

LOOPS AND CONDITIONALS: FIZZBUZZ 02

Hey amith! Yes sir. You have some time? Sure sir. Please sit, i stopped you because you look a little worried and you looked a little engrossed in some thought. That's what are you thinking? Yes sir exactly. So i was ready to write a code for a puzzle game i don't know whether you have heard about it or heard of it or not, its very famous puzzle i know not very difficult one but when you try to write a code of it then you get stuck somewhere correct, and it's not only me i tried to Google it and i found that many actually more than eighty percent of the people get stuck there and its very surprising that how it is happening? And why we all of them are getting stuck at that point only? Correct. So you are discourage thinking that probably your programming skills are poor, exactly yeah. Because of which so have you become programming all this while? Yeah yeah i think i am a good programmer. But this particular thing as a bouncer coming that's what you are saying, yeah ok so i also personally feel that fizzbuzz is slightly hyped on the internet, so historically speaking there is some story behind fizzbuzz i am sure you know of it if not i will just brief you with it. It is believe that a whole lot of programmer so who claimed that who are good programmers cannot even write a simple code ok? Ok the simple code in codes a good candidate example for a simple codes is this fizzbuzz as you know you describe it right? It's some multiple of three and five that you want to display in a particular way and like that right? Exactly. Let me illustrate what exactly is the problem. Do u know of any tongue twister? Yeah when i was kid i use to know some. Can you tell me some tongue twister of your choice? My friend once told me so i will try. Bity bought some butter, but the butter was better so he bought more butter to make the bitter butter better, that's not the exactly the tongue twister good that you made a mistake, i wanted you to make a mistake, is it impossible for you to get this tongue twister some amount of practice required yeah but without practice its plane impossible for you to get this right? True true. I will give you one another tongue twister. Ok. She sells sea shells in the sea shore we have been narrating this from ages like; can you try do narrating this? Can you repeat it one more time? She sells sea shells in the sea shore she sells sea shells in the sea shore yeah yeah exactly its difficult the point here is that there are certain things that comes by practice certain things that they are very difficult to do it on the first time right? a simple sentence like as good as it gets say that as good as it gets see that's easy, certain things are easy certain things are difficult i some of this in the fizzbuzz is very hyped a programming example and its of discourages people thinking that they are not very good programmers yeah right? with practice i am sure you can do a super fizzbuzz programme too according to me super fizzbuzz you give as input some bunch of numbers and you should display which numbers which multiples to display and which multiples not to display right? Like a variant of visible right? so i think we should not take these things very seriously all that matters here is enormous amount of practice, you keep practicing i am sure fizzbuzz is just a very bad candidate example anything for that matter will be a kick off go ok? so my call for all programmers learning especially in our course is that there are going to be questions that are not going to be straight forward that you will find it difficult to code that's to be perfectly fine with a few attempts you will be able to do it, my sincere request for you all is not to switch on the timer

then coding right? Fizzbuzz is probably difficult for you but given one hours time do you think you will not be able to solve it, so programming should not be timed according to me. Forget all the competitive programming challenges. Programming according to me is an art it should be treated like an art at least up to the point but you reach that and say you are an expert and then you try competitive programming but until the point you master programming i think you should be slow, you should be deficient and you should not time your programming. So do this experiment take an innocent programmer who doesn't know a whole lot of programming but he is newly introduced to programming some students from let say from job course and gave them good amount of time and motivate him tell him about this fizzbuzz and i am sure he can solve it. Ok in last videos we saw that the programme we wrote a programme but we think that logic is correct but still we are not getting the desired output so we will see out what's problem in the so you can see here in fifteen i am getting fizz i should get fizzbuzz but i am not getting the fizzbuzz and according to me the logic is correct still i am getting fizz only, i should get fizzbuzz. Actually the problem is that what we are doing is whenever a number is coming first we are trying to find whether that number is multiple of three then if it is not multiple of three then we are checking whether it is a multiple of five and if it is not both the multiple of three and five if it is not multiple of five then we are checking that multiple of three and five then we are showing fizzbuzz now see let me debug this let me go through all the numbers suppose if i am getting number three it will get a three mod three is zero it means that three is divisible by three i will get a fizz. For six also will show me six mod three is zero six is divisible by three if ten comes then ten is not divisible by three and ten mod three is not zero remainder is not zero then it will go to the next condition else ten mod five is zero hence it will print buzz perfect for twelve if twelve comes twelve mod three is zero ok fine it will show fizz let say fifteen when fifteen comes the first condition is $i \bmod 15$ is equal to zero which means fifteen mod three is equal to zero yes fifteen mod three is zero so it will just print fizz and get out of the element that's the problem hence the first the problem is first condition is $i \bmod 3$ its only checking for three divisibility but we have to check for both three and five if it is divisible by three and five both then you should print fizzbuzz and then only you check for three and five hence i will change the conditions here let me re write the code ok so i will write here if $i \bmod 3$ is equal to zero and i will check for both $i \bmod 5$ is equal to zero and print i plus equal to fizzbuzz else if it is not divisible by both then i will check if it is divisible by three if $i \bmod 3$ is equal to zero then i will print let me copy this print fizz else if it is divisible by five then print buzz else it means that it is not divisible by three and five just print ok it is always good to write a function for whatever programme you are writing here i just wrote the logic by code here but it is better if i define a function and then call that function i just into function fizzbuzz in here i will give the range value let's say python don't take care of the indentation code is huge and you will find difficulties while printing that's why we are using spyder indentation where it automatically it if you are using some other difficult for you guys to do the indentation or you can use the sub line text also but we recommend you to use spyder this is ok i can call this function from the terminal i will just run this i will call the function fizzbuzz and the range i will use this r here again run this we will call the function fizzbuzz and the range let's check one two fizz four buzz fizz nine is fizz twelve is buzz fifteen is fizzbuzz eighteen is fizz twenty is buzz ok you can even write the function you can even call

the function here that contains fizzbuzz and you can give fifty one and i will run this cool so we are done with the fizzbuzz programme you can even modify this programme you can create your own game something like that you can change the numbers in a conventional fizzbuzz game we use three and five you can use some other numbers some other prime numbers ok we strongly recommend you guys to play with ait and if you are getting some new question regarding fizzbuzz and new ideas also please discuss on the discussion form ok it will help other guys also it will create more new ideas for us and for you guys ok we will meet again good luck all the best.