

Basic Commands of Git

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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18 May 2015



Learning Objectives

In this tutorial, we will learn about



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In this tutorial, we will learn about

- ▶ **Git Repository**



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In this tutorial, we will learn about

- ▶ **Git Repository**
- ▶ **Some basic commands of Git**



System Requirements

For this tutorial, I am using



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- ▶ **Ubuntu Linux 14.04 OS**



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- ▶ **Ubuntu Linux 14.04 OS**
- ▶ **Git 2.3.2**



System Requirements

For this tutorial, I am using

- ▶ **Ubuntu Linux 14.04 OS**
- ▶ **Git 2.3.2**
- ▶ **gedit Text Editor**



Prerequisites



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- ▶ You should have knowledge of running **Linux** commands on the **Terminal**



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- ▶ You should have knowledge of running **Linux** commands on the **Terminal**
- ▶ If not, for relevant **Linux** tutorials please visit www.spoken-tutorial.org



Git Repository



Git Repository

- ▶ **Git repository is a folder where all the data of our project will be stored**



Git Repository

- ▶ **Git repository is a folder where all the data of our project will be stored**
- ▶ **It can be located on the local machine or on a remote machine**



Git Repository (Continued)

Difference between normal folder and Git repository



Git Repository (Continued)

Difference between normal folder and Git repository

- ▶ Normal folder contains only files and directories



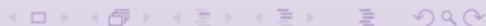
Git Repository (Continued)

Difference between normal folder and Git repository

- ▶ Normal folder contains only files and directories
- ▶ Git repository contains files and directories along with their complete history



--global flag



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- ▶ **Multiple repositories can be created in a single machine**



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- ▶ Multiple repositories can be created in a single machine
- ▶ If you use the **--global** flag, the setting will be applied to all the repositories of the machine



--global flag

- ▶ Multiple repositories can be created in a single machine
- ▶ If you use the **--global** flag, the setting will be applied to all the repositories of the machine
- ▶ If you want this identity only for this repository, then do not use **--global** flag



Demonstration

- ▶ I will be using **html** files for demonstration



Demonstration

- ▶ I will be using **html** files for demonstration
- ▶ You can use any file type of your choice



Demonstration

- ▶ I will be using **html** files for demonstration
- ▶ You can use any file type of your choice
- ▶ For eg: text files or doc files



Staging area

- ▶ **Staging area is a file that stores information of the changes that need to be committed**



Staging area

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- ▶ **The file contents should be added to the staging area, before committing them**



Staging area

- ▶ **Staging area is a file that stores information of the changes that need to be committed**
- ▶ **The file contents should be added to the staging area, before committing them**
- ▶ **Older git versions used the term *index* instead of *staging area***



What is commit?

- ▶ **When we attain a particular stage, we can save our work in the repository**



What is commit?

- ▶ When we attain a particular stage, we can save our work in the repository
- ▶ This is called **commit**



What is commit?

- ▶ When we attain a particular stage, we can save our work in the repository
- ▶ This is called **commit**
- ▶ Each commit is saved with the information of username, email-id, date, time and commit message



SHA-1 hash



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- ▶ It is a unique id of 40 alpha-numeric characters



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- ▶ Git stores all the information in its database by the hash value
- ▶ Git commits are identified by the SHA-1 hash



Summary

- ▶ **Git Repository**
- ▶ **Some basic commands of Git**



Assignment

- ▶ Create a directory in your machine and make it as a repository
- ▶ Create a text file and add content into it
- ▶ Add the file to the staging area of the Git repository
- ▶ Commit the file and
- ▶ See the commit details using **git log** command



Acknowledgement

- ▶ Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



Acknowledgements

- ▶ **Spoken Tutorial Project is a part of the Talk to a Teacher project**
- ▶ **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- ▶ **More information on this Mission is available at:**

<http://spoken-tutorial.org/NMEICT-Intro>

