is the app. We will see how to create our own apps later in this tutorial.

Now, getting back to the token, we can also see the name of the user who generated this token, which is Tom in this case. You see that the token is valid right now and the expiration time is about 17:30 hours which is less than 2 hours from now. So, after 2 hours, this access token becomes totally useless. Now all of this information is somehow embedded in this long random looking string. Now let us put this access token to use and extract some data from the API.

(Refer Slide Time: 04:04)



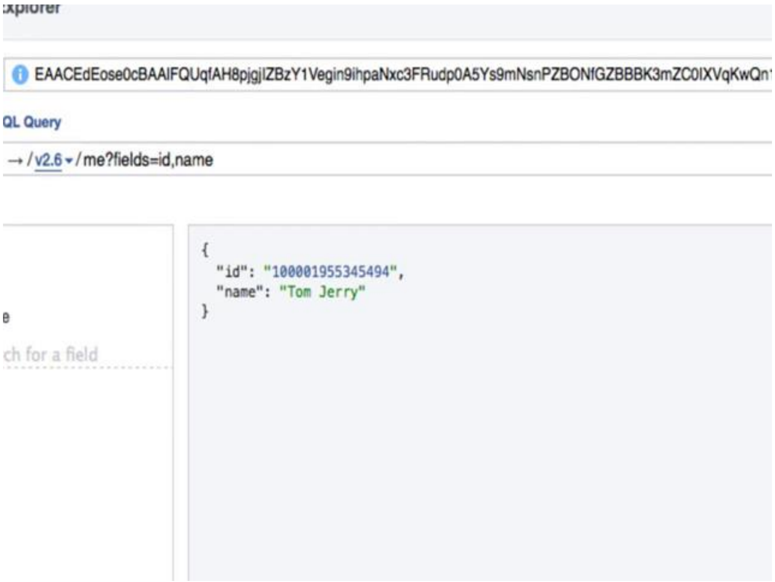
Graph API Explorer

Access Token: EAACEdEose0cBAAIFQUqfAH8pjgjIZBzY1Vegin9ihpaNxc3FRudp0A5Ys9n

GET → /v2.6 /me?fields=id,name

We see here that the query field has this me question mark fields is equal to id comma name here. So, just press, submit.

(Refer Slide Time: 04:12)

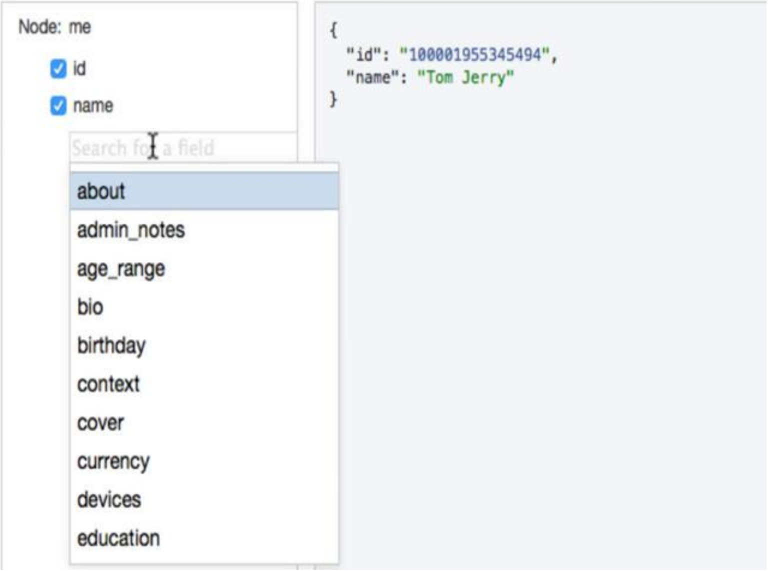


xplorer
EAACEdEose0cBAAIFQUqfAH8pjgjIZBzY1Vegin9ihpaNxc3FRudp0A5Ys9mNsnPZBONfGZBBBK3mZC0IXVqKwQn
QL Query
→ / v2.6 ▾ / me?fields=id,name
e
ch for a field

```
{
  "id": "100001955345494",
  "name": "Tom Jerry"
}
```

And you see that the API responds with the two fields that you asked for. The me part that we had in the query tells the API that it needs to return the id and name fields for me which is the current authenticating user. Now there are loads of other things that you can extract from the API.

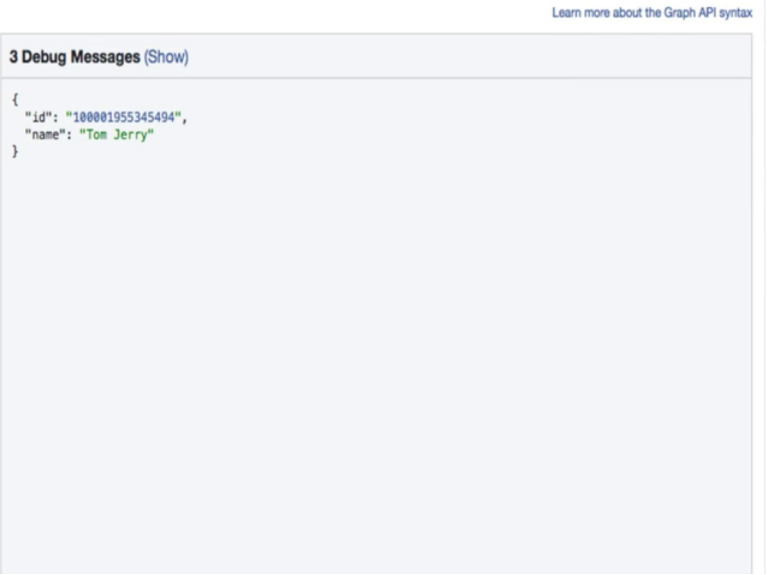
(Refer Slide Time: 04:29)



```
{
  "id": "100001955345494",
  "name": "Tom Jerry"
}
```

Just click on this search area and you will see a list to start with. So, let us select education, birthday, and say email and click submit again.

(Refer Slide Time: 04:39)

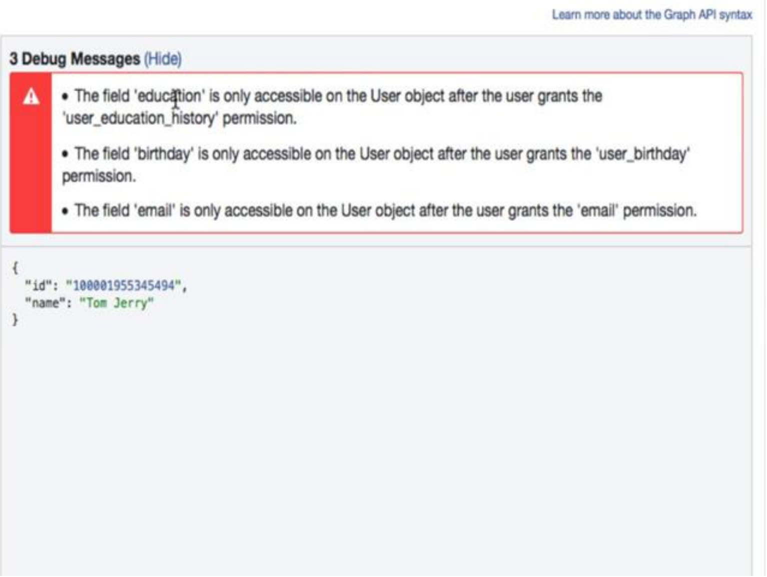


3 Debug Messages (Show)

```
{
  "id": "100001955345494",
  "name": "Tom Jerry"
}
```

So, it throws a bunch of debug errors.

(Refer Slide Time: 04:44)



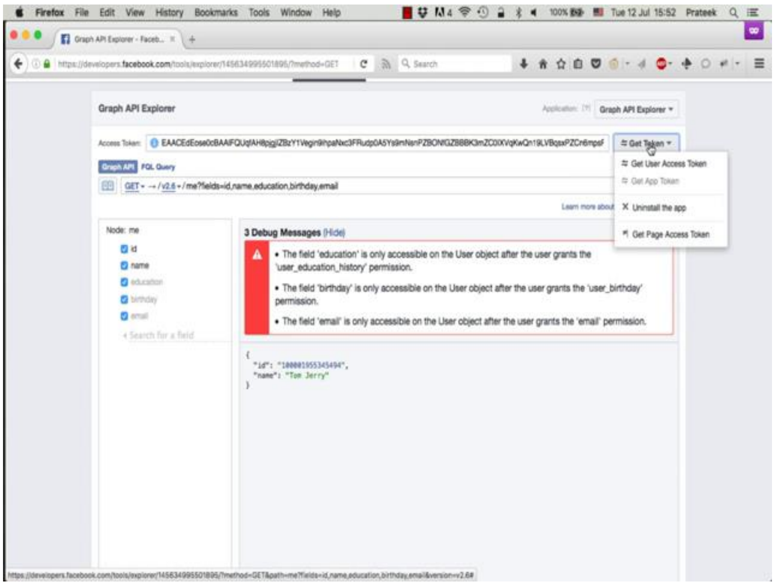
3 Debug Messages (Hide)

- The field 'education' is only accessible on the User object after the user grants the 'user_education_history' permission.
- The field 'birthday' is only accessible on the User object after the user grants the 'user_birthday' permission.
- The field 'email' is only accessible on the User object after the user grants the 'email' permission.

```
{
  "id": "100001955345494",
  "name": "Tom Jerry"
}
```

So, if you remember the permissions a while ago, we did not give permission to this app for getting access to birthday and its education fields.

(Refer Slide Time: 04:52)


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:52 Prateek
Graph API Explorer - Faceb...
https://developers.facebook.com/tools/explorer/145634995501895/?method=GET
Search
Graph API Explorer
Application: [?] Graph API Explorer
Get Token
Get User Access Token
Get App Token
Uninstall the app
Get Page Access Token
Graph API
FQL Query
Learn more about

Access Token: EAACEdEose0cBAAFQUqfAH8pjgjZBzY1Vegin9ihpaNxc3FRudp0A5Ys9mNsnPZBONGZBBBK3mZC0XVqKwQn19LVBqsxPZCr6mpsF

GET → /v2.6 /me?fields=id,name,education,birthday,email

Node: me

☑ id
☑ name
☑ education
☑ birthday
☑ email

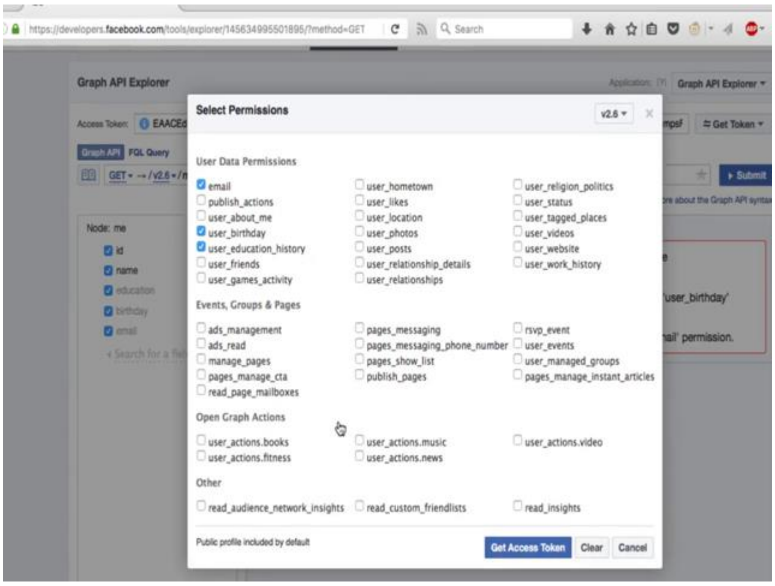
3 Debug Messages (Hide)

- The field 'education' is only accessible on the User object after the user grants the 'user_education_history' permission.
- The field 'birthday' is only accessible on the User object after the user grants the 'user_birthday' permission.
- The field 'email' is only accessible on the User object after the user grants the 'email' permission.

```
{
  "id": "100001955345494",
  "name": "Tom Jerry"
}
```

So, to get these fields from the API, go back to the get access token, click on the get user access token button again.

(Refer Slide Time: 04:55)


https://developers.facebook.com/tools/explorer/145634995501895/?method=GET
Search
Graph API Explorer
Application: [?] Graph API Explorer
Get Token
Submit
Select Permissions
v2.6
Get Access Token
Clear
Cancel

User Data Permissions

☑ email
□ publish_actions
□ user_about_me
☑ user_birthday
☑ user_education_history
□ user_friends
□ user_games_activity
□ user_hometown
□ user_likes
□ user_location
□ user_photos
□ user_posts
□ user_relationship_details
□ user_relationships
□ user_religion_politics
□ user_status
□ user_tagged_places
□ user_videos
□ user_website
□ user_work_history

Events, Groups & Pages

□ ads_management
□ ads_read
□ manage_pages
□ pages_manage_cta
□ read_page_mailboxes
□ pages_messaging
□ pages_messaging_phone_number
□ pages_show_list
□ publish_pages
□ rsvp_event
□ user_events
□ user_managed_groups
□ pages_manage_instant_articles

Open Graph Actions

□ user_actions.books
□ user_actions.fitness
□ user_actions.music
□ user_actions.news
□ user_actions.video

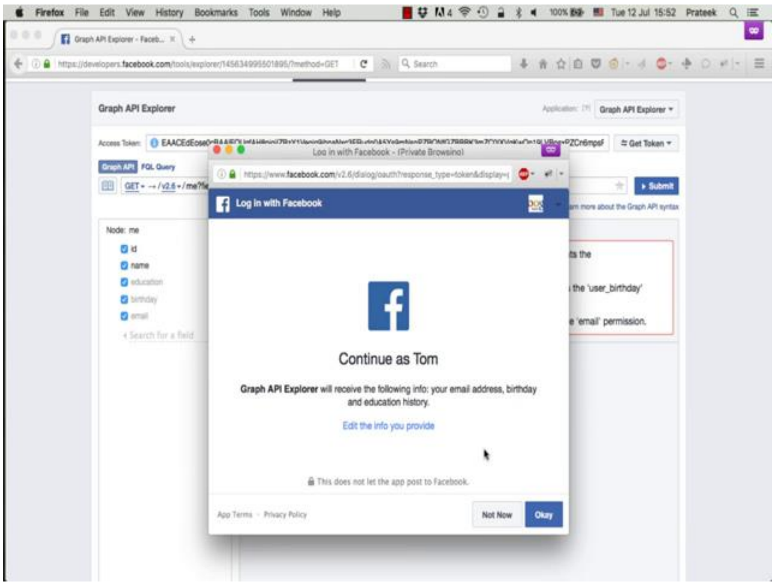
Other

□ read_audience_network_insights
□ read_custom_friendlists
□ read_insights

Public profile included by default

And this time check the 3 fields that you requested for, email, user education history and user birthday and click get access token.

(Refer Slide Time: 05:14)


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:52 Prateek
Graph API Explorer - Faceb...
https://developers.facebook.com/tools/explorer/145634995501895/?method=GET
Search
Graph API Explorer
Application: Graph API Explorer
Access Token:
Get Token
Graph API
FQL Query
GET → /v2.6 /me?fie
Submit
Learn more about the Graph API syntax
Node: me
☑ id
☑ name
☑ education
☑ birthday
☑ email
Search for a field
Log in with Facebook - (Private Browsing)
https://www.facebook.com/v2.6/dialog/oauth?response_type=token&display=
Log in with Facebook
App Terms · Privacy Policy
Not Now
Okay

Continue as Tom

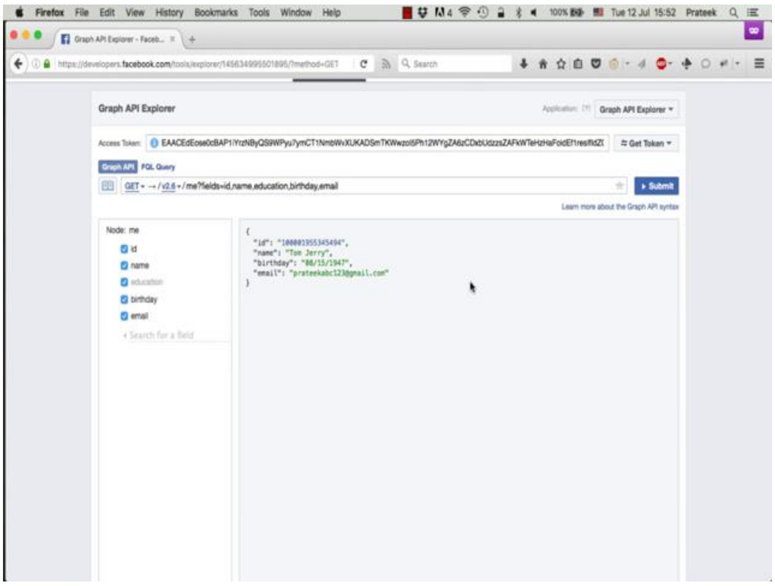
Graph API Explorer will receive the following info: your email address, birthday and education history.

Edit the info you provide

This does not let the app post to Facebook.

Now, you see this dialogue box asking if you want this app to have access to all these fields that you just checked. If you have ever used any app on Facebook before FarmVille or candy crush or any other app, you would remember seeing this exact dialogue box appear with probably a different set of permissions. This is the standard way all Facebook apps request permissions from a user. So, click OK.

(Refer Slide Time: 05:42)

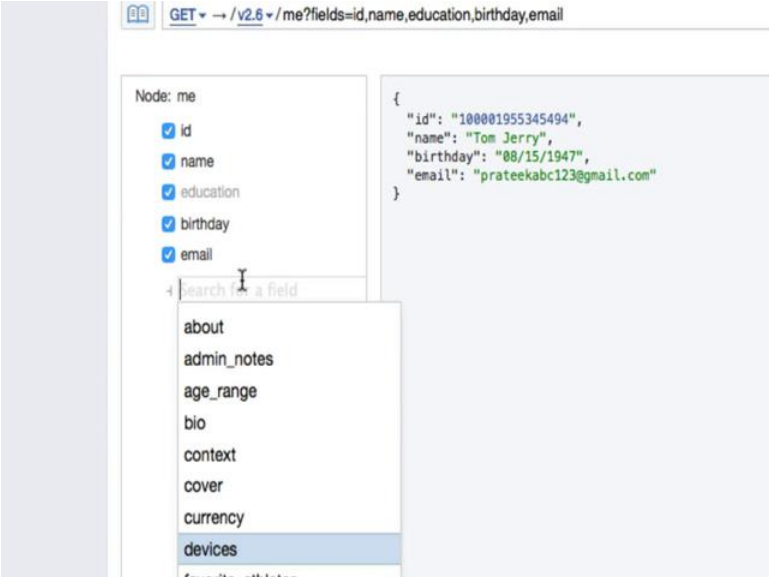

Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:52 Prateek
Graph API Explorer - Faceb...
https://developers.facebook.com/tools/explorer/145634995501895/?method=GET
Search
Graph API Explorer
Application: Graph API Explorer
Access Token:
Get Token
Graph API
FQL Query
Submit
Learn more about the Graph API syntax
Node: me
☑ id
☑ name
☑ education
☑ birthday
☑ email
Search for a field

GET → /v2.6 /me?fields=id,name,education,birthday,email

```
{
  "id": "100001955345494",
  "name": "Tom Jerry",
  "birthday": "08/15/1947",
  "email": "prateekabc123@gmail.com"
}
```

Click submit again and you will see that those debug messages are gone and you have the information you asked for. There is no education here because this user does not have any education history available in the profile.

(Refer Slide Time: 04:55)



GET → /v2.6 / me?fields=id,name,education,birthday,email

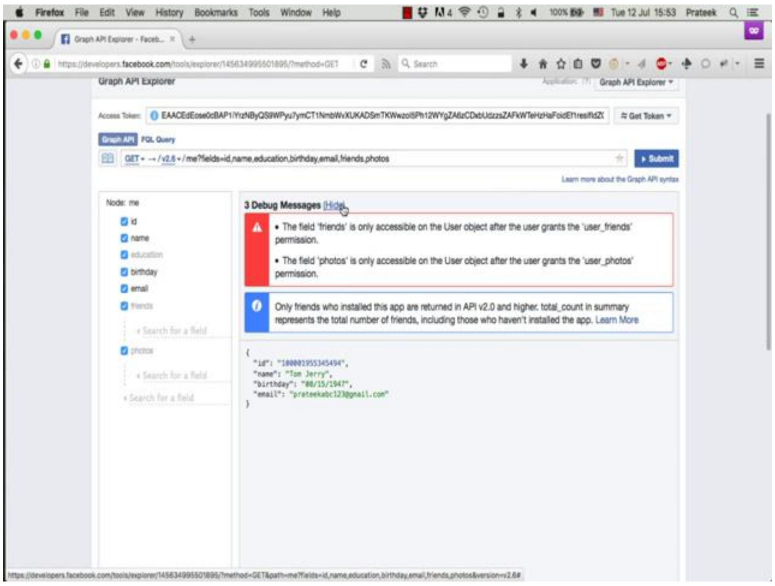
Node: me

☑ id
☑ name
☑ education
☑ birthday
☑ email

```
{
  "id": "100001955345494",
  "name": "Tom Jerry",
  "birthday": "08/15/1947",
  "email": "prateekabc123@gmail.com"
}
```

So, let us look for some more details about this user say friends, photos and click submit.

(Refer Slide Time: 06:05)



Graph API Explorer

Access Token: EAACEdEose0cBAP1/YrzNByQS9WPyu7ymCT1NmbWvXUKADSmTKWwzoI5Ph12WYgZA6zCDxbUdzzsZAFkWTeHzHaFoidEf1resfIdZ(

GET → /v2.6 / me?fields=id,name,education,birthday,email,friends,photos

Node: me

☑ id
☑ name
☑ education
☑ birthday
☑ email
☑ friends
☑ photos

3 Debug Messages (Hide)

- The field 'friends' is only accessible on the User object after the user grants the 'user_friends' permission.
- The field 'photos' is only accessible on the User object after the user grants the 'user_photos' permission.

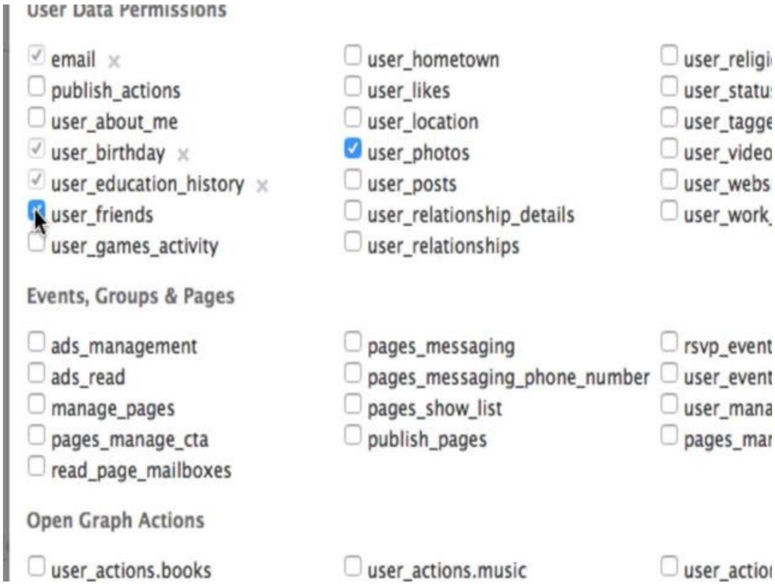
Only friends who installed this app are returned in API v2.0 and higher. total_count in summary represents the total number of friends, including those who haven't installed the app. Learn More

```
{
  "id": "100001955345494",
  "name": "Tom Jerry",
  "birthday": "08/15/1947",
  "email": "prateekabc123@gmail.com"
}
```

Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:53 Prateek
Graph API Explorer - Faceb...
https://developers.facebook.com/tools/explorer/145634995501896/?method=GET
Search
Graph API Explorer
Get Token
Graph API
FQL Query
Submit
Learn more about the Graph API syntax
Search for a field
Search for a field
Search for a field
https://developers.facebook.com/tools/explorer/145634995501896/?method=GET&path=me?fields=id,name,education,birthday,email,friends,photos&version=v2.6#

Again, the same debug messages for the permissions.

(Refer Slide Time: 06:13)



User Data Permissions

☑ email ×
□ publish_actions
□ user_about_me
☑ user_birthday ×
☑ user_education_history ×
☑ user_friends
□ user_games_activity
□ user_hometown
□ user_likes
□ user_location
☑ user_photos
□ user_posts
□ user_relationship_details
□ user_relationships
□ user_religi
□ user_statu
□ user_tagge
□ user_video
□ user_webs
□ user_work

Events, Groups & Pages

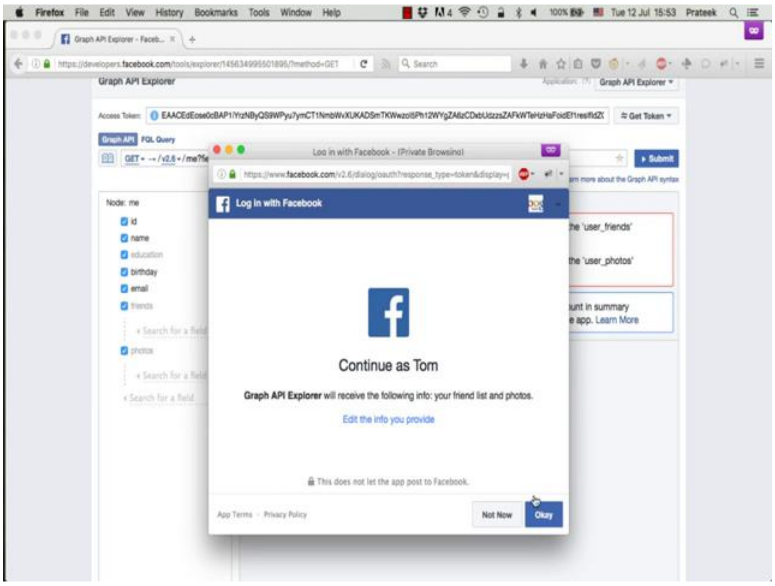
□ ads_management
□ ads_read
□ manage_pages
□ pages_manage_cta
□ read_page_mailboxes
□ pages_messaging
□ pages_messaging_phone_number
□ pages_show_list
□ publish_pages
□ rsvp_event
□ user_event
□ user_mana
□ pages_mar

Open Graph Actions

□ user_actions.books
□ user_actions.music
□ user_actio

Go back to the get access token button select user photos and user friends, get access token, ok.

(Refer Slide Time: 06:24)



Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:53 Prateek
Graph API Explorer - Faceb...
https://developers.facebook.com/tools/explorer/145634995501895/?method=GET
Graph API Explorer
Access Token:
EAACEdEose0cBAP1iYrzNByQS9WPyu7ymCT1NmbWvXUKADSmTKWwzoI5Ph12WYgZA6zCDxbUdzzsZAFkWTeHzHaFoidEf1resfIdZ(
Get Token
Graph API FQL Query
GET → /v2.6 / me?fie
Submit
Node: me
☑ id
☑ name
☑ education
☑ birthday
☑ email
☑ friends
☑ photos
Search for a field
Log in with Facebook - (Private Browsing)
https://www.facebook.com/v2.6/dialog/oauth?response_type=token&display=

Log in with Facebook

Continue as Tom

Graph API Explorer will receive the following info: your friend list and photos.

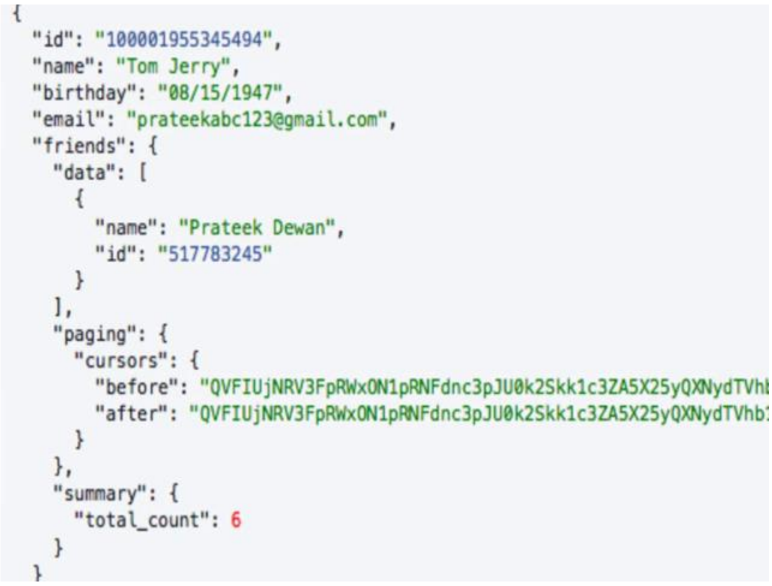
Edit the info you provide

This does not let the app post to Facebook.

App Terms · Privacy Policy
Not Now
Okay

Submit.

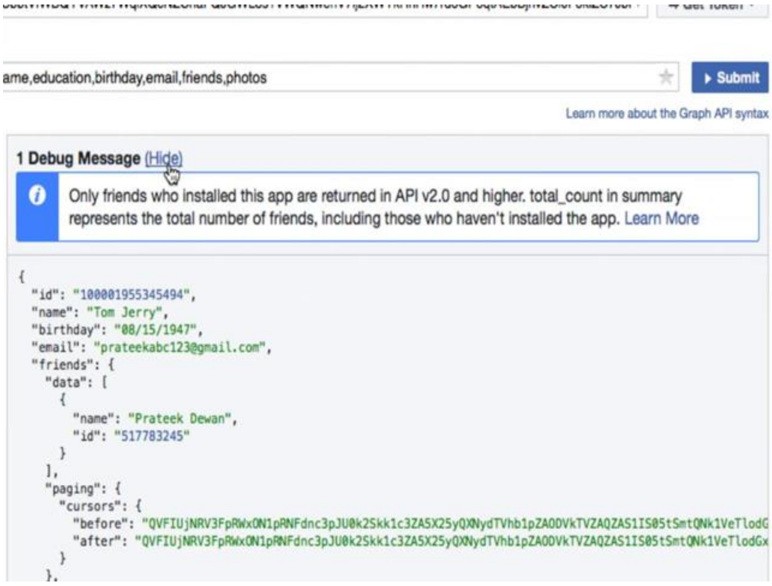
(Refer Slide Time: 06:32)



```
{
  "id": "100001955345494",
  "name": "Tom Jerry",
  "birthday": "08/15/1947",
  "email": "prateekabc123@gmail.com",
  "friends": {
    "data": [
      {
        "name": "Prateek Dewan",
        "id": "517783245"
      }
    ],
    "paging": {
      "cursors": {
        "before": "QVFIUjNRV3FpRWxON1pRNFdnc3pJU0k2Skk1c3ZA5X25yQXNydTVhb
        "after": "QVFIUjNRV3FpRWxON1pRNFdnc3pJU0k2Skk1c3ZA5X25yQXNydTVhb1
      }
    },
    "summary": {
      "total_count": 6
    }
  }
```

And there you go only one friend comes up, but notice that the total count says 6.

(Refer Slide Time: 06:39)



ame,education,birthday,email,friends,photos
Submit
Learn more about the Graph API syntax

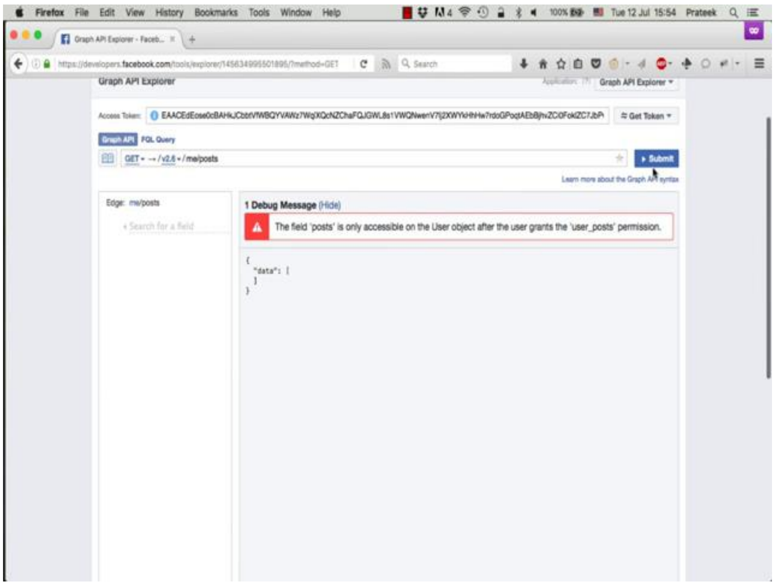
1 Debug Message (Hide)

Only friends who installed this app are returned in API v2.0 and higher. total_count in summary represents the total number of friends, including those who haven't installed the app. Learn More

```
{
  "id": "100001955345494",
  "name": "Tom Jerry",
  "birthday": "08/15/1947",
  "email": "prateekabc123@gmail.com",
  "friends": {
    "data": [
      {
        "name": "Prateek Dewan",
        "id": "517783245"
      }
    ],
    "paging": {
      "cursors": {
        "before": "QVFIUjNRV3FpRWxON1pRNFdnc3pJU0k2Skk1c3ZA5X25yQXNydTVhb1pZA0DVkTVZAQZAS1IS05tSmtQNk1VeTlodG
        "after": "QVFIUjNRV3FpRWxON1pRNFdnc3pJU0k2Skk1c3ZA5X25yQXNydTVhb1pZA0DVkTVZAQZAS1IS05tSmtQNk1VeTlodGx
      }
    },
```

This debug message here gives the explanation for this difference. So, it says that only those friends are returned by the API who have installed or used this graph API explorer app. So, which means that this one friend that showed up in the result has used a graph API explorer, but the other 5 have not. Facebook did return the details of all the friends up until last year, but due to multiple privacy issues raised by some users, they stopped doing it.

(Refer Slide Time: 07:11)



Access Token: EAACEdEose0cBAHkJCbbtVfWBQYVAWz7WqXQcNZChaFQJGWL8s1VWQNwenV7lj2XWYkHhHw7rdoGPoqtAEbBjhvZCi0FokIZC7JbPi

GET → /v2.6 → /me/posts

Edge: me/posts

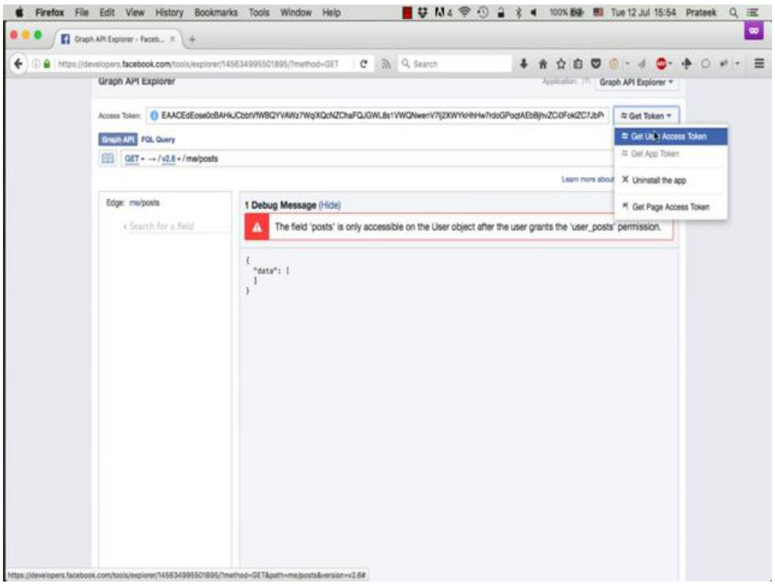
1 Debug Message (Hide)

The field 'posts' is only accessible on the User object after the user grants the 'user_posts' permission.

```
{
  "data": [
  ]
}
```

Anyway, so now, let us look at the posts that this user has done. Go to the query area remove the existing query and just type me slash posts and press enter. Again, the same rule.

(Refer Slide Time: 07:17)



Access Token: EAACEdEose0cBAHkJCbbtVfWBQYVAWz7WqXQcNZChaFQJGWL8s1VWQNwenV7lj2XWYkHhHw7rdoGPoqtAEbBjhvZCi0FokIZC7JbPi

GET → /v2.6 → /me/posts

Edge: me/posts

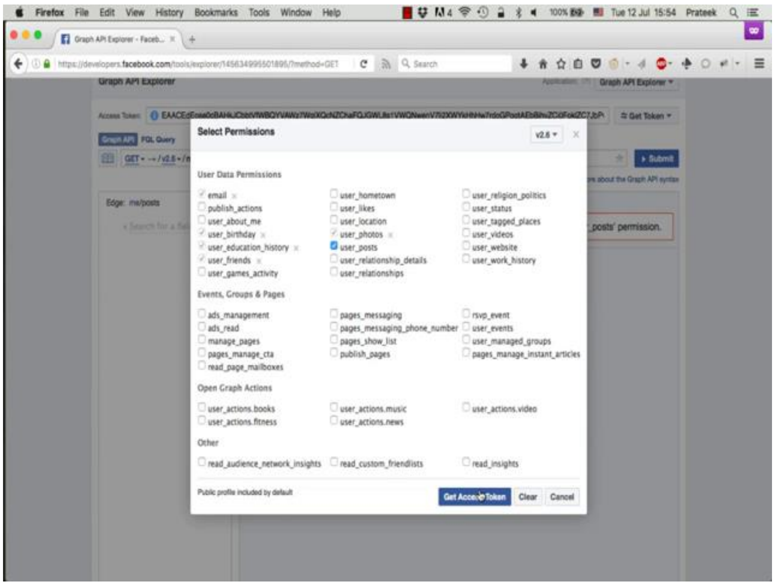
1 Debug Message (Hide)

The field 'posts' is only accessible on the User object after the user grants the 'user_posts' permission.

```
{
  "data": [
  ]
}
```

https://developers.facebook.com/tools/explorer/145634995501895/?method=GET&path=me/posts&version=v2.6#

(Refer Slide Time: 07:21)



Select Permissions

User Data Permissions

☑ email
□ publish_actions
□ user_about_me
☑ user_birthday
☑ user_education_history
☑ user_friends
□ user_games_activity
□ user_hometown
□ user_likes
□ user_location
☑ user_photos
☑ user_posts
□ user_relationship_details
□ user_relationships
□ user_religion_politics
□ user_status
□ user_tagged_places
□ user_videos
□ user_website
□ user_work_history

Events, Groups & Pages

□ ads_management
□ ads_read
□ manage_pages
□ pages_manage_cta
□ read_page_mailboxes
□ pages_messaging
□ pages_messaging_phone_number
□ pages_show_list
□ publish_pages
□ rsvp_event
□ user_events
□ user_managed_groups
□ pages_manage_instant_articles

Open Graph Actions

□ user_actions.books
□ user_actions.fitness
□ user_actions.music
□ user_actions.news
□ user_actions.video

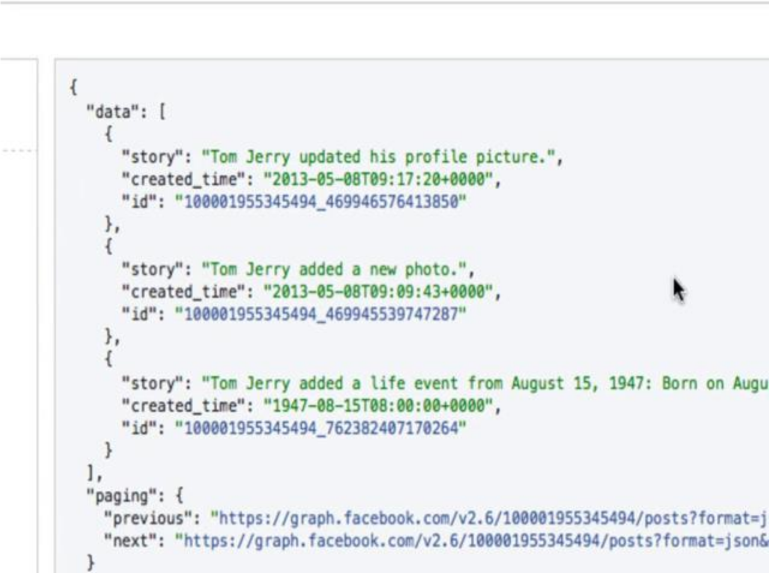
Other

□ read_audience_network_insights
□ read_custom_friendlists
□ read_insights

Public profile included by default

So, let us get the user underscore post permissions and there you go.

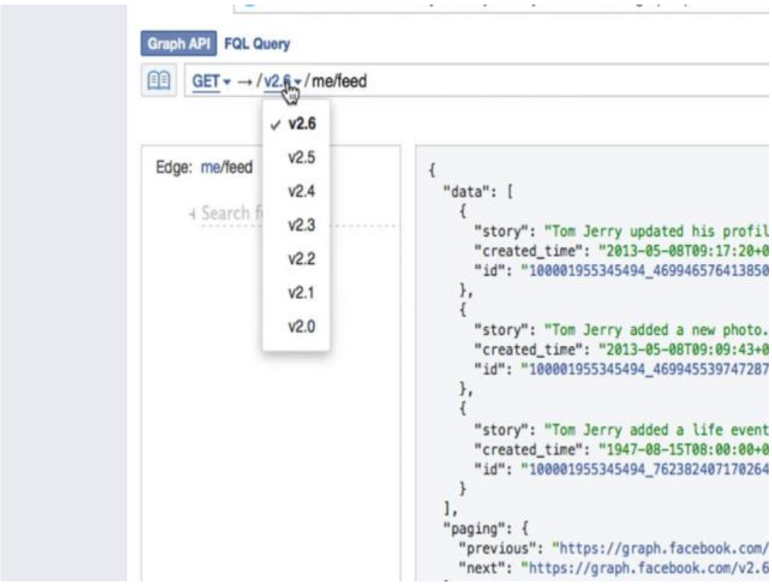
(Refer Slide Time: 07:30)



```
{
  "data": [
    {
      "story": "Tom Jerry updated his profile picture.",
      "created_time": "2013-05-08T09:17:20+0000",
      "id": "100001955345494_469946576413850"
    },
    {
      "story": "Tom Jerry added a new photo.",
      "created_time": "2013-05-08T09:09:43+0000",
      "id": "100001955345494_469945539747287"
    },
    {
      "story": "Tom Jerry added a life event from August 15, 1947: Born on Augu
      "created_time": "1947-08-15T08:00:00+0000",
      "id": "100001955345494_762382407170264"
    }
  ],
  "paging": {
    "previous": "https://graph.facebook.com/v2.6/100001955345494/posts?format=j
    "next": "https://graph.facebook.com/v2.6/100001955345494/posts?format=json&
  }
```

So, we see that the user updated his profile picture on May 8, 2013.

(Refer Slide Time: 07:36)



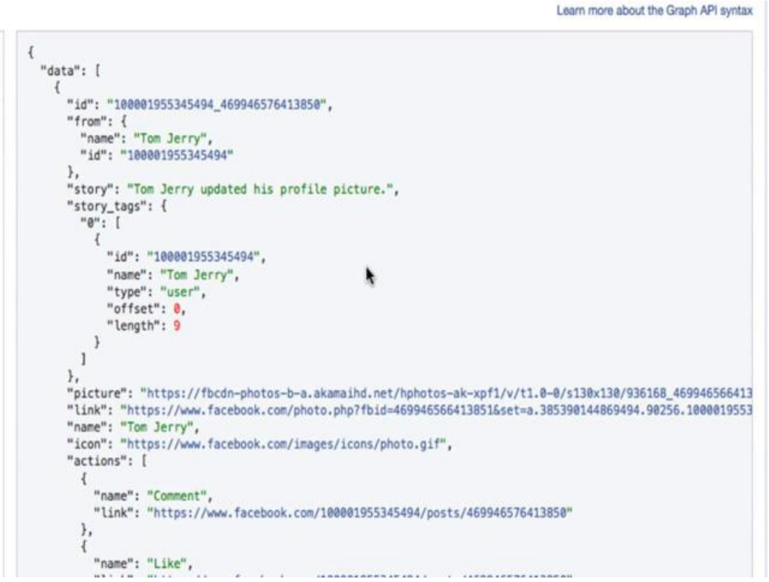
GET → /v2.6 /me/feed

Edge: me/feed

```
{
  "data": [
    {
      "story": "Tom Jerry updated his profil
      "created_time": "2013-05-08T09:17:20+0
      "id": "100001955345494_469946576413850
    },
    {
      "story": "Tom Jerry added a new photo.
      "created_time": "2013-05-08T09:09:43+0
      "id": "100001955345494_469945539747287
    },
    {
      "story": "Tom Jerry added a life event
      "created_time": "1947-08-15T08:00:00+0
      "id": "100001955345494_762382407170264
    }
  ],
  "paging": {
    "previous": "https://graph.facebook.com/
    "next": "https://graph.facebook.com/v2.6
```

Now if you notice here this part says v 2.6. This is the latest version 2.6 of the API that we are currently using. So, Facebook regularly pushes out newer versions of the graph API every few months and gets rids of the old ones over time. For now, these are the versions available. Now let us check out what is the difference between this current version 2.6 and the oldest available version, which is 2.0, right.

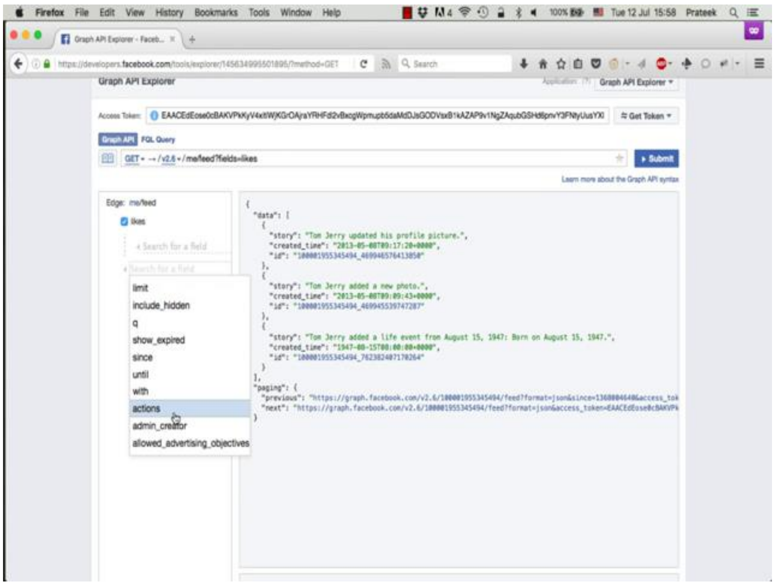
(Refer Slide Time: 08:05)



```
{
  "data": [
    {
      "id": "100001955345494_469946576413850",
      "from": {
        "name": "Tom Jerry",
        "id": "100001955345494"
      },
      "story": "Tom Jerry updated his profile picture.",
      "story_tags": {
        "0": [
          {
            "id": "100001955345494",
            "name": "Tom Jerry",
            "type": "user",
            "offset": 0,
            "length": 9
          }
        ]
      },
      "picture": "https://fbcdn-photos-b-a.akamaihd.net/hphotos-ak-xpf1/v/t1.0-0/s130x130/936168_469946566413
      "link": "https://www.facebook.com/photo.php?fbid=469946566413851&set=a.385390144869494.90256.1000019553
      "name": "Tom Jerry",
      "icon": "https://www.facebook.com/images/icons/photo.gif",
      "actions": [
        {
          "name": "Comment",
          "link": "https://www.facebook.com/100001955345494/posts/469946576413850"
        },
        {
          "name": "Like",
```

Now just select the 2.0 from the drop down and press submit. And you see that there is a whole lot of extra information that shows up. We are still looking at the posts, but now there is much more information about the post available. Like the link of the pictures the tags, the privacy settings for the post, the type of the post which is photo here, and multiple other things. It is the same level of details for all the posts. Now if you go back to the latest version 2.6, you notice that all these fields are still available, but you need to explicitly request for these fields they are not returned by the default request.

(Refer Slide Time: 08:39)



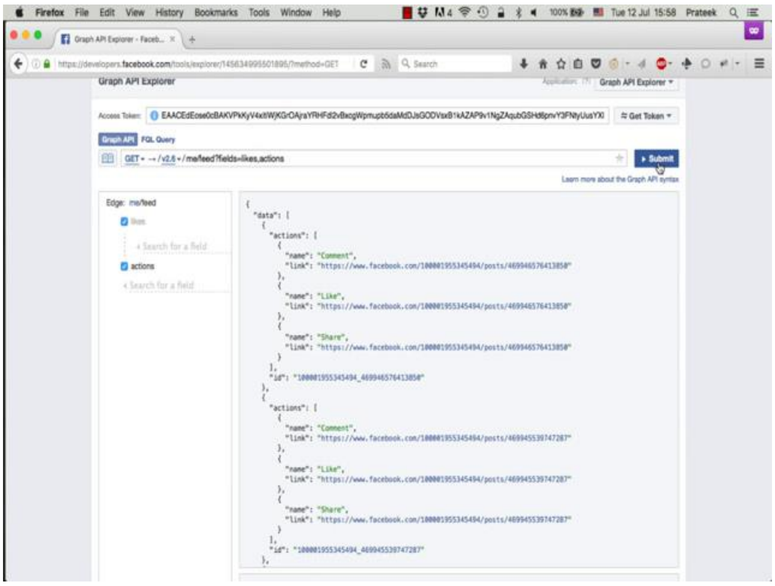
Graph API Explorer
Access Token: EAACEdEose0cBAKVPkKyV4xltWJKGrOAjraYRHFd2vBxcgWpmupb6daMdDJsGODVsxB1kAZAP9v1NgZAqubGSHd6pnvY3FNtyUusYXI
Get Token
Graph API
FQL Query
Submit
Learn more about the Graph API syntax
Edge: me/feed
☑ likes
Search for a field
limit
include_hidden
q
show_expired
since
until
with
actions
admin_creator
allowed_advertising_objectives

```
GET → /v2.6 /me/feed?fields=likes
```

```
{
  "data": [
    {
      "story": "Tom Jerry updated his profile picture.",
      "created_time": "2013-05-08T09:17:20+0000",
      "id": "100001955345494_469946576413850"
    },
    {
      "story": "Tom Jerry added a new photo.",
      "created_time": "2013-05-08T09:09:43+0000",
      "id": "100001955345494_469945539747287"
    },
    {
      "story": "Tom Jerry added a life event from August 15, 1947: Born on August 15, 1947.",
      "created_time": "1947-08-15T08:00:00+0000",
      "id": "100001955345494_762382407170264"
    }
  ],
  "paging": {
    "previous": "https://graph.facebook.com/v2.6/100001955345494/feed?format=json&since=1368004640&access_tok
    "next": "https://graph.facebook.com/v2.6/100001955345494/feed?format=json&access_token=EAACEdEose0cBAKVPk
}
```

So, you select likes, let us say actions and click submit.

(Refer Slide Time: 08:45)



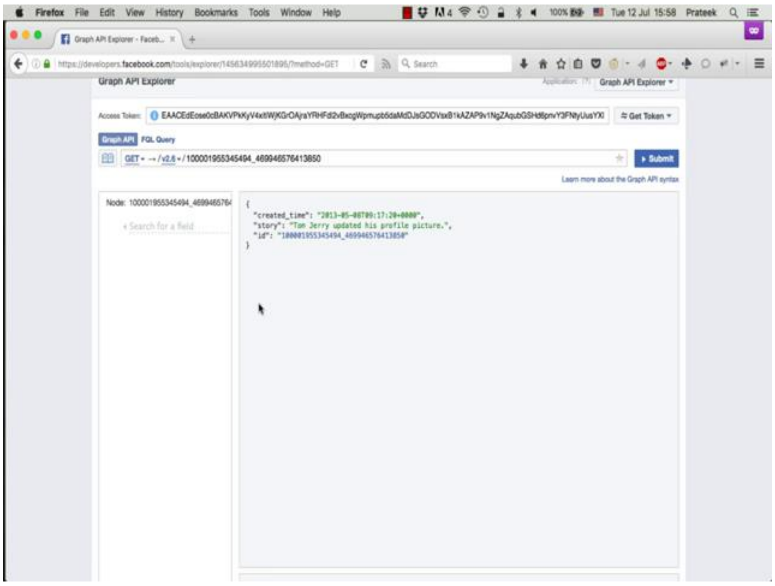
Graph API Explorer
Access Token: EAACEdEose0cBAKVPkKyV4xltWJKGrOAjraYRHFd2vBxcgWpmupb6daMdDJsGODVsxB1kAZAP9v1NgZAqubGSHd6pnvY3FNtyUusYXI
Get Token
Graph API
FQL Query
Submit
Learn more about the Graph API syntax
Edge: me/feed
☑ likes
Search for a field
☑ actions
Search for a field

```
GET → /v2.6 /me/feed?fields=likes,actions
```

```
{
  "data": [
    {
      "actions": [
        {
          "name": "Comment",
          "link": "https://www.facebook.com/100001955345494/posts/469946576413850"
        },
        {
          "name": "Like",
          "link": "https://www.facebook.com/100001955345494/posts/469946576413850"
        },
        {
          "name": "Share",
          "link": "https://www.facebook.com/100001955345494/posts/469946576413850"
        }
      ],
      "id": "100001955345494_469946576413850"
    },
    {
      "actions": [
        {
          "name": "Comment",
          "link": "https://www.facebook.com/100001955345494/posts/469945539747287"
        },
        {
          "name": "Like",
          "link": "https://www.facebook.com/100001955345494/posts/469945539747287"
        },
        {
          "name": "Share",
          "link": "https://www.facebook.com/100001955345494/posts/469945539747287"
        }
      ],
      "id": "100001955345494_469945539747287"
    },
```

And you can get these fields. So, it looks like there are 0 likes on all the user's post. So, they are not showing up. You can also look at individual post using their id; this id is unique for every posts made by any user on Facebook.

(Refer Slide Time: 09:03)


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:58 Prateek
Graph API Explorer - Faceb...
https://developers.facebook.com/tools/explorer/145634995501896/?method=GET
Graph API Explorer
Graph API Explorer
Get Token
Graph API
FQL Query
Submit
Learn more about the Graph API syntax
Search for a field

Access Token: EAACEdEose0cBAKVPkKyV4xltWjKGrOAjraYRHFd2vBxogWpmupb6daMdDJsGODVsxB1kAZAP9v1NgZAqubGSHd6pnvY3FNtyUusYXl

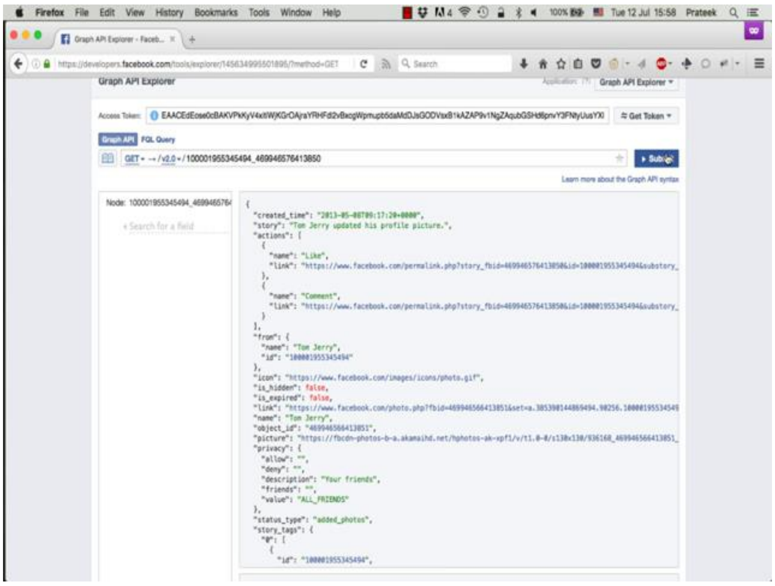
GET → /v2.6 /100001955345494_469946576413850

Node: 100001955345494_46994657 6

```
{
  "created_time": "2013-05-08T09:17:20+0000",
  "story": "Tom Jerry updated his profile picture.",
  "id": "100001955345494_469946576413850"
}
```

So, you click on id, and you get just this post. Again you can get more details if you use the version 2.0.

(Refer Slide Time: 09:14)


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 15:58 Prateek
Graph API Explorer - Faceb...
https://developers.facebook.com/tools/explorer/145634995501896/?method=GET
Graph API Explorer
Graph API Explorer
Get Token
Graph API
FQL Query
Submit
Learn more about the Graph API syntax
Search for a field

Access Token: EAACEdEose0cBAKVPkKyV4xltWjKGrOAjraYRHFd2vBxogWpmupb6daMdDJsGODVsxB1kAZAP9v1NgZAqubGSHd6pnvY3FNtyUusYXl

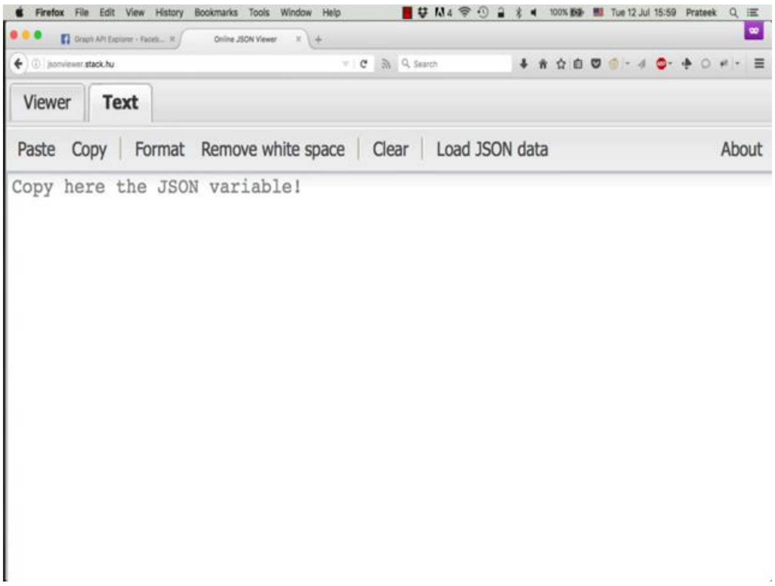
GET → /v2.0 /100001955345494_469946576413850

Node: 100001955345494_46994657 6

```
{
  "created_time": "2013-05-08T09:17:20+0000",
  "story": "Tom Jerry updated his profile picture.",
  "actions": [
    {
      "name": "Like",
      "link": "https://www.facebook.com/permalink.php?story_fbid=469946576413850&id=100001955345494&substory_
    },
    {
      "name": "Comment",
      "link": "https://www.facebook.com/permalink.php?story_fbid=469946576413850&id=100001955345494&substory_
    }
  ],
  "from": {
    "name": "Tom Jerry",
    "id": "100001955345494"
  },
  "icon": "https://www.facebook.com/images/icons/photo.gif",
  "is_hidden": false,
  "is_expired": false,
  "link": "https://www.facebook.com/photo.php?fbid=469946566413851&set=a.385398144869494.98256.10000195534549
  "name": "Tom Jerry",
  "object_id": "469946566413851",
  "picture": "https://fbcdn-photos-b-a.akamaihd.net/hphotos-ak-xpf1/v/t1.0-0/s130x130/936168_469946566413851_
  "privacy": {
    "allow": "",
    "deny": "",
    "description": "Your friends",
    "friends": "",
    "value": "ALL_FRIENDS"
  },
  "status_type": "added_photos",
  "story_tags": {
    "0": [
      {
        "id": "100001955345494",
```

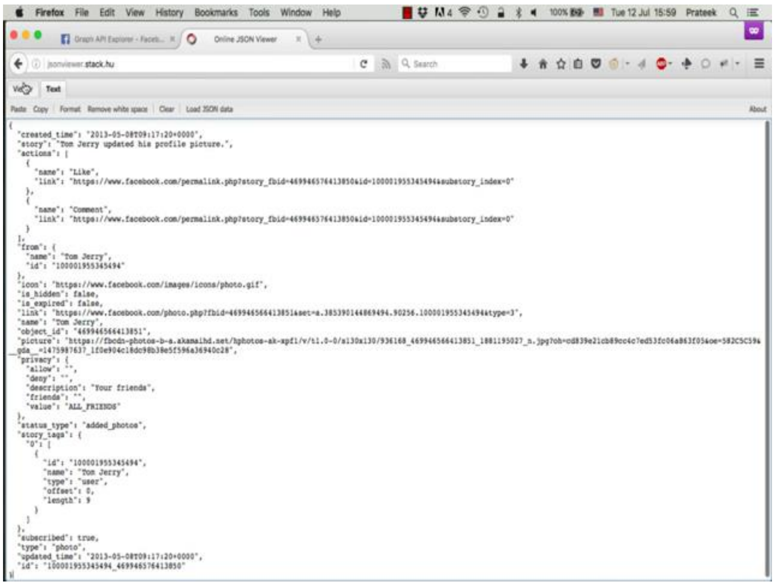
Now the graph API returns the data in a json format, which is javascript object notation format comprising of multiple curly brackets and square brackets. This json format can be hard to read sometimes. So, to make it easier to read and understand, just copy this entire response, and make sure you do not miss the starting or the ending brackets that just destroys the entire format of data. So, you select this, copy it.

(Refer Slide Time: 09:49)


Firefox File Edit View History Bookmarks Tools Window Help
Graph API Explorer - Faceb...
Online JSON Viewer
jsonviewer.stack.hu
Viewer
Text
Paste
Copy
Format
Remove white space
Clear
Load JSON data
About
Copy here the JSON variable!

And we will now see this data in the more readable format using a tool called json viewer. There are many such tools available online for free. The one we will be using is at json viewer dot stack dot hu.

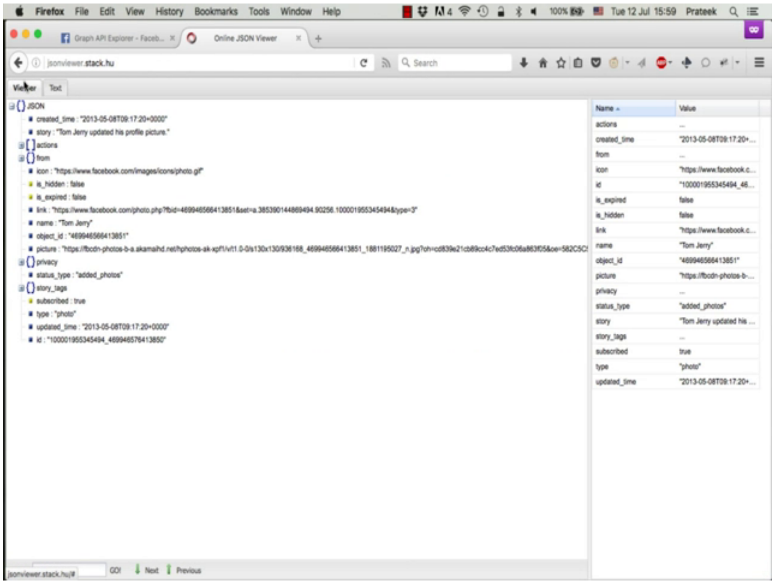
(Refer Slide Time: 09:51)


Firefox File Edit View History Bookmarks Tools Window Help
Graph API Explorer - Faceb...
Online JSON Viewer
jsonviewer.stack.hu
Viewer
Text
Paste Copy Format Remove white space Clear Load JSON data
About

```
{
  "created_time": "2013-05-08T09:17:20+0000",
  "story": "Tom Jerry updated his profile picture.",
  "actions": [
    {
      "name": "Like",
      "link": "https://www.facebook.com/permalink.php?story_fbid=469946576413850&id=100001955345494&substory_index=0"
    },
    {
      "name": "Comment",
      "link": "https://www.facebook.com/permalink.php?story_fbid=469946576413850&id=100001955345494&substory_index=0"
    }
  ],
  "from": {
    "name": "Tom Jerry",
    "id": "100001955345494"
  },
  "icon": "https://www.facebook.com/images/icons/photo.gif",
  "is_hidden": false,
  "is_expired": false,
  "link": "https://www.facebook.com/photo.php?fbid=469946566413851&set=a.385390144869494.90256.100001955345494&type=3",
  "name": "Tom Jerry",
  "object_id": "469946566413851",
  "picture": "https://fbcdn-photos-b-a.akamaihd.net/hphotos-ak-xpf1/v/t1.0-0/s130x130/936168_469946566413851_1881195027_n.jpg?oh=cd839e21cb89cc4c7ed53fc06a863f05&oe=582C5C59&__gda__=1475987637_1f0e904c18dc98b38e5f596a36940c28",
  "privacy": {
    "allow": "",
    "deny": "",
    "description": "Your friends",
    "friends": "",
    "value": "ALL_FRIENDS"
  },
  "status_type": "added_photos",
  "story_tags": {
    "0": [
      {
        "id": "100001955345494",
        "name": "Tom Jerry",
        "type": "user",
        "offset": 0,
        "length": 9
      }
    ]
  },
  "subscribed": true,
  "type": "photo",
  "updated_time": "2013-05-08T09:17:20+0000",
  "id": "100001955345494_469946576413850"
}
```

So, just paste this data that you copied.

(Refer Slide Time: 09:57)

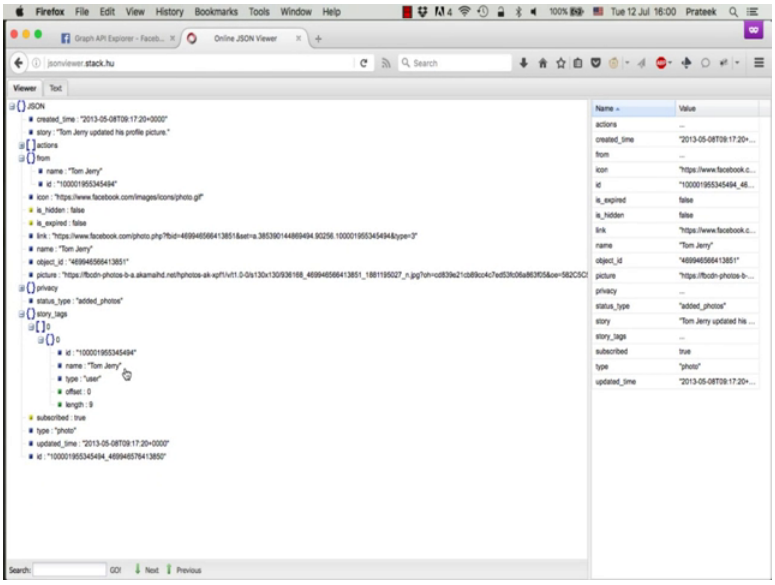


```
JSON
  created_time : "2013-05-08T09:17:20+0000"
  story : "Tom Jerry updated his profile picture."
  [ ] actions
  { } from
  icon : "https://www.facebook.com/images/icons/photo.gif"
  is_hidden : false
  is_expired : false
  link : "https://www.facebook.com/photo.php?fbid=469946566413851&set=a.385390144869494.90256.100001955345494&type=3"
  name : "Tom Jerry"
  object_id : "469946566413851"
  picture : "https://fbcdn-photos-b-a.akamaihd.net/hphotos-ak-xpf1/v/t1.0-0/s130x130/936168_469946566413851_1881195027_n.jpg?oh=cd839e21cb89cc4c7ed53fc06a863f05&oe=582C5C
  { } privacy
  status_type : "added_photos"
  { } story_tags
  subscribed : true
  type : "photo"
  updated_time : "2013-05-08T09:17:20+0000"
  id : "100001955345494_469946576413850"
```

Name	Value
actions	...
created_time	"2013-05-08T09:17:20+...
from	...
icon	"https://www.facebook.c...
id	"100001955345494_46...
is_expired	false
is_hidden	false
link	"https://www.facebook.c...
name	"Tom Jerry"
object_id	"469946566413851"
picture	"https://fbcdn-photos-b-...
privacy	...
status_type	"added_photos"
story	"Tom Jerry updated his ...
story_tags	...
subscribed	true
type	"photo"
updated_time	"2013-05-08T09:17:20+...

Go to the viewer tab and you can see the same data

(Refer Slide Time: 10:02)

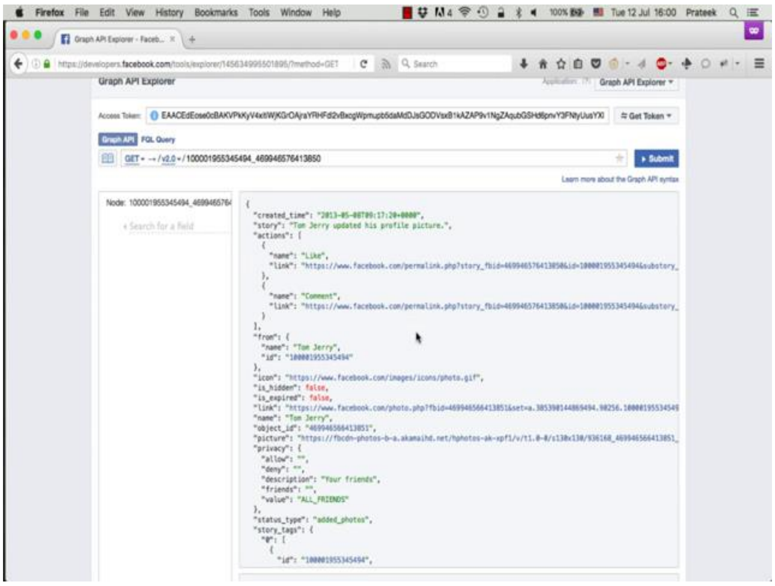


```
JSON
  created_time : "2013-05-08T09:17:20+0000"
  story : "Tom Jerry updated his profile picture."
  [ ] actions
  { } from
    name : "Tom Jerry"
    id : "100001955345494"
  icon : "https://www.facebook.com/images/icons/photo.gif"
  is_hidden : false
  is_expired : false
  link : "https://www.facebook.com/photo.php?fbid=469946566413851&set=a.385390144869494.90256.100001955345494&type=3"
  name : "Tom Jerry"
  object_id : "469946566413851"
  picture : "https://fbcdn-photos-b-a.akamaihd.net/hphotos-ak-xpf1/v/t1.0-0/s130x130/936168_469946566413851_1881195027_n.jpg?oh=cd839e21cb89cc4c7ed53fc06a863f05&oe=582C5C
  { } privacy
  status_type : "added_photos"
  { } story_tags
    [ ] 0
      { } 0
        id : "100001955345494"
        name : "Tom Jerry"
        type : "user"
        offset : 0
        length : 9
  subscribed : true
  type : "photo"
  updated_time : "2013-05-08T09:17:20+0000"
  id : "100001955345494_469946576413850"
```

Name	Value
actions	...
created_time	"2013-05-08T09:17:20+...
from	...
icon	"https://www.facebook.c...
id	"100001955345494_46...
is_expired	false
is_hidden	false
link	"https://www.facebook.c...
name	"Tom Jerry"
object_id	"469946566413851"
picture	"https://fbcdn-photos-b-...
privacy	...
status_type	"added_photos"
story	"Tom Jerry updated his ...
story_tags	...
subscribed	true
type	"photo"
updated_time	"2013-05-08T09:17:20+...

But it is much more easy to understand and easy to read. You can easily open and close brackets to view the data inside them. It just makes life a lot easier.

(Refer Slide Time: 10:20)


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 16:00 Prateek
Graph API Explorer - Faceb...
https://developers.facebook.com/tools/explorer/145634995501896/?method=GET
Search
Graph API Explorer
Application: Graph API Explorer
Get Token
Graph API
FQL Query
Submit
Learn more about the Graph API syntax
Search for a field

Access Token: EAACEdEose0cBAKVPkKyV4xitWjKGrOAjraYRHFd2vBxogWpmupb6daMdDJsGODVsxB1kAZAP9v1NgZAqubGSHd6pnvY3FNtyUusYXl

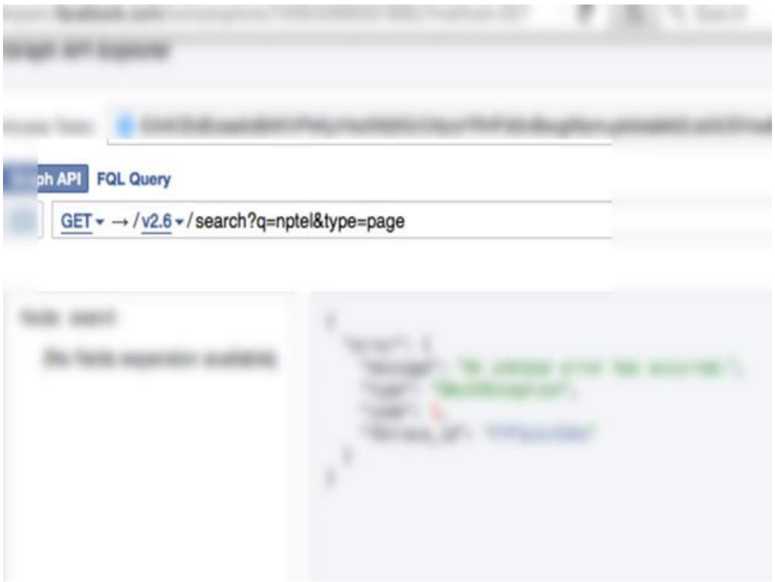
GET → /v2.0 / 100001955345494_469946576413850

Node: 100001955345494_46994657Б4

```
{
  "created_time": "2013-05-08T09:17:20+0000",
  "story": "Tom Jerry updated his profile picture.",
  "actions": [
    {
      "name": "Like",
      "link": "https://www.facebook.com/permalink.php?story_fbid=469946576413850&id=100001955345494&substory_
    },
    {
      "name": "Comment",
      "link": "https://www.facebook.com/permalink.php?story_fbid=469946576413850&id=100001955345494&substory_
    }
  ],
  "from": {
    "name": "Tom Jerry",
    "id": "100001955345494"
  },
  "icon": "https://www.facebook.com/images/icons/photo.gif",
  "is_hidden": false,
  "is_expired": false,
  "link": "https://www.facebook.com/photo.php?fbid=469946566413851&set=a.385390144869494.98256.10000195534549
  "name": "Tom Jerry",
  "object_id": "469946566413851",
  "picture": "https://fbcdn-photos-b-a.akamaihd.net/hphotos-ak-xpf1/v/t1.0-0/s130x130/936168_469946566413851_
  "privacy": {
    "allow": "",
    "deny": "",
    "description": "Your friends",
    "friends": "",
    "value": "ALL_FRIENDS"
  },
  "status_type": "added_photos",
  "story_tags": {
    "0": [
      {
        "id": "100001955345494",
```

Now you can also perform search operations using the graph API to search for users, pages, groups, events etcetera on Facebook, but note that the search only returns results whose privacy settings are set to public.

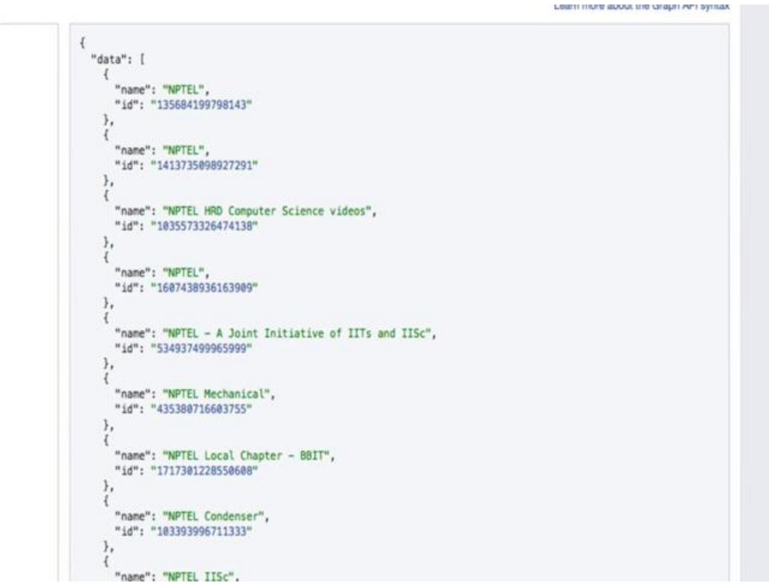
(Refer Slide Time: 10:35)



GET → /v2.6 / search?q=nptel&type=page

So, the search query has a minimum of two parameters a query parameter q lets search for nptel and a type parameter which tells the API what type of results to look for. So, let us say page. So, we are essentially searching for Facebook pages named nptel.

(Refer Slide Time: 10:53)

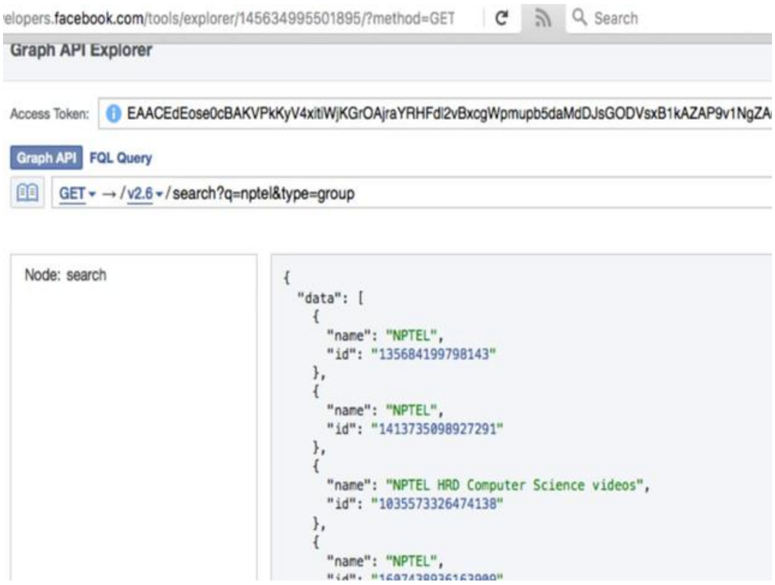


Learn more about the Graph API syntax

```
{
  "data": [
    {
      "name": "NPTEL",
      "id": "135684199798143"
    },
    {
      "name": "NPTEL",
      "id": "1413735098927291"
    },
    {
      "name": "NPTEL HRD Computer Science videos",
      "id": "1035573326474138"
    },
    {
      "name": "NPTEL",
      "id": "1607438936163909"
    },
    {
      "name": "NPTEL - A Joint Initiative of IITs and IISc",
      "id": "534937499965999"
    },
    {
      "name": "NPTEL Mechanical",
      "id": "435380716603755"
    },
    {
      "name": "NPTEL Local Chapter - BBIT",
      "id": "1717301228550608"
    },
    {
      "name": "NPTEL Condenser",
      "id": "103393996711333"
    },
    {
      "name": "NPTEL IISc",
```

So, see we got a whole list of pages with nptel in their name.

(Refer Slide Time: 11:03)



elopers.facebook.com/tools/explorer/145634995501895/?method=GET
Search
Graph API Explorer

Access Token: EAACEdEose0cBAKVPkKyV4xitiWjKGrOAjraYRHFdl2vBxcgWpmupb5daMdDJsGODVsxB1kAZAP9v1NgZA

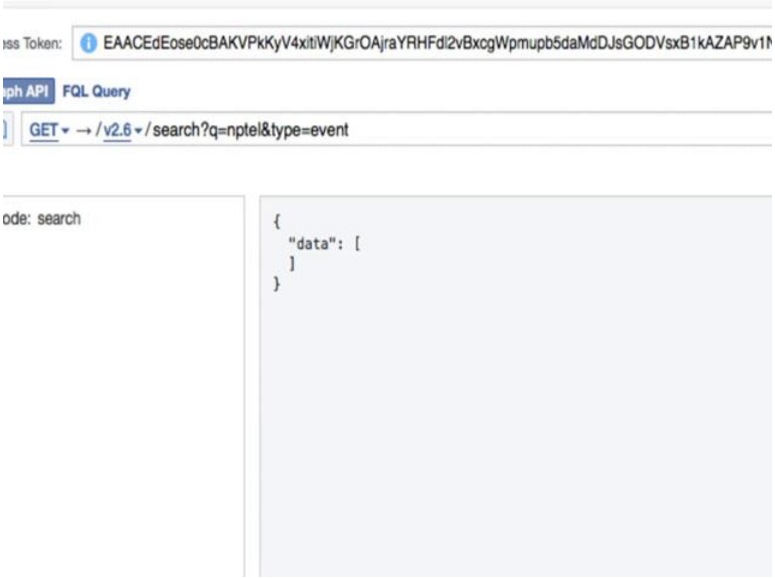
GET → /v2.6 /search?q=nptel&type=group

Node: search

```
{
  "data": [
    {
      "name": "NPTEL",
      "id": "135684199798143"
    },
    {
      "name": "NPTEL",
      "id": "1413735098927291"
    },
    {
      "name": "NPTEL HRD Computer Science videos",
      "id": "1035573326474138"
    },
    {
      "name": "NPTEL",
      "id": "1607438936163909"
```

Now, let us look for groups named nptel. So, you change the type to be group press enter and there is a bunch of groups with nptel in their name. You can see that some of these groups are closed and some of them are open.

(Refer Slide Time: 11:17)



ss Token: EAACEdEose0cBAKVPkKyV4xitiWjKGrOAjraYRHFdl2vBxcgWpmupb5daMdDJsGODVsxB1kAZAP9v1N

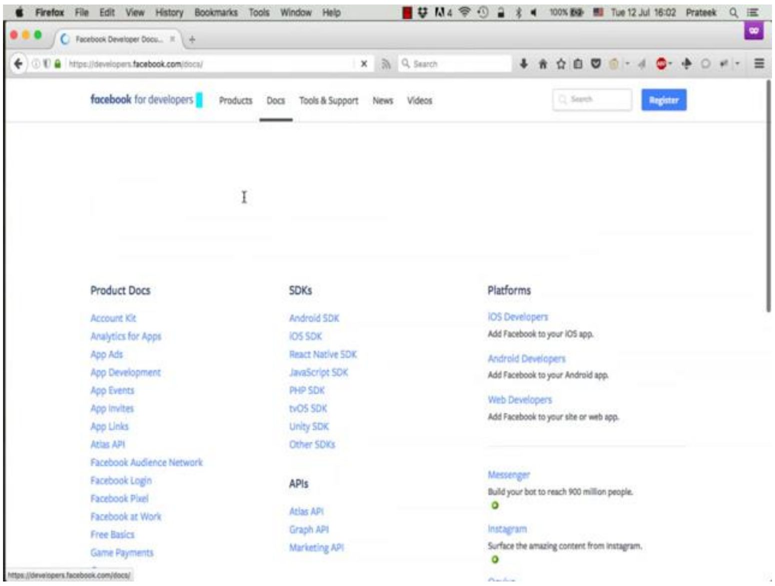
GET → /v2.6 /search?q=nptel&type=event

ode: search

```
{
  "data": [
  ]
}
```

Let us look for events now. So, type is equal to event. So, there are no Facebook events in the name of nptel right now.

(Refer Slide Time: 11:30)



Firefox File Edit View History Bookmarks Tools Window Help
100% Tue 12 Jul 16:02 Prateek
Facebook Developer Docu...
https://developers.facebook.com/docs/
Search
facebook for developers
Products
Docs
Tools & Support
News
Videos
Search
Register

Product Docs

Account Kit
Analytics for Apps
App Ads
App Development
App Events
App Invites
App Links
Atlas API
Facebook Audience Network
Facebook Login
Facebook Pixel
Facebook at Work
Free Basics
Game Payments

SDKs

Android SDK
iOS SDK
React Native SDK
JavaScript SDK
PHP SDK
tvOS SDK
Unity SDK
Other SDKs

APIs

Atlas API
Graph API
Marketing API

Platforms

iOS Developers
Add Facebook to your iOS app.

Android Developers
Add Facebook to your Android app.

Web Developers
Add Facebook to your site or web app.

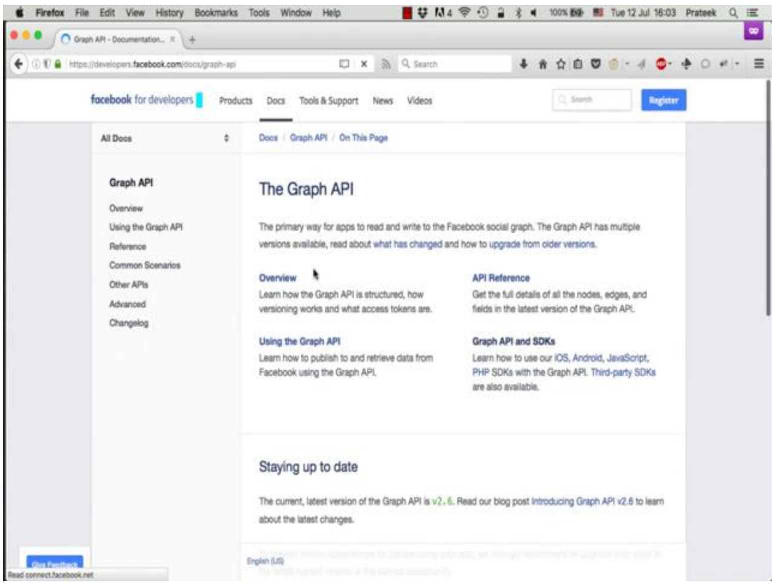
Messenger
Build your bot to reach 900 million people.

Instagram
Surface the amazing content from Instagram.

https://developers.facebook.com/docs/

So, Facebook provides this whole set of documentation that you can refer to, to learn what all you can do with the graph API.

(Refer Slide Time: 11:37)



The Graph API

The primary way for apps to read and write to the Facebook social graph. The Graph API has multiple versions available, read about what has changed and how to upgrade from older versions.

Overview
Learn how the Graph API is structured, how versioning works and what access tokens are.

API Reference
Get the full details of all the nodes, edges, and fields in the latest version of the Graph API.

Using the Graph API
Learn how to publish to and retrieve data from Facebook using the Graph API.

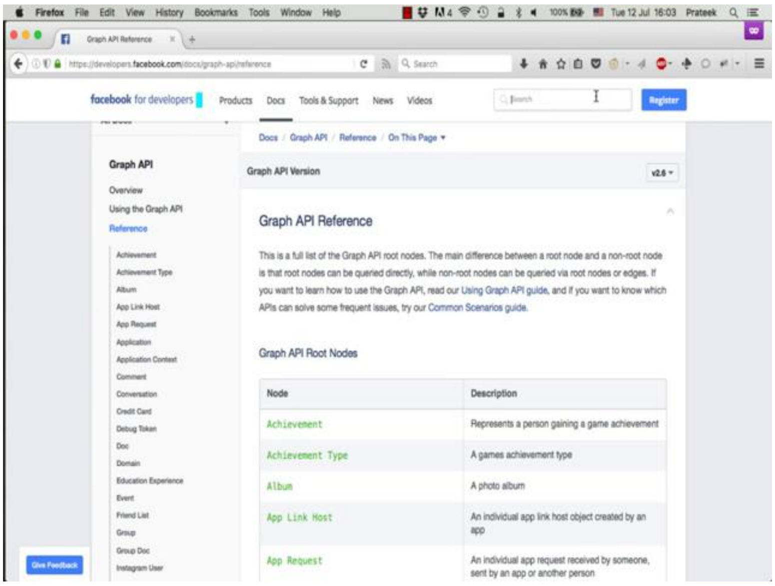
Graph API and SDKs
Learn how to use our iOS, Android, JavaScript, PHP SDKs with the Graph API. Third-party SDKs are also available.

Staying up to date

The current, latest version of the Graph API is v2.6. Read our blog post Introducing Graph API v2.6 to learn about the latest changes.

Just go to docs and click on graph API.

(Refer Slide Time: 11:50)



Graph API Reference

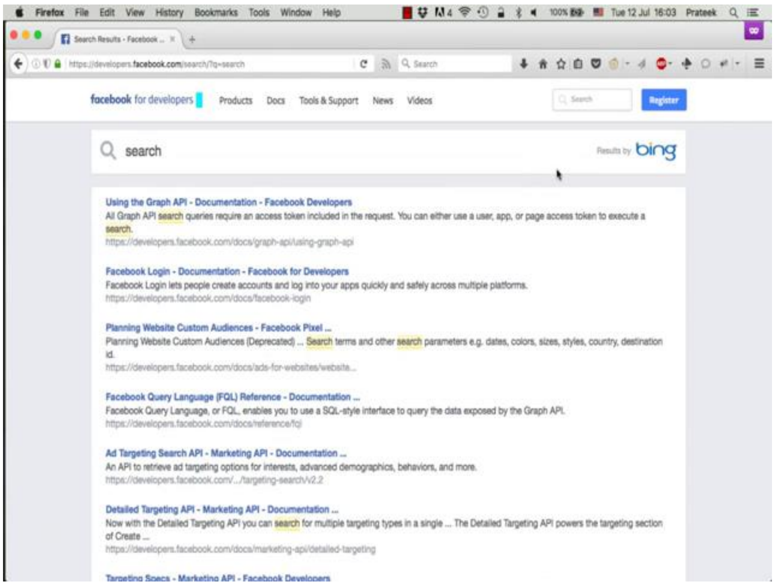
This is a full list of the Graph API root nodes. The main difference between a root node and a non-root node is that root nodes can be queried directly, while non-root nodes can be queried via root nodes or edges. If you want to learn how to use the Graph API, read our Using Graph API guide, and if you want to know which APIs can solve some frequent issues, try our Common Scenarios guide.

Graph API Root Nodes

Node	Description
`Achievement`	Represents a person gaining a game achievement
`Achievement Type`	A games achievement type
`Album`	A photo album
`App Link Host`	An individual app link host object created by an app
`App Request`	An individual app request received by someone, sent by an app or another person

You can also search the documentation for what you need.

(Refer Slide Time: 11:56)


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 16:03 Prateek
Search Results - Facebook ...
https://developers.facebook.com/search/?q=search
Search
facebook for developers
Products
Docs
Tools & Support
News
Videos
Search
Register
Results by bing

search

Using the Graph API - Documentation - Facebook Developers
All Graph API search queries require an access token included in the request. You can either use a user, app, or page access token to execute a search.
https://developers.facebook.com/docs/graph-api/using-graph-api

Facebook Login - Documentation - Facebook for Developers
Facebook Login lets people create accounts and log into your apps quickly and safely across multiple platforms.
https://developers.facebook.com/docs/facebook-login

Planning Website Custom Audiences - Facebook Pixel ...
Planning Website Custom Audiences (Deprecated) ... Search terms and other search parameters e.g. dates, colors, sizes, styles, country, destination id.
https://developers.facebook.com/docs/ads-for-websites/website...

Facebook Query Language (FQL) Reference - Documentation ...
Facebook Query Language, or FQL, enables you to use a SQL-style interface to query the data exposed by the Graph API.
https://developers.facebook.com/docs/reference/fql

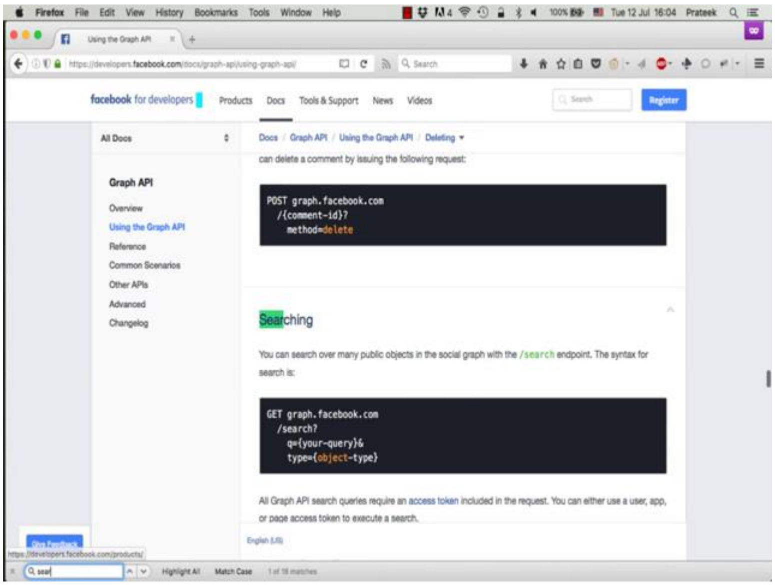
Ad Targeting Search API - Marketing API - Documentation ...
An API to retrieve ad targeting options for interests, advanced demographics, behaviors, and more.
https://developers.facebook.com/.../targeting-search/v2.2

Detailed Targeting API - Marketing API - Documentation ...
Now with the Detailed Targeting API you can search for multiple targeting types in a single ... The Detailed Targeting API powers the targeting section of Create ...
https://developers.facebook.com/docs/marketing-api/detailed-targeting

Targeting Specs - Marketing API - Facebook Developers

For example, let us look for help on the search query that we just used to search for nptel pages.

(Refer Slide Time: 12:01)



Docs / Graph API / Using the Graph API / Deleting

can delete a comment by issuing the following request:

```
POST graph.facebook.com
  /{comment-id}?
    method=delete
```

Searching

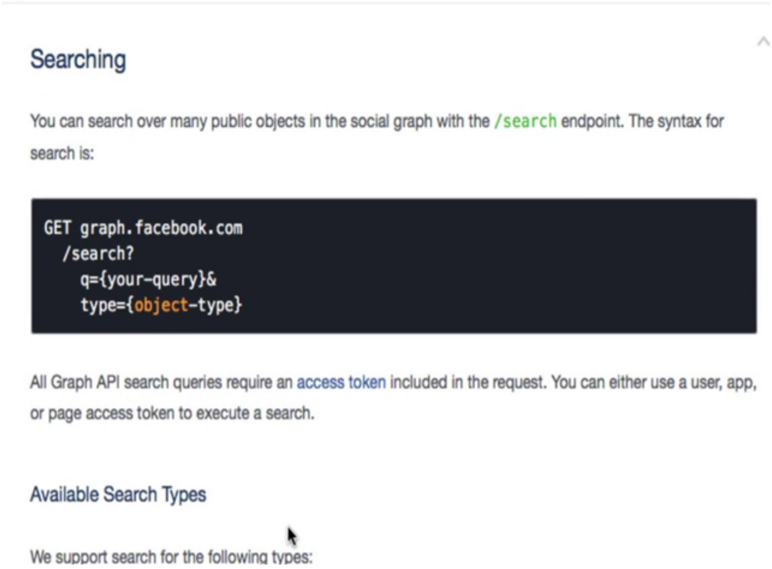
You can search over many public objects in the social graph with the /search endpoint. The syntax for search is:

```
GET graph.facebook.com
  /search?
    q={your-query}&
    type={object-type}
```

All Graph API search queries require an access token included in the request. You can either use a user, app, or page access token to execute a search.

So, this section shows you how to use graph API search.

(Refer Slide Time: 12:11)



Searching

You can search over many public objects in the social graph with the `/search` endpoint. The syntax for search is:

```
GET graph.facebook.com
  /search?
    q={your-query}&
    type={object-type}
```

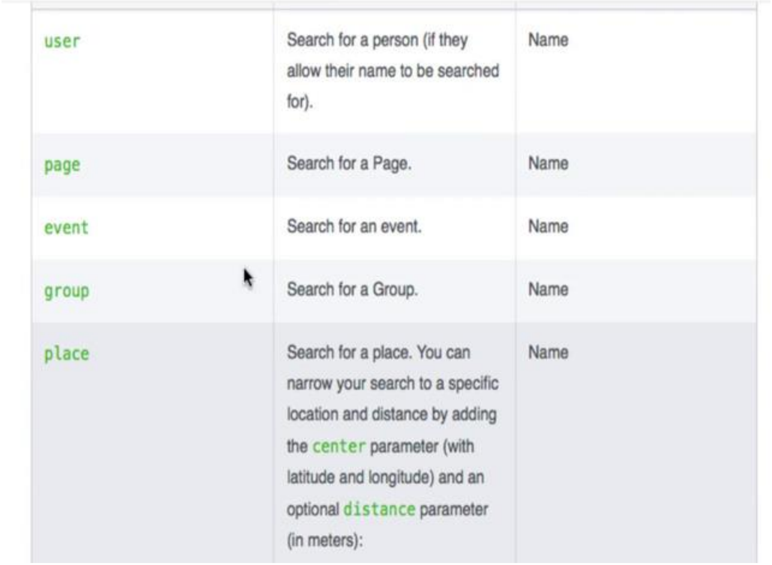
All Graph API search queries require an access token included in the request. You can either use a user, app, or page access token to execute a search.

Available Search Types

We support search for the following types:

This is exactly how we did it. Search question mark q is equal to query and Type is equal to object type.

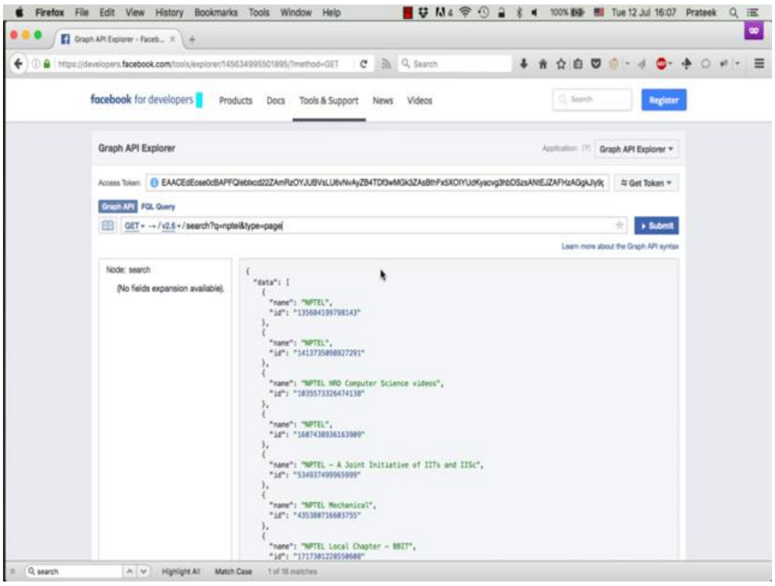
(Refer Slide Time: 12:17)



`user`	Search for a person (if they allow their name to be searched for).	Name
`page`	Search for a Page.	Name
`event`	Search for an event.	Name
`group`	Search for a Group.	Name
`place`	Search for a place. You can narrow your search to a specific location and distance by adding the `center` parameter (with latitude and longitude) and an optional `distance` parameter (in meters):	Name

If you scroll down a bit, you can see the various type of objects you can search for. Users, pages, events, groups, places etcetera.

(Refer Slide Time: 12:28)



Graph API Explorer

GET → /v2.6 /search?q=nptel&type=page

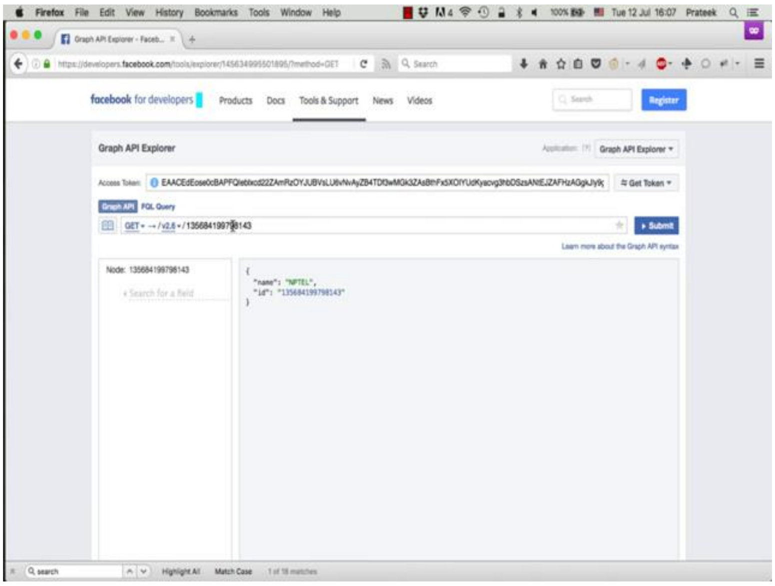
Node: search

(No fields expansion available).

```
{
  "data": [
    {
      "name": "NPTEL",
      "id": "135684199798143"
    },
    {
      "name": "NPTEL",
      "id": "1413735098927291"
    },
    {
      "name": "NPTEL HRD Computer Science videos",
      "id": "1035573326474138"
    },
    {
      "name": "NPTEL",
      "id": "1687438936163989"
    },
    {
      "name": "NPTEL - A Joint Initiative of IITs and IISc",
      "id": "534937499965999"
    },
    {
      "name": "NPTEL Mechanical",
      "id": "435380716603755"
    },
    {
      "name": "NPTEL Local Chapter - BBIT",
      "id": "171730122855068"
```

So, now let us get back to the graph API. Now when we search for pages with the name nptel, it is impossible to tell anything about the pages which show up by just looking at the search results. So, let us look at these pages manually one by one.

(Refer Slide Time: 12:45)



Graph API Explorer

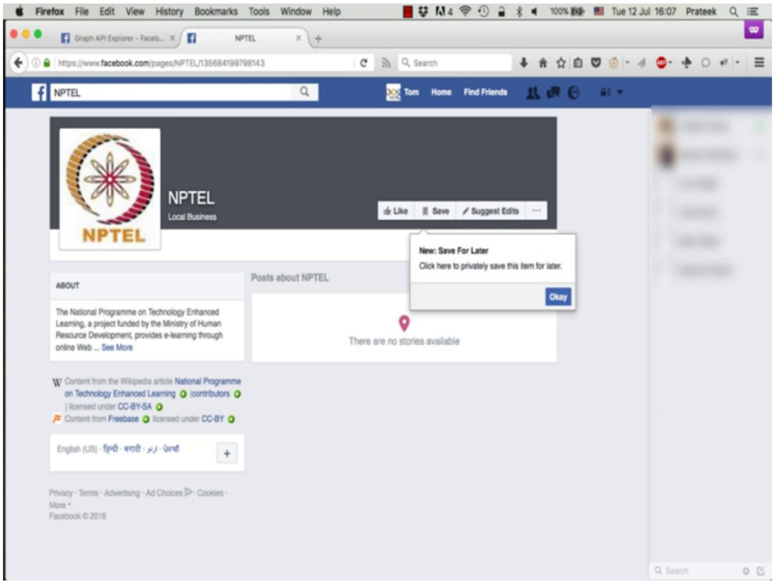
GET → /v2.6 /135684199798143

Node: 135684199798143

```
{
  "name": "NPTEL",
  "id": "135684199798143"
}
```

Click on the id field of the first search result. Copy this id and open Facebook dot com slash this id in a new tab this will open up the actual Facebook page corresponding to this id.

(Refer Slide Time: 12:56)



NPTEL

Local Business

New: Save For Later

Click here to privately save this item for later.

ABOUT

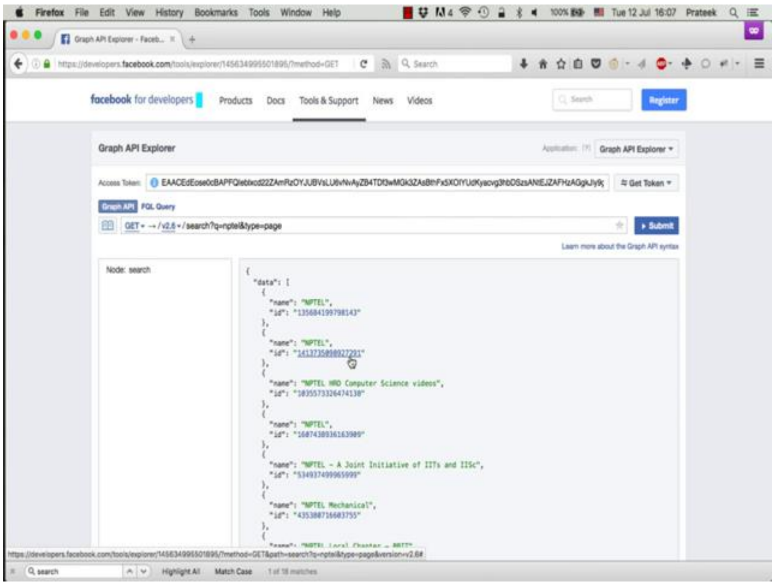
The National Programme on Technology Enhanced Learning, a project funded by the Ministry of Human Resource Development, provides e-learning through online Web ... See More

Posts about NPTEL

There are no stories available

Now if you notice this is an empty page with no posts, no real information no likes. So, this is definitely not the real nptel page.

(Refer Slide Time: 13:07)



Graph API Explorer

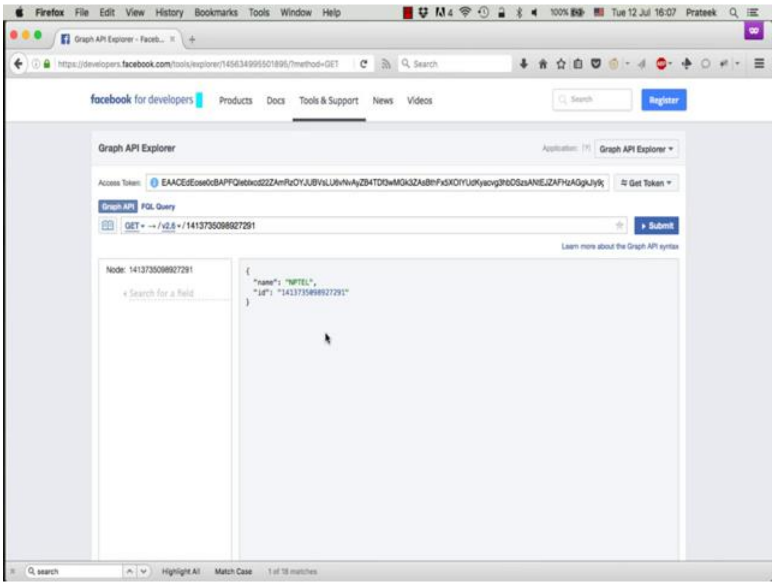
GET → /v2.6 /search?q=nptel&type=page

Node: search

```
{
  "data": [
    {
      "name": "NPTEL",
      "id": "135684199798143"
    },
    {
      "name": "NPTEL",
      "id": "1413735098927291"
    },
    {
      "name": "NPTEL HRD Computer Science videos",
      "id": "1035573326474130"
    },
    {
      "name": "NPTEL",
      "id": "1607438036163909"
    },
    {
      "name": "NPTEL - A Joint Initiative of IITs and IISc",
      "id": "534937499965999"
    },
    {
      "name": "NPTEL Mechanical",
      "id": "435380716603755"
    },
    {
      "name": "NPTEL Local Chapter - BBIT"
```

So, now, let us look at the next result; same process.

(Refer Slide Time: 13:18)



Graph API Explorer

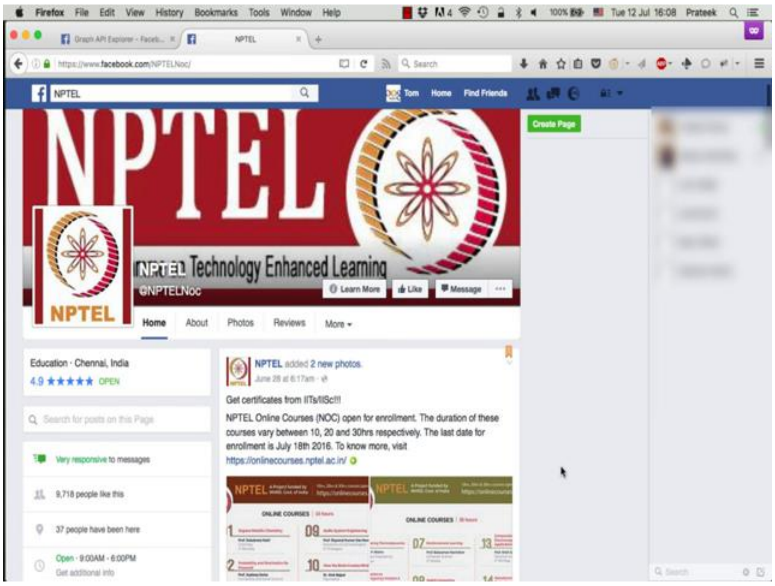
GET → /v2.6 / 1413735098927291

Node: 1413735098927291

```
{
  "name": "NPTEL",
  "id": "1413735098927291"
}
```

Click on the id of the next result copy this id and open Facebook dot com slash id in a new tab.

(Refer Slide Time: 13:25)



https://www.facebook.com/NPTELNoc/

NPTEL Technology Enhanced Learning
@NPTELNoc

Education · Chennai, India
4.9 ★★★★★ OPEN

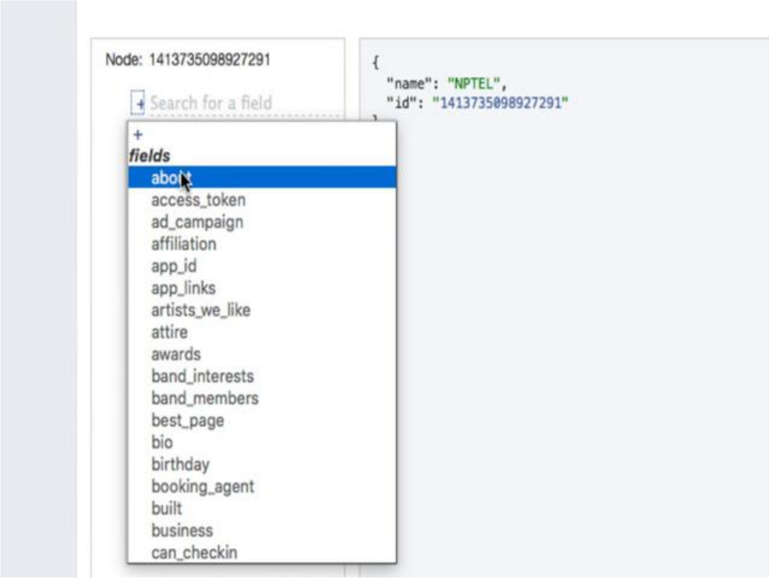
Very responsive to messages
9,718 people like this
37 people have been here
Open · 9:00AM - 6:00PM

NPTEL added 2 new photos.
June 28 at 6:17am

Get certificates from IITs/IISc!!!
NPTEL Online Courses (NOC) open for enrollment. The duration of these courses vary between 10, 20 and 30hrs respectively. The last date for enrollment is July 18th 2016. To know more, visit https://onlinecourses.nptel.ac.in/

So, this looks much more like a genuine nptel page. It is rated 4.9 on 5, close to 10000 likes; the descriptions says it is very responsive to messages. So, now let us try to extract data from this page using the API.

(Refer Slide Time: 13:53)

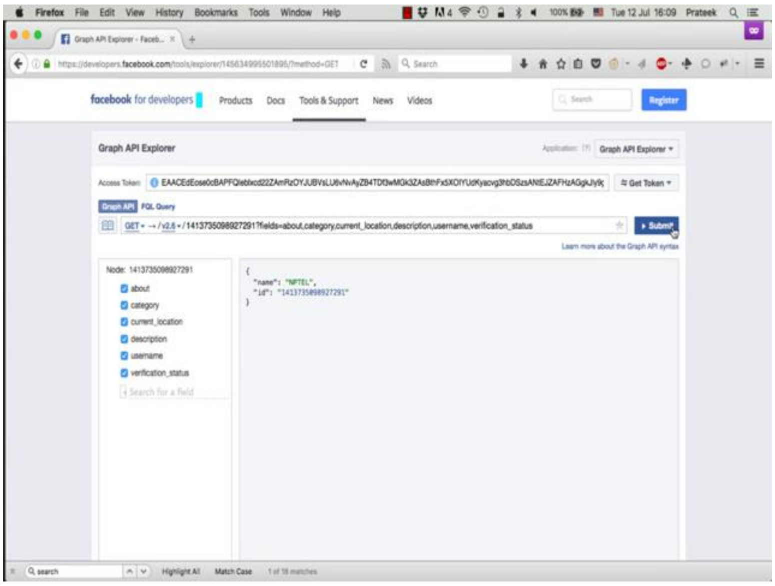


Node: 1413735098927291

```
{
  "name": "NPTEL",
  "id": "1413735098927291"
```

Let us try to get the about field and say category of the page, then current location, description, username and verification status.

(Refer Slide Time: 14:12)



https://developers.facebook.com/tools/explorer/145634995501895/?method=GET

Access Token: EAACEdEose0cBAPFQlebIxcd22ZAmRzOYJUBVsLU6vNvAyZB4TDf3wMGk3ZAsBthFx5XOlYUdKyacvg3hbDSzsANtEJZAFHzAGgkJly9(

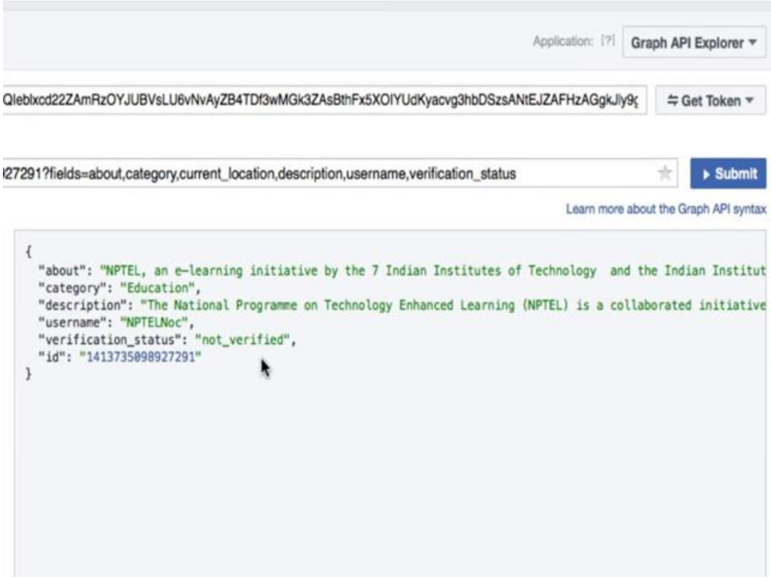
GET → /v2.6 /1413735098927291?fields=about,category,current_location,description,username,verification_status

Node: 1413735098927291

☑ about
☑ category
☑ current_location
☑ description
☑ username
☑ verification_status

```
{
  "name": "NPTEL",
  "id": "1413735098927291"
}
```

(Refer Slide Time: 14:15)

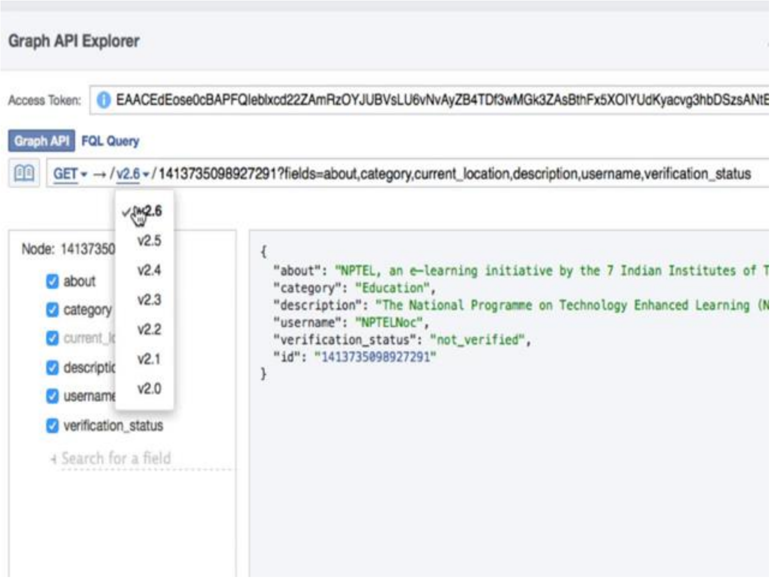

Application: [?]
Graph API Explorer ▾
Qleblxcd22ZAmRzOYJUBVsLU6vNvAyZB4TDf3wMGk3ZAsBthFx5XOIYUdKyacvg3hbDSzsANtEJZAFHzAGgkJly9ç
⇋ Get Token ▾
▸ Submit
Learn more about the Graph API syntax

```
27291?fields=about,category,current_location,description,username,verification_status
```

```
{
  "about": "NPTEL, an e-learning initiative by the 7 Indian Institutes of Technology  and the Indian Institut
  "category": "Education",
  "description": "The National Programme on Technology Enhanced Learning (NPTEL) is a collaborated initiative
  "username": "NPTELNoc",
  "verification_status": "not_verified",
  "id": "1413735098927291"
}
```

And there you see the page is not verified and all the other bunch of information we requested for. Now, let us switch to version 2.0 of the API, like we did a few minutes ago and see what all information is available for the page.

(Refer Slide Time: 14:28)

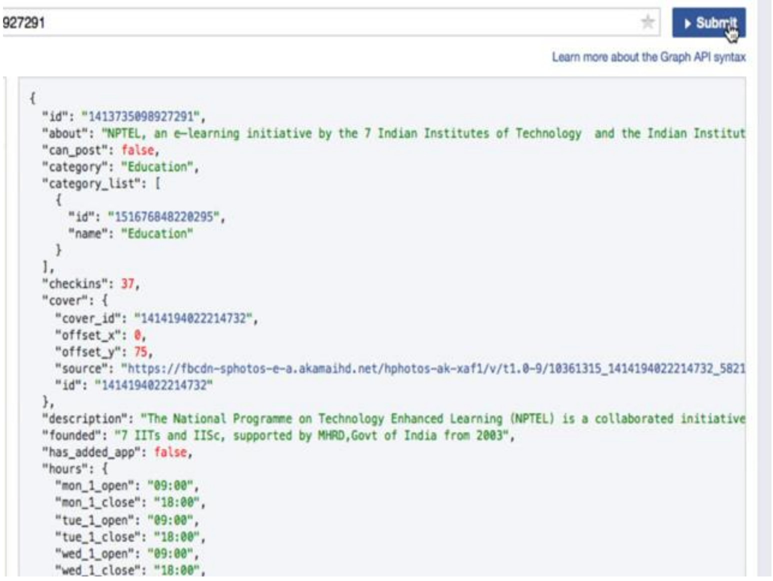


```
GET → /v2.6 /1413735098927291?fields=about,category,current_location,description,username,verification_status
```

```
{
  "about": "NPTEL, an e-learning initiative by the 7 Indian Institutes of T
  "category": "Education",
  "description": "The National Programme on Technology Enhanced Learning (N
  "username": "NPTELNoc",
  "verification_status": "not_verified",
  "id": "1413735098927291"
}
```

Now select 2.0 from the drop down remove these fields and click submit.

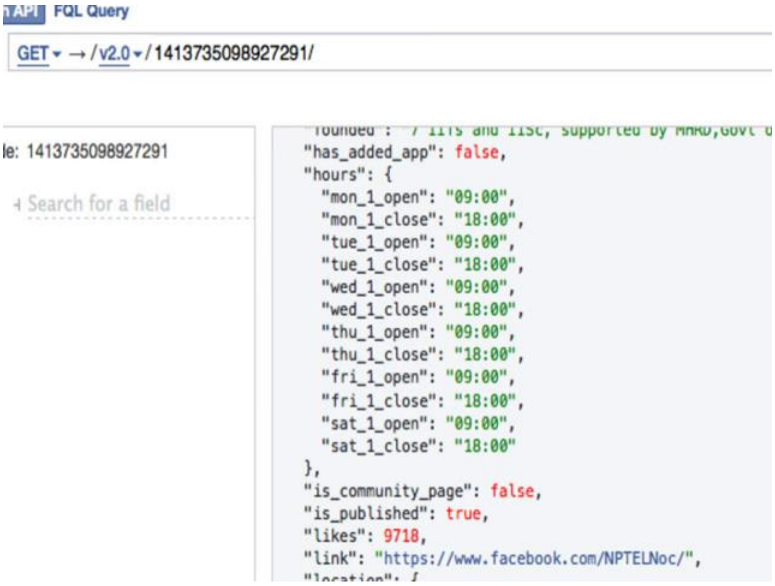
(Refer Slide Time: 14:36)



```
{
  "id": "1413735098927291",
  "about": "NPTEL, an e-learning initiative by the 7 Indian Institutes of Technology  and the Indian Institut
  "can_post": false,
  "category": "Education",
  "category_list": [
    {
      "id": "151676848220295",
      "name": "Education"
    }
  ],
  "checkins": 37,
  "cover": {
    "cover_id": "1414194022214732",
    "offset_x": 0,
    "offset_y": 75,
    "source": "https://fbcdn-sphotos-e-a.akamaihd.net/hphotos-ak-xaf1/v/t1.0-9/10361315_1414194022214732_5821
    "id": "1414194022214732"
  },
  "description": "The National Programme on Technology Enhanced Learning (NPTEL) is a collaborated initiative
  "founded": "7 IITs and IISc, supported by MHRD,Govt of India from 2003",
  "has_added_app": false,
  "hours": {
    "mon_1_open": "09:00",
    "mon_1_close": "18:00",
    "tue_1_open": "09:00",
    "tue_1_close": "18:00",
    "wed_1_open": "09:00",
    "wed_1_close": "18:00",
```

And look at this, you have category, check-ins, details about the cover picture of the page, opening and closing hours, location with latitude and longitude, phone number, number of people who liked this page and so on.

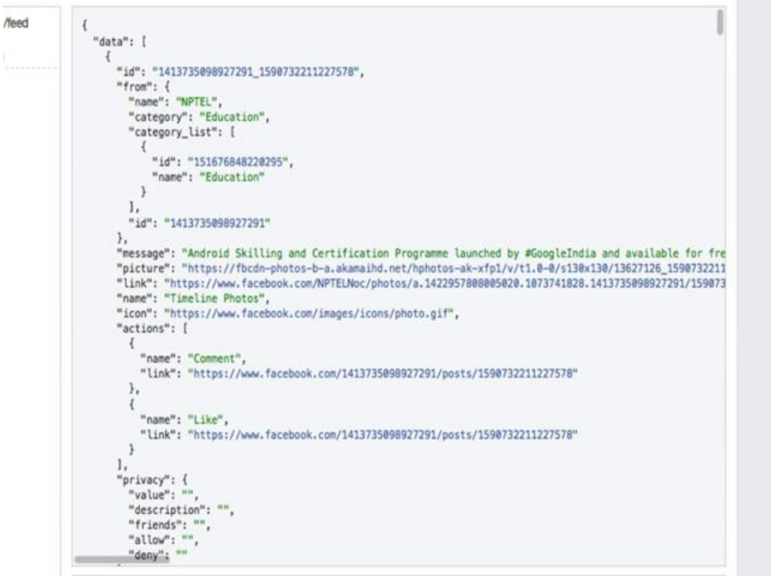
(Refer Slide Time: 15:01)



```
  "founded": "7 IITs and IISc, supported by MHRD,Govt o
  "has_added_app": false,
  "hours": {
    "mon_1_open": "09:00",
    "mon_1_close": "18:00",
    "tue_1_open": "09:00",
    "tue_1_close": "18:00",
    "wed_1_open": "09:00",
    "wed_1_close": "18:00",
    "thu_1_open": "09:00",
    "thu_1_close": "18:00",
    "fri_1_open": "09:00",
    "fri_1_close": "18:00",
    "sat_1_open": "09:00",
    "sat_1_close": "18:00"
  },
  "is_community_page": false,
  "is_published": true,
  "likes": 9718,
  "link": "https://www.facebook.com/NPTELNoc/",
  "location": {
```

Now you can also get the page feed meaning all the posts that appear on the page when you open it. In the query bar, just add slash feed after the page id and press enter.

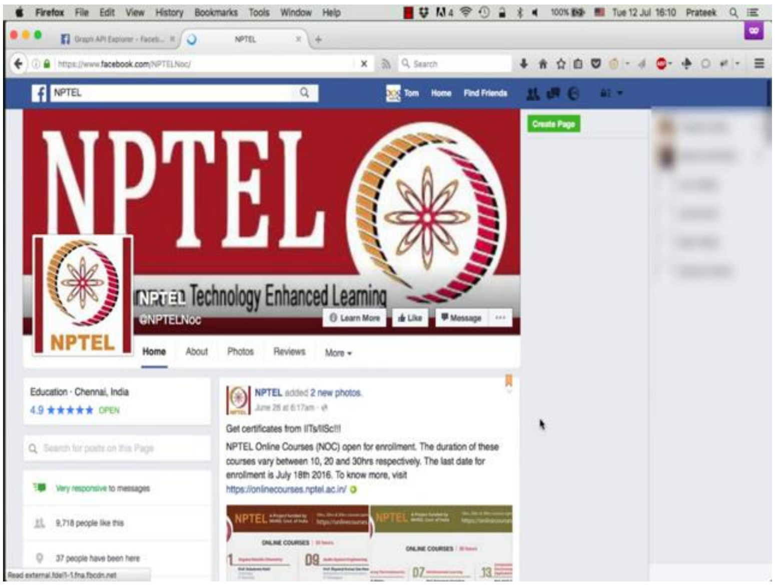
(Refer Slide Time: 15:06)



```
{
  "data": [
    {
      "id": "1413735098927291_1590732211227578",
      "from": {
        "name": "NPTEL",
        "category": "Education",
        "category_list": [
          {
            "id": "151676848220295",
            "name": "Education"
          }
        ],
        "id": "1413735098927291"
      },
      "message": "Android Skilling and Certification Programme launched by #GoogleIndia and available for fre
      "picture": "https://fbcdn-photos-b-a.akamaihd.net/hphotos-ak-xfp1/v/t1.0-0/s130x130/13627126_1590732211
      "link": "https://www.facebook.com/NPTELNoc/photos/a.1422957808005020.1073741828.1413735098927291/159073
      "name": "Timeline Photos",
      "icon": "https://www.facebook.com/images/icons/photo.gif",
      "actions": [
        {
          "name": "Comment",
          "link": "https://www.facebook.com/1413735098927291/posts/1590732211227578"
        },
        {
          "name": "Like",
          "link": "https://www.facebook.com/1413735098927291/posts/1590732211227578"
        }
      ],
      "privacy": {
        "value": "",
        "description": "",
        "friends": "",
        "allow": "",
        "deny": ""
```

So, you see a list of all the posts that the page has done and all the posts that any other Facebook user or page has done on this nptel page here. This usually appears in reverse chronological order; meaning most recent posts come first. The first most recent post says something about android skills and certification programme launched by Google India.

(Refer Slide Time: 15:35)



Firefox File Edit View History Bookmarks Tools Window Help
100% Tue 12 Jul 16:10 Prateek
Graph API Explorer - Faceb...
NPTEL
https://www.facebook.com/NPTELNoc/
Search
NPTEL
Tom Home Find Friends
Create Page
NPTEL
Technology Enhanced Learning
NPTEL
@NPTELNoc
Learn More
Like
Message
Home
About
Photos
Reviews
More
Education · Chennai, India
4.9 ★★★★★ OPEN
Search for posts on this Page
Very responsive to messages
9,718 people like this
37 people have been here
Read external.fdel1-1.fna.fbcdn.net

NPTEL added 2 new photos.
June 28 at 6:17am

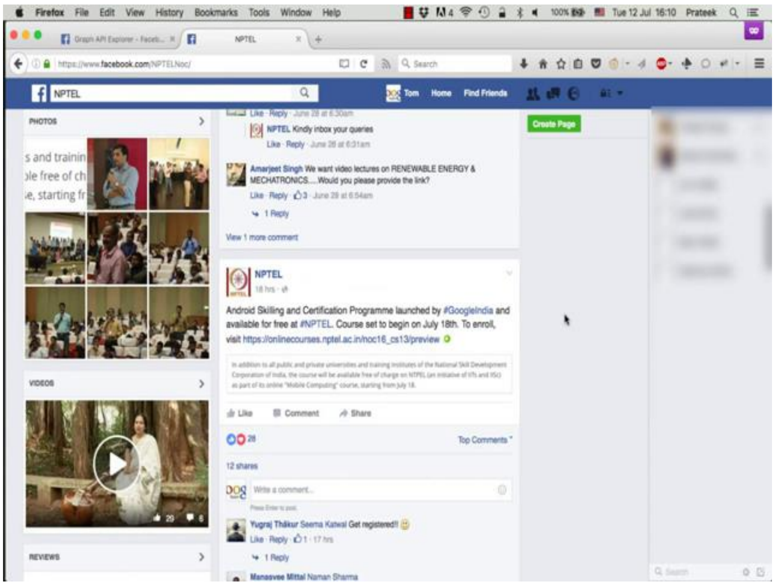
Get certificates from IITs/IISc!!!

NPTEL Online Courses (NOC) open for enrollment. The duration of these courses vary between 10, 20 and 30hrs respectively. The last date for enrollment is July 18th 2016. To know more, visit https://onlinecourses.nptel.ac.in/

NPTEL
ONLINE COURSES
NPTEL
ONLINE COURSES

You can verify it is the same content as on the page. Let us go back to the page. So, this first post is actually a pinned post. Page administrators can pin a particular post, which they want everyone to see whenever they visit the page at the top.

(Refer Slide Time: 15:48)



NPTEL Kindly inbox your queries
Like · Reply · June 28 at 6:31am

Amarjeet Singh We want video lectures on RENEWABLE ENERGY & MECHATRONICS....Would you please provide the link?
Like · Reply · 3 · June 28 at 6:54am
1 Reply

View 1 more comment

NPTEL
18 hrs

Android Skilling and Certification Programme launched by #GoogleIndia and available for free at #NPTEL. Course set to begin on July 18th. To enroll, visit https://onlinecourses.nptel.ac.in/noc16_cs13/preview

In addition to all public and private universities and training institutes of the National Skill Development Corporation of India, the course will be available free of charge on NPTEL (an initiative of IITs and IISc) as part of its online "Mobile Computing" course, starting from July 18.

28
12 shares

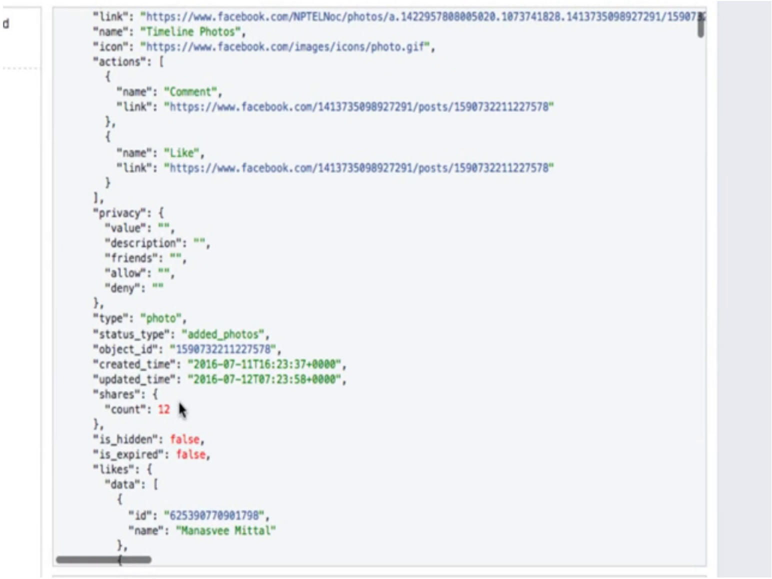
Yugraj Thakur Seema Katwal Get registered!!
Like · Reply · 1 · 17 hrs
1 Reply

Manasvee Mittal Naman Sharma

Firefox File Edit View History Bookmarks Tools Window Help
Graph API Explorer - Faceb...
NPTEL
https://www.facebook.com/NPTELNoc/
Search
NPTEL
Tom Home Find Friends
PHOTOS
VIDEOS
REVIEWS
Like Comment Share
Top Comments
Write a comment...
Create Page

But if you scroll down a bit you will see the remaining posts in the most recent first order. So, here it is the same post that we saw in the API, the android skill and certification programme post.

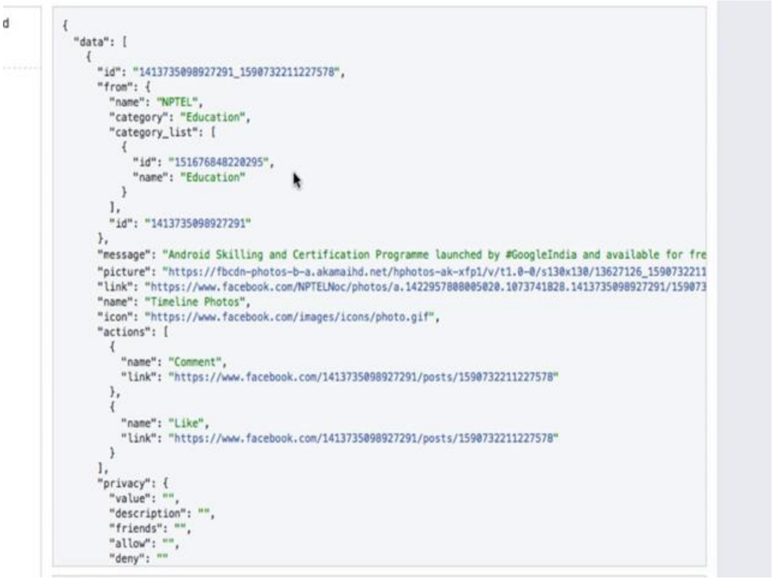
(Refer Slide Time: 16:03)



```
"link": "https://www.facebook.com/NPTELNoc/photos/a.1422957808005020.1073741828.1413735098927291/15907
"name": "Timeline Photos",
"icon": "https://www.facebook.com/images/icons/photo.gif",
"actions": [
  {
    "name": "Comment",
    "link": "https://www.facebook.com/1413735098927291/posts/1590732211227578"
  },
  {
    "name": "Like",
    "link": "https://www.facebook.com/1413735098927291/posts/1590732211227578"
  }
],
"privacy": {
  "value": "",
  "description": "",
  "friends": "",
  "allow": "",
  "deny": ""
},
"type": "photo",
"status_type": "added_photos",
"object_id": "1590732211227578",
"created_time": "2016-07-11T16:23:37+0000",
"updated_time": "2016-07-12T07:23:58+0000",
"shares": {
  "count": 12
},
"is_hidden": false,
"is_expired": false,
"likes": {
  "data": [
    {
      "id": "625390770901798",
      "name": "Manasvee Mittal"
    },
```

So, from the API itself, you can see that it has been shared 12 times. There is this entire list of people who have liked this post, and also the entire list of people who have commented on this post along with the common text and tags and likes on the comments etcetera.

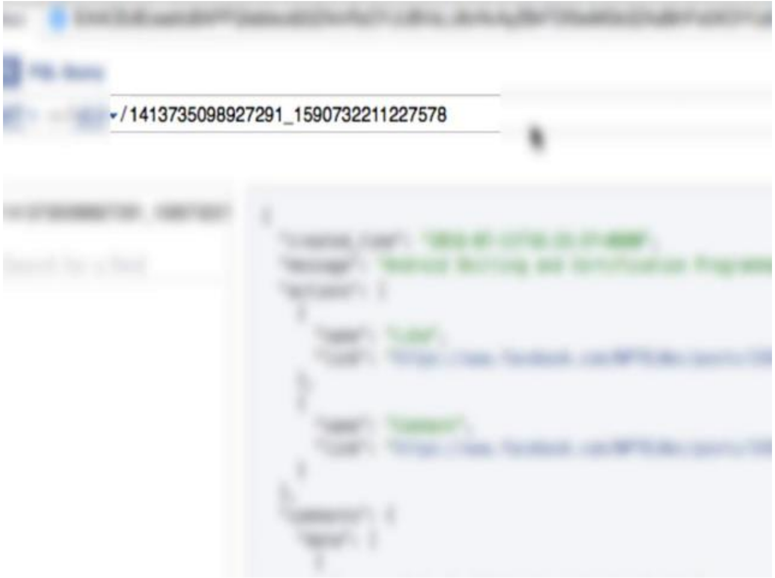
(Refer Slide Time: 16:24)



```
{
  "data": [
    {
      "id": "1413735098927291_1590732211227578",
      "from": {
        "name": "NPTEL",
        "category": "Education",
        "category_list": [
          {
            "id": "151676848220295",
            "name": "Education"
          }
        ],
        "id": "1413735098927291"
      },
      "message": "Android Skilling and Certification Programme launched by #GoogleIndia and available for fre
      "picture": "https://fbcdn-photos-b-a.akamaihd.net/hphotos-ak-xfp1/v/t1.0-0/s130x130/13627126_1590732211
      "link": "https://www.facebook.com/NPTELNoc/photos/a.1422957808005020.1073741828.1413735098927291/159073
      "name": "Timeline Photos",
      "icon": "https://www.facebook.com/images/icons/photo.gif",
      "actions": [
        {
          "name": "Comment",
          "link": "https://www.facebook.com/1413735098927291/posts/1590732211227578"
        },
        {
          "name": "Like",
          "link": "https://www.facebook.com/1413735098927291/posts/1590732211227578"
        }
      ],
      "privacy": {
        "value": "",
        "description": "",
        "friends": "",
        "allow": "",
        "deny": ""
```

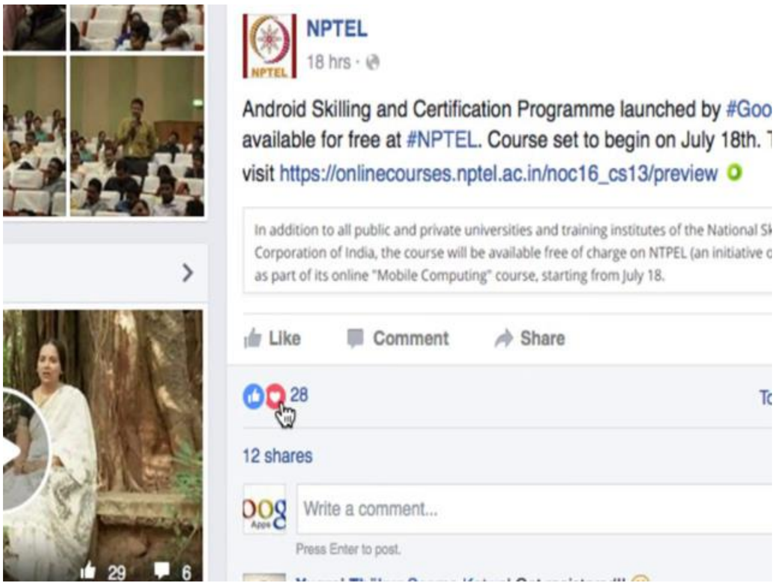
So, just like we saw that we can view individual search results by clicking on the id, we can also view individual posts by clicking on the id of the post.

(Refer Slide Time: 16:35)



Now while pages and groups etcetera have a numeric id, posts follow a slightly different format when it comes to ids. The id of each post on Facebook is of the format user id underscore post id, where user id is the id of the user who created this post. So, here the number before the underscore is the page id of the NPTEL and the number after the underscore corresponds to the post you can combine these two and you get the complete post id.

(Refer Slide Time: 17:02)



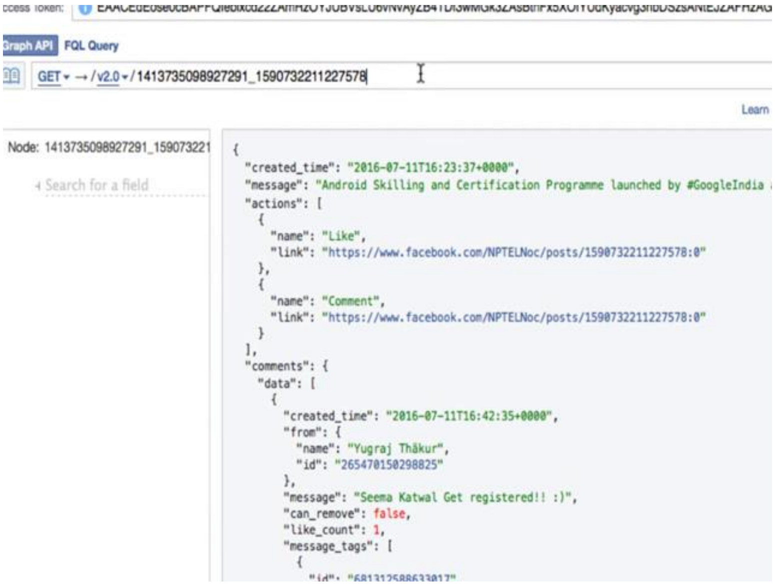
NPTEL
18 hrs ·

Android Skilling and Certification Programme launched by #Goo
available for free at #NPTEL. Course set to begin on July 18th. T
visit https://onlinecourses.nptel.ac.in/noc16_cs13/preview

In addition to all public and private universities and training institutes of the National Sk
Corporation of India, the course will be available free of charge on NTPEL (an initiative o
as part of its online "Mobile Computing" course, starting from July 18.

Now, Facebook recently launched reactions for post, which allows users to show reactions like happiness, anger, love, etcetera, in addition to liking a post. So, if you look again this post, there are 28 people in all who have reacted to this post, and one person has loved this post.

(Refer Slide Time: 17:21)



ccess Token: EAACEdEose0cBAPFQIebIxcd222AmHZ0YJUBVsLU6vNVAy2B4TDI3WMGK3ZASBthFX5XOIYUdKyacvg3nbDSZsANtEJZAFHZAG

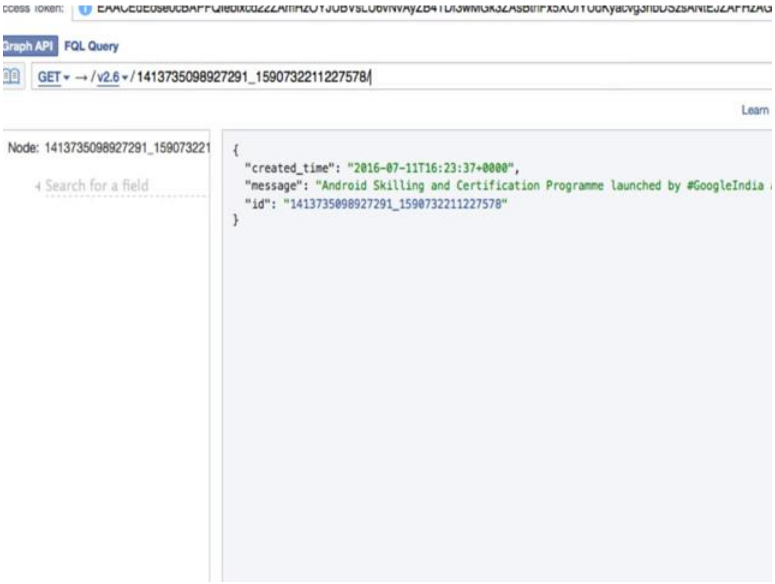
GET → /v2.0 /1413735098927291_1590732211227578

Node: 1413735098927291_159073221

```
{
  "created_time": "2016-07-11T16:23:37+0000",
  "message": "Android Skilling and Certification Programme launched by #GoogleIndia
  "actions": [
    {
      "name": "Like",
      "link": "https://www.facebook.com/NPTELNoc/posts/1590732211227578:0"
    },
    {
      "name": "Comment",
      "link": "https://www.facebook.com/NPTELNoc/posts/1590732211227578:0"
    }
  ],
  "comments": {
    "data": [
      {
        "created_time": "2016-07-11T16:42:35+0000",
        "from": {
          "name": "Yugraj Thākur",
          "id": "265470150298825"
        },
        "message": "Seema Katwal Get registered!! :)",
        "can_remove": false,
        "like_count": 1,
        "message_tags": [
          {
            "id": "681312588633017"
```

Now with the version 2.6 of the API, it is possible to get these reactions on the APIs as well. Select version 2.6.

(Refer Slide Time: 17:27)



ccess Token: EAACEdEose0cBAPFQIebIxcd222AmHZ0YJUBVsLU6vNVAy2B4TDI3WMGK3ZASBthFX5XOIYUdKyacvg3nbDSZsANtEJZAFHZAG

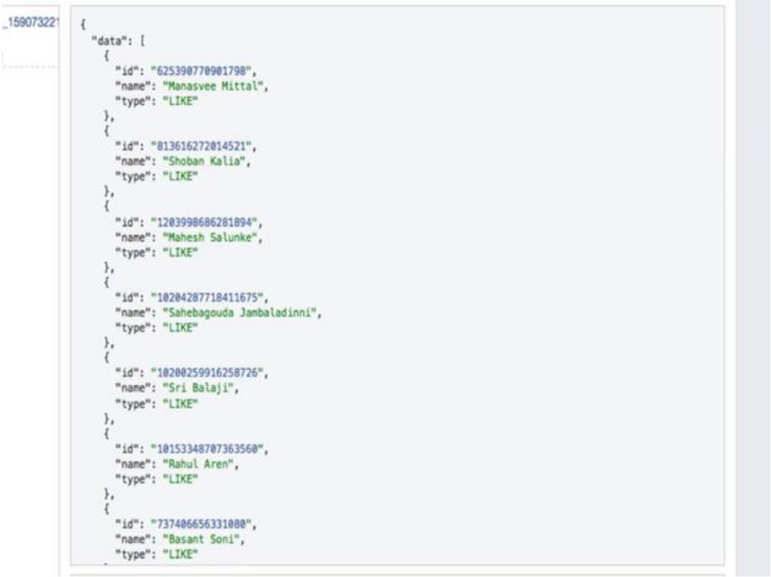
GET → /v2.6 /1413735098927291_1590732211227578/

Node: 1413735098927291_159073221

```
{
  "created_time": "2016-07-11T16:23:37+0000",
  "message": "Android Skilling and Certification Programme launched by #GoogleIndia
  "id": "1413735098927291_1590732211227578"
}
```

And type, slash reaction after the post id in the query bar.

(Refer Slide Time: 17:31)

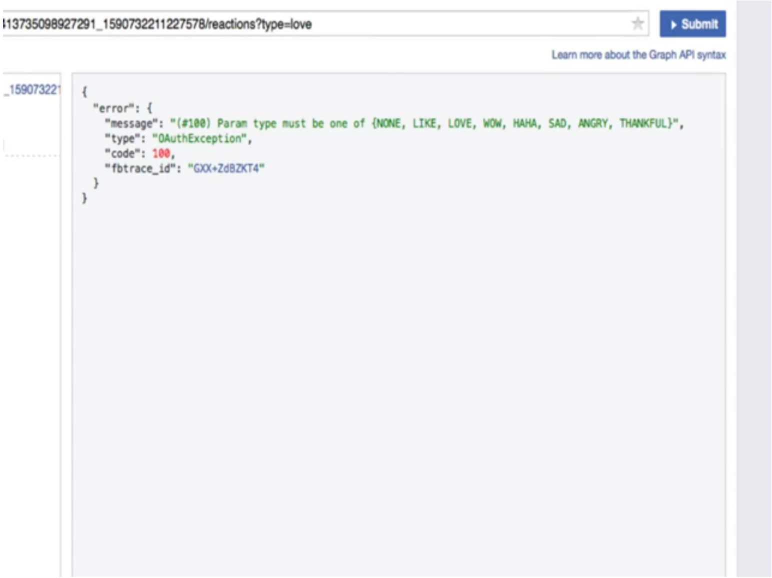


_159073221

```
{
  "data": [
    {
      "id": "625390770901798",
      "name": "Manasvee Mittal",
      "type": "LIKE"
    },
    {
      "id": "813616272014521",
      "name": "Shoban Kalia",
      "type": "LIKE"
    },
    {
      "id": "1203998686281894",
      "name": "Mahesh Salunke",
      "type": "LIKE"
    },
    {
      "id": "10204287718411675",
      "name": "Sahebagouda Jambaladinni",
      "type": "LIKE"
    },
    {
      "id": "10200259916258726",
      "name": "Sri Balaji",
      "type": "LIKE"
    },
    {
      "id": "10153348707363560",
      "name": "Rahul Aren",
      "type": "LIKE"
    },
    {
      "id": "737406656331080",
      "name": "Basant Soni",
      "type": "LIKE"
```

So, this returns the list of all the people who reacted to this post along with the type of reaction. You can even filter these results based on a particular reaction. So, let us say we only want the list of people, who loved this post, you add question mark type is equal to love in the query and press enter.

(Refer Slide Time: 17:48)

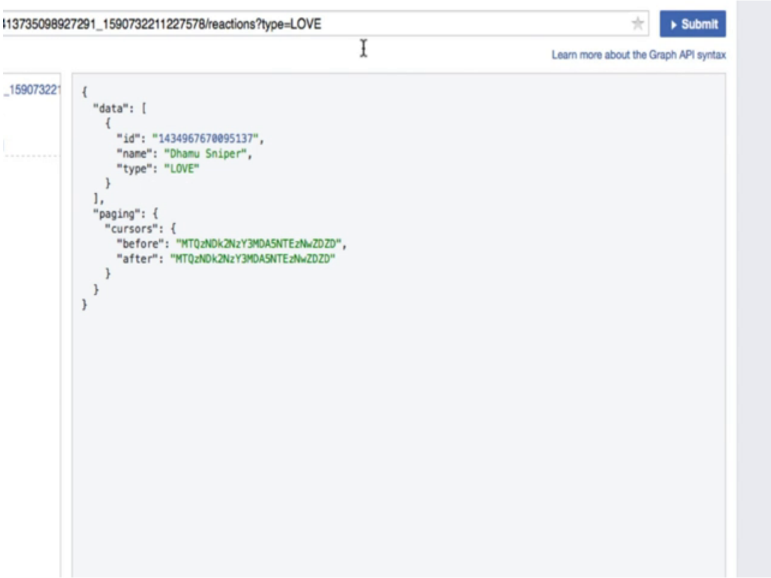


413735098927291_1590732211227578/reactions?type=love

```
{
  "error": {
    "message": "(#100) Param type must be one of {NONE, LIKE, LOVE, WOW, HAHA, SAD, ANGRY, THANKFUL}",
    "type": "OAuthException",
    "code": 100,
    "fbtrace_id": "GXX+ZdBZKT4"
  }
}
```

So, this looks to be case sensitive.

(Refer Slide Time: 17:51)

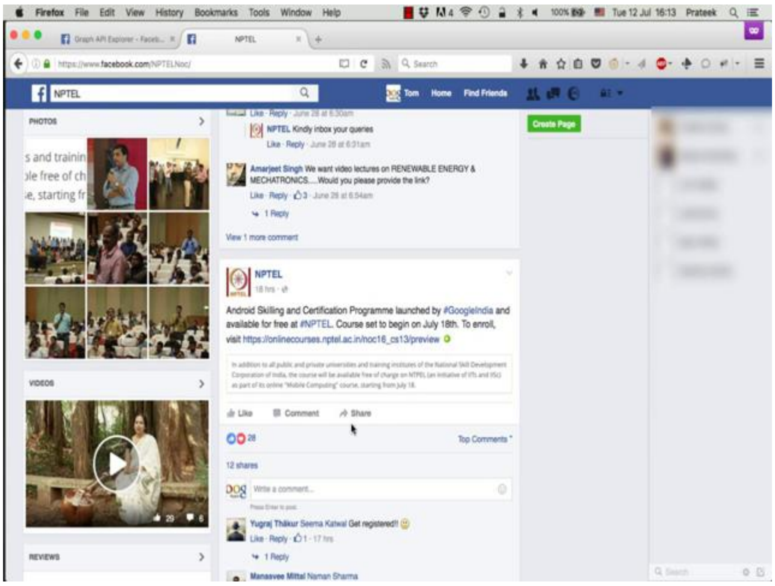


413735098927291_1590732211227578/reactions?type=LOVE

```
{
  "data": [
    {
      "id": "1434967670095137",
      "name": "Dhamu Sniper",
      "type": "LOVE"
    }
  ],
  "paging": {
    "cursors": {
      "before": "MTQzNDk2NzY3MDA5NTEzNwZDZD",
      "after": "MTQzNDk2NzY3MDA5NTEzNwZDZD"
    }
  }
}
```

So, we type L O V E in caps and there you see; the API gives you the one person who loved this post, the name of this user is Dhamu Sniper.

(Refer Slide Time: 18:03)



Like · Reply · June 28 at 6:30am

NPTEL Kindly inbox your queries
Like · Reply · June 28 at 6:31am

Amarjeet Singh We want video lectures on RENEWABLE ENERGY & MECHATRONICS.....Would you please provide the link?
Like · Reply · 3 · June 28 at 6:54am
1 Reply

View 1 more comment

NPTEL
18 hrs

Android Skilling and Certification Programme launched by #GoogleIndia and available for free at #NPTEL. Course set to begin on July 18th. To enroll, visit https://onlinecourses.nptel.ac.in/noc16_cs13/preview

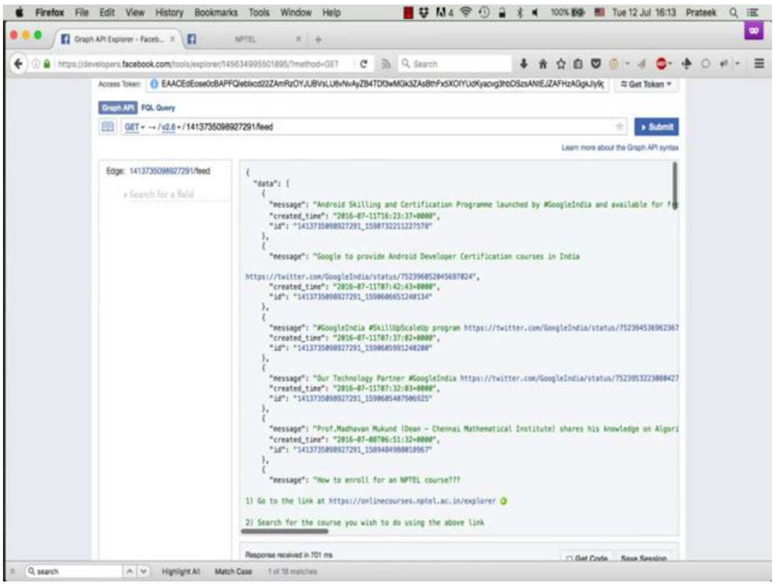
In addition to all public and private universities and training institutes of the National Skill Development Corporation of India, the course will be available free of charge on NPTEL (an initiative of IITs and IISc) as part of its online "Mobile Computing" course, starting from July 18.

Yugraj Thakur Seema Katwal Get registered!!
Like · Reply · 1 · 17 hrs
1 Reply

Manasvee Mittal Naman Sharma

You can go back to the post on the Facebook page and verify. So, this shows the same name here too.

(Refer Slide Time: 18:19)

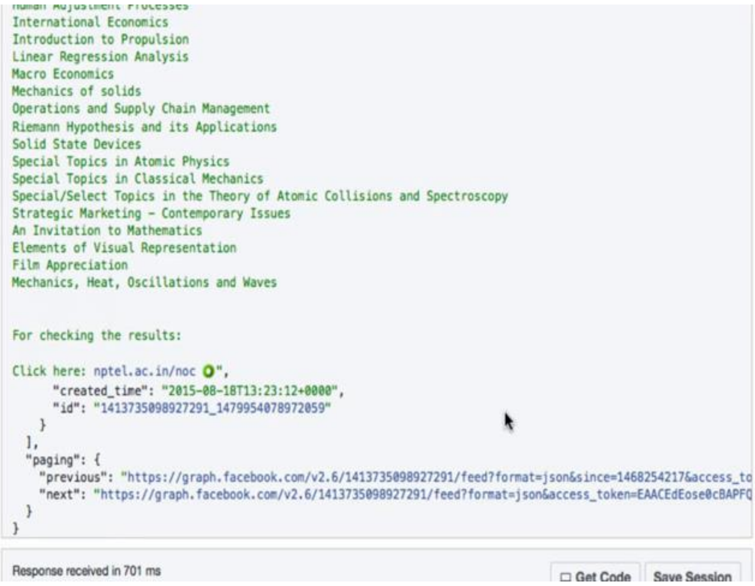


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 16:13 Prateek
Graph API Explorer - Faceb...
NPTEL
https://developers.facebook.com/tools/explorer/145634995501895/?method=GET
Search
Access Token: EAACEdEose0cBAPFQleblxcd22ZAmRzOYJUBVsLU6vNvAyZB4TD3wMGk3ZAsBthFx5XOIYUdKyacvg3hbDSzsANtEJZAFHzAGgkJly9k
Get Token
Graph API
FQL Query
GET → /v2.6 /1413735098927291/feed
Submit
Learn more about the Graph API syntax
Edge: 1413735098927291/feed
Search for a field
Response received in 701 ms
Get Code
Save Session
search
Highlight All
Match Case
1 of 18 matches

```
{
  "data": [
    {
      "message": "Android Skilling and Certification Programme launched by #GoogleIndia and available for f
      "created_time": "2016-07-11T16:23:37+0000",
      "id": "1413735098927291_1590732211227578"
    },
    {
      "message": "Google to provide Android Developer Certification courses in India

https://twitter.com/GoogleIndia/status/752396052045697024",
      "created_time": "2016-07-11T07:42:43+0000",
      "id": "1413735098927291_1590606651240134"
    },
    {
      "message": "#GoogleIndia #SkillUpScaleUp program https://twitter.com/GoogleIndia/status/752394536962367
      "created_time": "2016-07-11T07:37:02+0000",
      "id": "1413735098927291_1590605991240200"
    },
    {
      "message": "Our Technology Partner #GoogleIndia https://twitter.com/GoogleIndia/status/752395322380427
      "created_time": "2016-07-11T07:32:03+0000",
      "id": "1413735098927291_1590605407906925"
    },
    {
      "message": "Prof.Madhavan Mukund (Dean - Chennai Mathematical Institute) shares his knowledge on Algori
      "created_time": "2016-07-08T06:51:32+0000",
      "id": "1413735098927291_1589484908018967"
    },
    {
      "message": "How to enroll for an NPTEL course???

1) Go to the link at https://onlinecourses.nptel.ac.in/explorer

2) Search for the course you wish to do using the above link
```

Now, there is a concept of paging in the graph API, which we have not looked at. So, whenever you make a query to the API, where the number of results is more than 25, the API returns the response in multiple pages.

(Refer Slide Time: 18:27)



```
Human Adjustment Processes
International Economics
Introduction to Propulsion
Linear Regression Analysis
Macro Economics
Mechanics of solids
Operations and Supply Chain Management
Riemann Hypothesis and its Applications
Solid State Devices
Special Topics in Atomic Physics
Special Topics in Classical Mechanics
Special/Select Topics in the Theory of Atomic Collisions and Spectroscopy
Strategic Marketing - Contemporary Issues
An Invitation to Mathematics
Elements of Visual Representation
Film Appreciation
Mechanics, Heat, Oscillations and Waves


For checking the results:

Click here: nptel.ac.in/noc ",
      "created_time": "2015-08-18T13:23:12+0000",
      "id": "1413735098927291_1479954078972059"
    }
  ],
  "paging": {
    "previous": "https://graph.facebook.com/v2.6/1413735098927291/feed?format=json&since=1468254217&access_to
    "next": "https://graph.facebook.com/v2.6/1413735098927291/feed?format=json&access_token=EAACEdEose0cBAPFQ
  }
}
```

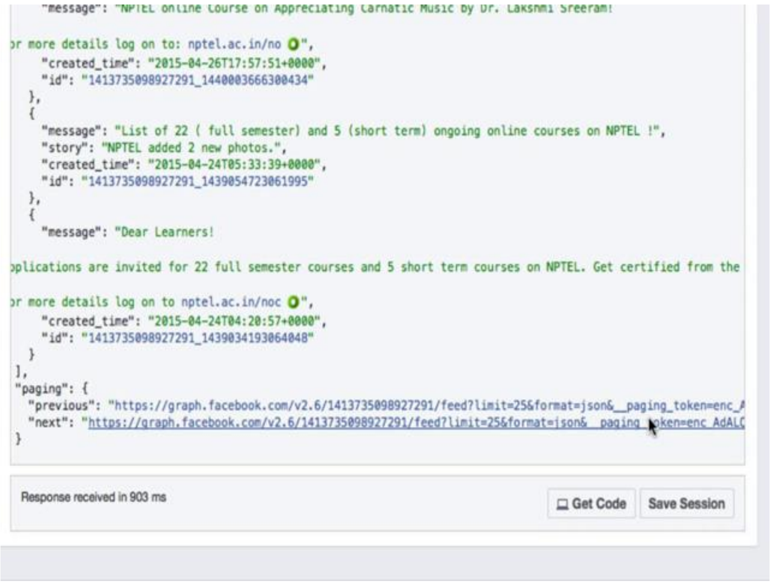
If you scroll down to the very bottom of the results, you can see this paging object in the response which contains URLs to the previous and next set of results.

(Refer Slide Time: 18:37)

&limit=25&u

And if you look at this URL carefully, you will find a limit parameter which is set to 25 by default. Now when you click on this URL you get the next 25 results, which is a next 25 posts on the NPTEL page in this case.

(Refer Slide Time: 18:55)

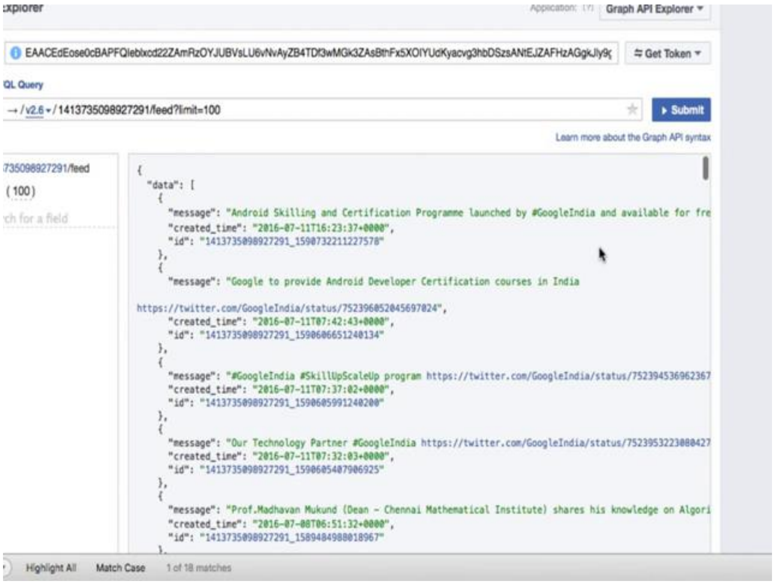


```
    "message": "NPTEL online Course on Appreciating Carnatic Music by Dr. Lakshmi Sreeram!

or more details log on to: nptel.ac.in/no ●",
    "created_time": "2015-04-26T17:57:51+0000",
    "id": "1413735098927291_1440003666300434"
  },
  {
    "message": "List of 22 ( full semester) and 5 (short term) ongoing online courses on NPTEL !",
    "story": "NPTEL added 2 new photos.",
    "created_time": "2015-04-24T05:33:39+0000",
    "id": "1413735098927291_1439054723061995"
  },
  {
    "message": "Dear Learners!

pplications are invited for 22 full semester courses and 5 short term courses on NPTEL. Get certified from the

or more details log on to nptel.ac.in/noc ●",
    "created_time": "2015-04-24T04:20:57+0000",
    "id": "1413735098927291_1439034193064048"
  }
 ],
 "paging": {
  "previous": "https://graph.facebook.com/v2.6/1413735098927291/feed?limit=25&format=json&__paging_token=enc_A
  "next": "https://graph.facebook.com/v2.6/1413735098927291/feed?limit=25&format=json&__paging_token=enc_AdALC
 }
```

Response received in 903 ms

Scroll down to the bottom again and there is this next again. This URL keeps getting updated at every page and keeps on showing up again and again until all the results have been obtained. If you want to get more number of results in a single query, you can change this limit parameter manually. So, let us change this parameter to 100 and click submit.

(Refer Slide Time: 19:10)

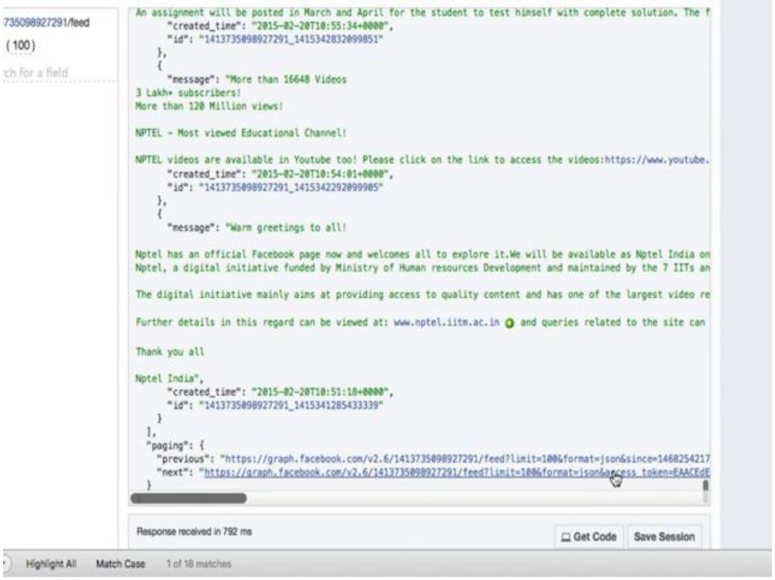


→ / v2.6 ▾ / 1413735098927291/feed?limit=100

```
{
  "data": [
    {
      "message": "Android Skilling and Certification Programme launched by #GoogleIndia and available for fre
      "created_time": "2016-07-11T16:23:37+0000",
      "id": "1413735098927291_1590732211227578"
    },
    {
      "message": "Google to provide Android Developer Certification courses in India

https://twitter.com/GoogleIndia/status/752396052045697024",
      "created_time": "2016-07-11T07:42:43+0000",
      "id": "1413735098927291_1590606651240134"
    },
    {
      "message": "#GoogleIndia #SkillUpScaleUp program https://twitter.com/GoogleIndia/status/752394536962367
      "created_time": "2016-07-11T07:37:02+0000",
      "id": "1413735098927291_1590605991240200"
    },
    {
      "message": "Our Technology Partner #GoogleIndia https://twitter.com/GoogleIndia/status/7523953223080427
      "created_time": "2016-07-11T07:32:03+0000",
      "id": "1413735098927291_1590605407906925"
    },
    {
      "message": "Prof.Madhavan Mukund (Dean - Chennai Mathematical Institute) shares his knowledge on Algori
      "created_time": "2016-07-08T06:51:32+0000",
      "id": "1413735098927291_1589484988018967"
    },
```

Now, if you scroll down you would notice that the number of results have increased a lot.

(Refer Slide Time: 19:22)

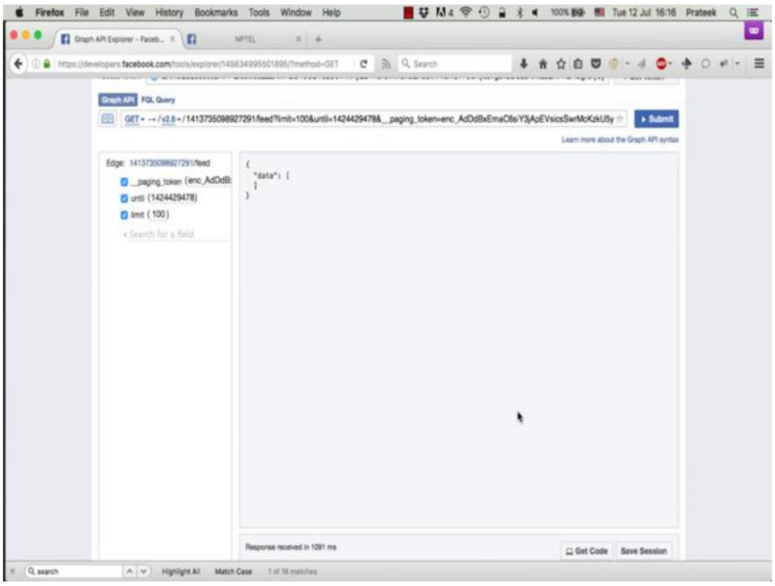


```
An assignment will be posted in March and April for the student to test himself with complete solution. The f
      "created_time": "2015-02-20T10:55:34+0000",
      "id": "1413735098927291_1415342832099851"
    },
    {
      "message": "More than 16648 Videos
3 Lakh+ subscribers!
More than 120 Million views!

NPTEL - Most viewed Educational Channel!

NPTEL videos are available in Youtube too! Please click on the link to access the videos:https://www.youtube.
      "created_time": "2015-02-20T10:54:01+0000",
      "id": "1413735098927291_1415342292099905"
    },
    {
      "message": "Warm greetings to all!

Nptel has an official Facebook page now and welcomes all to explore it.We will be available as Nptel India on
Nptel, a digital initiative funded by Ministry of Human resources Development and maintained by the 7 IITs an

The digital initiative mainly aims at providing access to quality content and has one of the largest video re

Further details in this regard can be viewed at: www.nptel.iitm.ac.in ● and queries related to the site can

Thank you all

Nptel India",
      "created_time": "2015-02-20T10:51:18+0000",
      "id": "1413735098927291_1415341285433339"
    }
  ],
  "paging": {
    "previous": "https://graph.facebook.com/v2.6/1413735098927291/feed?limit=100&format=json&since=1468254217
    "next": "https://graph.facebook.com/v2.6/1413735098927291/feed?limit=100&format=json&access_token=EAACEdE
  }
```

Response received in 792 ms

Let us scroll down to the bottom. So, there is a next again.

(Refer Slide Time: 19:26)



GET → /v2.6 /1413735098927291/feed?limit=100&until=1424429478&__paging_token=enc_AdDdBxEmaC8siY3jApEVsicsSwMcKzkU5y

Edge: 1413735098927291/feed

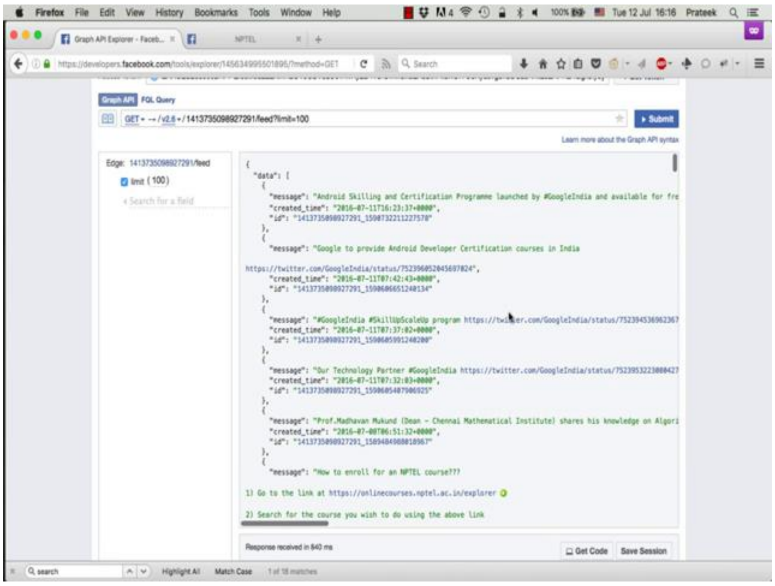
☑ __paging_token (enc_AdDdB
☑ until (1424429478)
☑ limit (100)

```
{
  "data": [
  ]
}
```

Response received in 1091 ms

But when you click on it you see that there are no more results left the next page is blank. So, now, you know that the total number of posts in the NPTEL pages feed is 100 or less. If they were more they would have shown up in this next page.

(Refer Slide Time: 19:39)



GET → /v2.6 /1413735098927291/feed?limit=100

Edge: 1413735098927291/feed

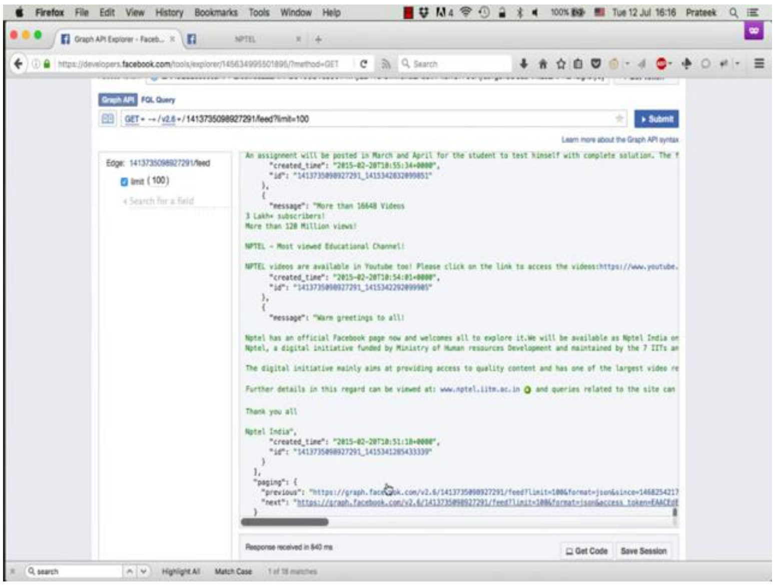
☑ limit (100)

```
{
  "data": [
    {
      "message": "Android Skilling and Certification Programme launched by #GoogleIndia and available for fre
      "created_time": "2016-07-11T16:23:37+0000",
      "id": "1413735098927291_1590732211227570"
    },
    {
      "message": "Google to provide Android Developer Certification courses in India

https://twitter.com/GoogleIndia/status/752396052045697024",
      "created_time": "2016-07-11T07:42:43+0000",
      "id": "1413735098927291_1590606651240134"
    },
    {
      "message": "#GoogleIndia #SkillUpScaleUp program https://twitter.com/GoogleIndia/status/75239453696236?
      "created_time": "2016-07-11T07:37:02+0000",
      "id": "1413735098927291_1590605991240200"
    },
    {
      "message": "Our Technology Partner #GoogleIndia https://twitter.com/GoogleIndia/status/752395322300042?
      "created_time": "2016-07-11T07:32:03+0000",
      "id": "1413735098927291_1590605407906925"
    },
    {
      "message": "Prof.Madhavan Mukund (Dean - Chennai Mathematical Institute) shares his knowledge on Algori
      "created_time": "2016-07-08T06:51:32+0000",
      "id": "1413735098927291_1589484908018967"
    },
    {
      "message": "How to enroll for an NPTEL course???

1) Go to the link at https://onlinecourses.nptel.ac.in/explorer

2) Search for the course you wish to do using the above link
```

Response received in 643 ms

So, let us try to see exactly how many posts are there. The easiest way to do this is to copy this entire response and put it in the json viewer tool that we saw a few minutes ago.

(Refer Slide Time: 19:45)


Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 16:16 Prateek
Graph API Explorer - Faceb...
NPTEL
https://developers.facebook.com/tools/explorer/145634995501895/?method=GET
Search
Graph API
FQL Query
GET
v2.6
Submit
Learn more about the Graph API syntax
Search for a field
Get Code
Save Session
search
Highlight All
Match Case
1 of 18 matches

GET → /v2.6 /1413735098927291/feed?limit=100

Edge: 1413735098927291/feed

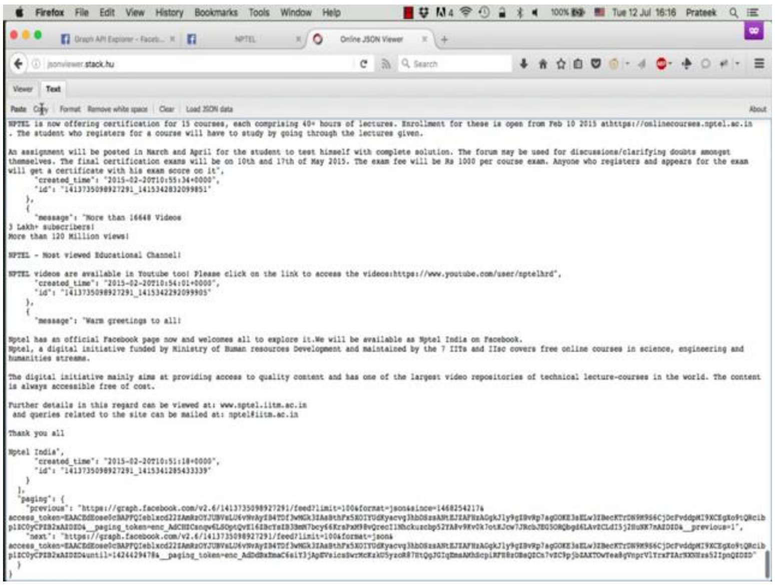
☑ limit (100)

```
An assignment will be posted in March and April for the student to test himself with complete solution. The f
      "created_time": "2015-02-20T10:55:34+0000",
      "id": "1413735098927291_1415342832099851"
    },
    {
      "message": "More than 16648 Videos
3 Lakh+ subscribers!
More than 120 Million views!

NPTEL - Most viewed Educational Channel!

NPTEL videos are available in Youtube too! Please click on the link to access the videos:https://www.youtube.
      "created_time": "2015-02-20T10:54:01+0000",
      "id": "1413735098927291_1415342292099905"
    },
    {
      "message": "Warm greetings to all!

Nptel has an official Facebook page now and welcomes all to explore it.We will be available as Nptel India on
Nptel, a digital initiative funded by Ministry of Human resources Development and maintained by the 7 IITs an

The digital initiative mainly aims at providing access to quality content and has one of the largest video re

Further details in this regard can be viewed at: www.nptel.iitm.ac.in  and queries related to the site can

Thank you all

Nptel India",
      "created_time": "2015-02-20T10:51:18+0000",
      "id": "1413735098927291_1415341285433339"
    }
  ],
  "paging": {
    "previous": "https://graph.facebook.com/v2.6/1413735098927291/feed?limit=100&format=json&since=146825421?
    "next": "https://graph.facebook.com/v2.6/1413735098927291/feed?limit=100&format=json&access_token=EAACEdE
  }
```

Response received in 840 ms

So, you select this entire response.

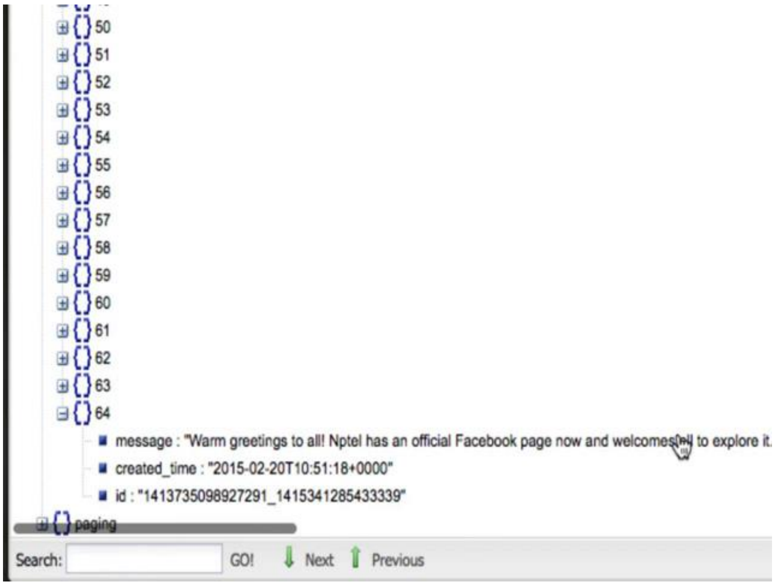
(Refer Slide Time: 20:12)



```
NPTEL is now offering certification for 15 courses, each comprising 40+ hours of lectures. Enrollment for these is open from Feb 10 2015 athttps://onlinecourses.nptel.ac.in
. The student who registers for a course will have to study by going through the lectures given.

An assignment will be posted in March and April for the student to test himself with complete solution. The forum may be used for discussions/clarifying doubts amongst
themselves. The final certification exams will be on 10th and 17th of May 2015. The exam fee will be Rs 1000 per course exam. Anyone who registers and appears for the exam
will get a certificate with his exam score on it",
      "created_time": "2015-02-20T10:55:34+0000",
      "id": "1413735098927291_1415342832099851"
    },
    {
      "message": "More than 16648 Videos
3 Lakh+ subscribers!
More than 120 Million views!

NPTEL - Most viewed Educational Channel!

NPTEL videos are available in Youtube too! Please click on the link to access the videos:https://www.youtube.com/user/nptelhrd",
      "created_time": "2015-02-20T10:54:01+0000",
      "id": "1413735098927291_1415342292099905"
    },
    {
      "message": "Warm greetings to all!

Nptel has an official Facebook page now and welcomes all to explore it.We will be available as Nptel India on Facebook.
Nptel, a digital initiative funded by Ministry of Human resources Development and maintained by the 7 IITs and IIsc covers free online courses in science, engineering and
humanities streams.

The digital initiative mainly aims at providing access to quality content and has one of the largest video repositories of technical lecture-courses in the world. The content
is always accessible free of cost.

Further details in this regard can be viewed at: www.nptel.iitm.ac.in
 and queries related to the site can be mailed at: nptel@iitm.ac.in

Thank you all

Nptel India",
      "created_time": "2015-02-20T10:51:18+0000",
      "id": "1413735098927291_1415341285433339"
    }
  ],
  "paging": {
    "previous": "https://graph.facebook.com/v2.6/1413735098927291/feed?limit=100&format=json&since=1468254217&
access_token=[illegible]
[illegible]__paging_token=enc_[illegible]__previous=1",
    "next": "https://graph.facebook.com/v2.6/1413735098927291/feed?limit=100&format=json&
access_token=[illegible]
[illegible]&until=1424429478&__paging_token=enc_[illegible]"
  }
}
```

Copy and paste it in this json viewer. Go to the viewer tab.

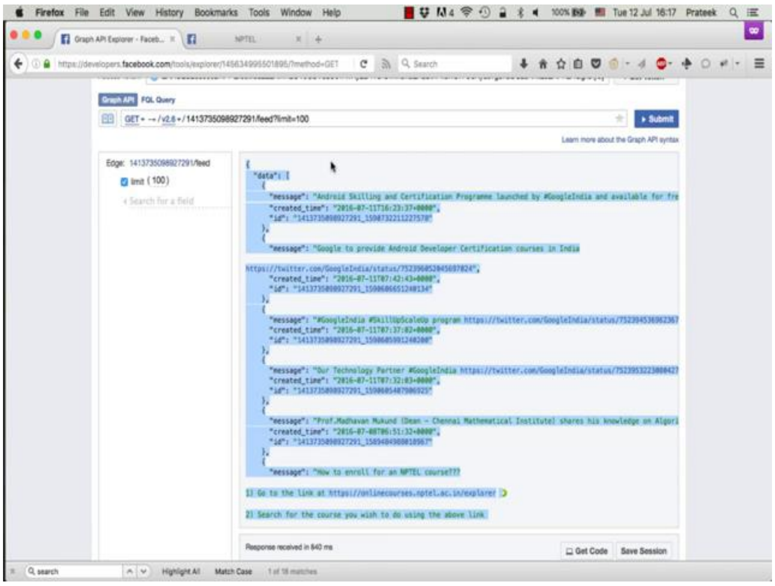
(Refer Slide Time: 20:15)



```
{ } 50
{ } 51
{ } 52
{ } 53
{ } 54
{ } 55
{ } 56
{ } 57
{ } 58
{ } 59
{ } 60
{ } 61
{ } 62
{ } 63
{ } 64
    message : "Warm greetings to all! Nptel has an official Facebook page now and welcomes[...] to explore it.
    created_time : "2015-02-20T10:51:18+0000"
    id : "1413735098927291_1415341285433339"
{ } paging
```

Now expand this data object. So, it starts from 0 and goes until 64 meaning that there are total 65 public posts made by this page. Remember that the API only returns public data. So, if the page did a post where the privacy setting was not public, it will not show up in the results. So, if you expand the last post object, this was the first ever public post made by this page which was on February 28th 2015, saying warm greetings NPTEL has an official Facebook page etcetera.

(Refer Slide Time: 20:49)



Firefox File Edit View History Bookmarks Tools Window Help
Tue 12 Jul 16:17 Prateek
Graph API Explorer - Faceb...
NPTEL
Graph API
FQL Query
Submit
Learn more about the Graph API syntax
Get Code
Save Session
Highlight All
Match Case
1 of 18 matches

https://developers.facebook.com/tools/explorer/145634995501895/?method=GET

GET → /v2.6 /1413735098927291/feed?limit=100

Edge: 1413735098927291/feed

☑ limit (100)

Search for a field

```
{
  "data": [
    {
      "message": "Android Skilling and Certification Programme launched by #GoogleIndia and available for fre
      "created_time": "2016-07-11T16:23:37+0000",
      "id": "1413735098927291_1508732211227578"
    },
    {
      "message": "Google to provide Android Developer Certification courses in India

https://twitter.com/GoogleIndia/status/752396052045697024",
      "created_time": "2016-07-11T07:42:43+0000",
      "id": "1413735098927291_1508606651240134"
    },
    {
      "message": "#GoogleIndia #SkillUpScaleUp program https://twitter.com/GoogleIndia/status/75239453698236
      "created_time": "2016-07-11T07:37:02+0000",
      "id": "1413735098927291_1508605991240200"
    },
    {
      "message": "Our Technology Partner #GoogleIndia https://twitter.com/GoogleIndia/status/75239532230004
      "created_time": "2016-07-11T07:32:03+0000",
      "id": "1413735098927291_1508605407906925"
    },
    {
      "message": "Prof.Madhavan Mukund (Dean - Chennai Mathematical Institute) shares his knowledge on Algori
      "created_time": "2016-07-08T06:51:32+0000",
      "id": "1413735098927291_1589484908018967"
    },
    {
      "message": "How to enroll for an NPTEL course???

1) Go to the link at https://onlinecourses.nptel.ac.in/explorer

2) Search for the course you wish to do using the above link
```

Response received in 840 ms

But we saw earlier that this page is not a verified page. So, there is no way to really confirm that this is truly the genuine actual NPTEL page created and owned by NPTEL. So, until, now we have seen some basics of the graph API. We have explored some basic queries that you can make in the API; the format of the responses that the API returns etcetera.

In the next video, we will learn to do some more advanced operations with the API like creating an app, extending access tokens, collecting data programmatically using python etcetera.