IIT Madras

ONLINE DEGREE

Programming in Python
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More on Replit, print and Common Mistakes

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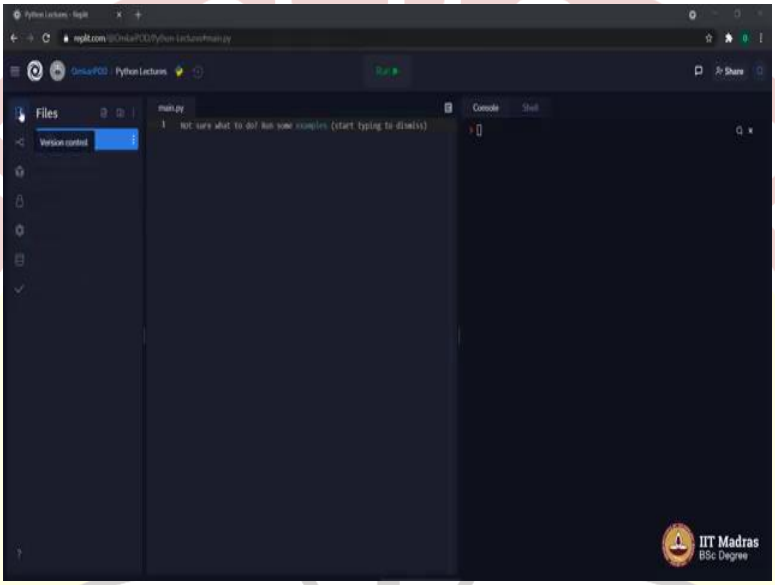

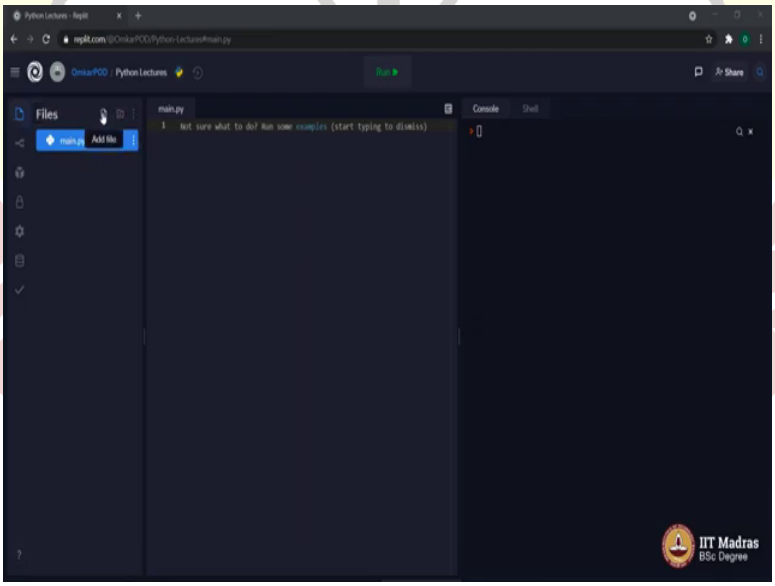

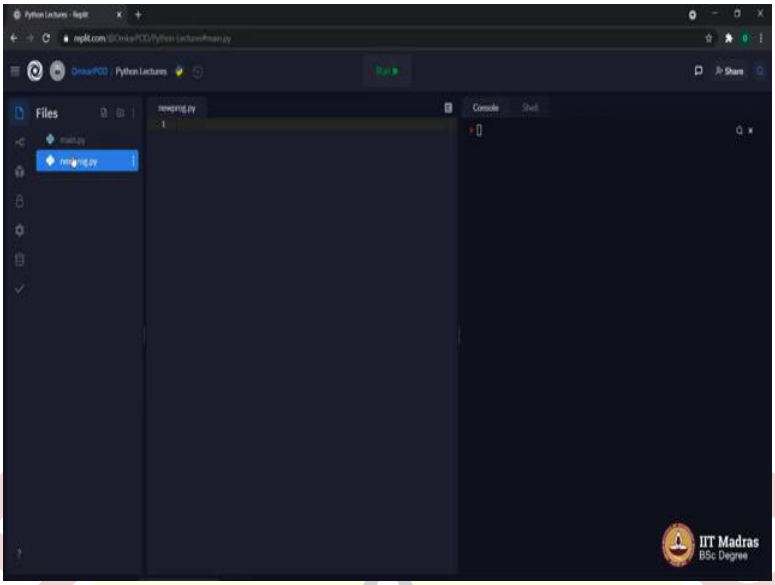

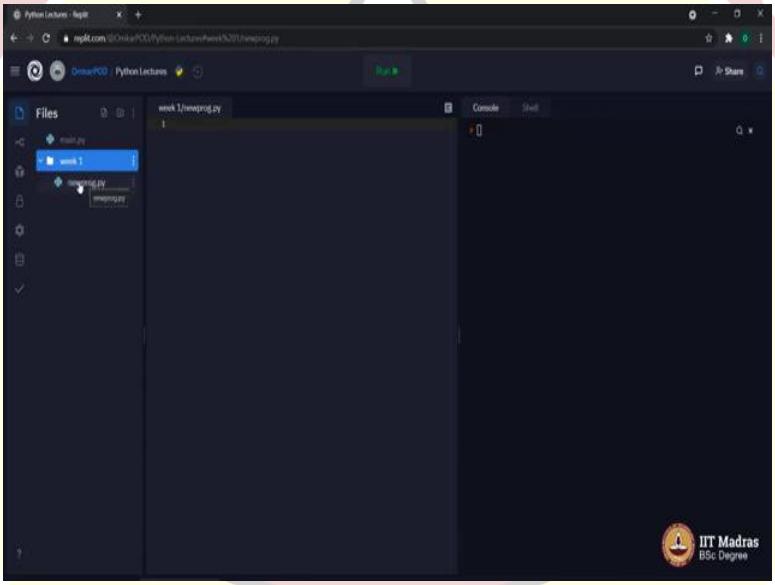

Hello Python students. In this lecture we will see some more features of Replit and print command. Also we will see some common mistakes one may do while writing a Python program. Let us start with the different features of Replit. If you observe the left side panel, you will see various icons available over here. Each icon represent a different feature of Replit. Let us first focus on this first icon, which is ‘files’.

Inside ‘files’ you can see there are two different options at the top called ‘add file’ and ‘add folder’. These two options will allow you to manage your programs in more systematic way. For example, we can add a new file. Let us name it ‘new program dot py’. You can always go back to the previous file or you can write in your newly created file. Similarly, we can also create one folder. Let us call it week 1.

Also we can organize these files by simply dragging them inside week 1 folder. So, inside week 1, we have ‘new program dot py’ as you can see over here at the top. Similarly, we can keep adding such files in a folder or outside the folder. This particular feature of Replit allows us to create multiple programs and organize them in a systematic manner.

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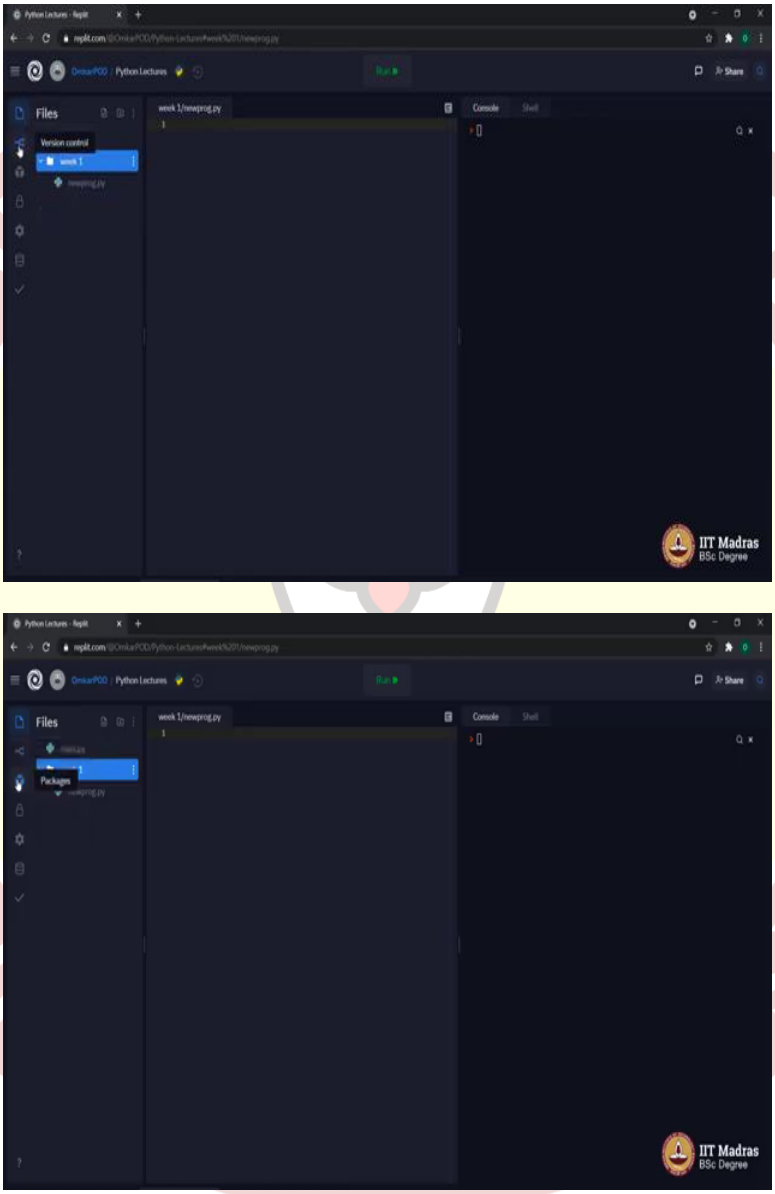

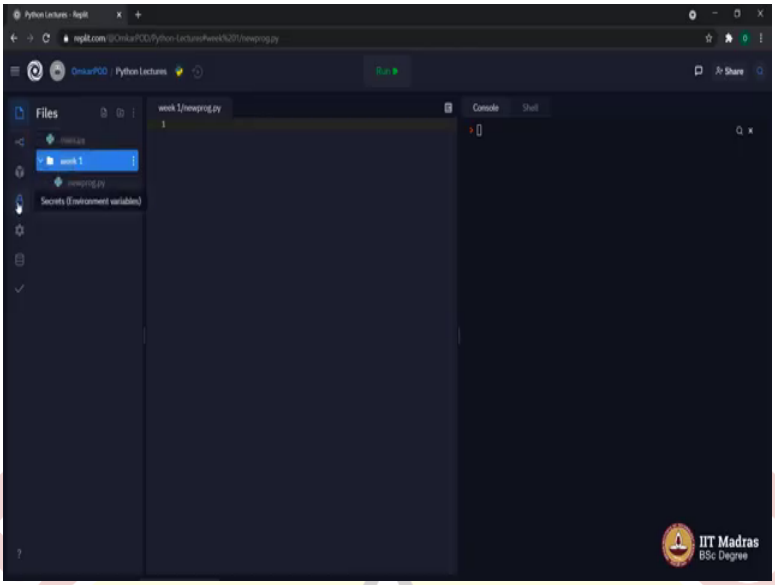
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Secrets (Environment variables)
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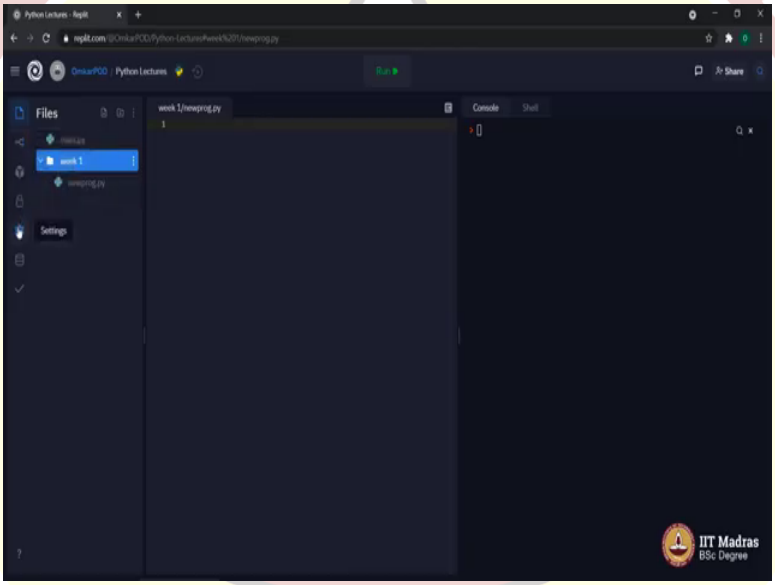
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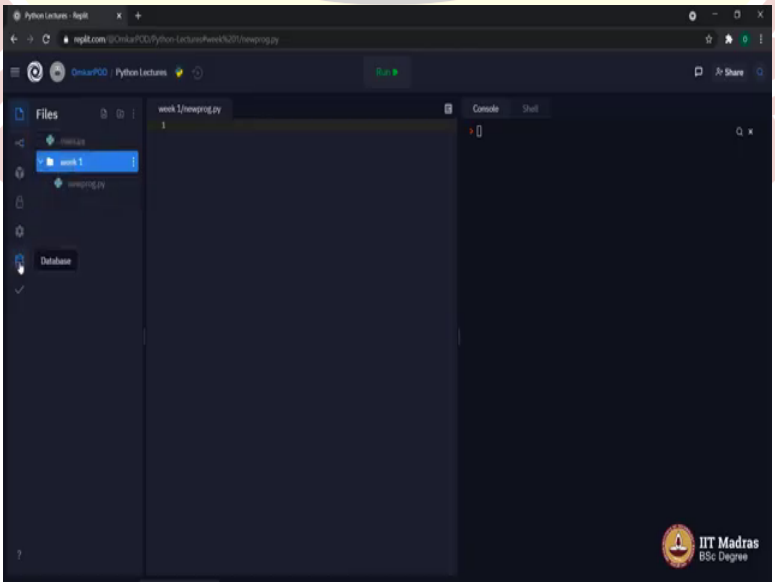
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Database
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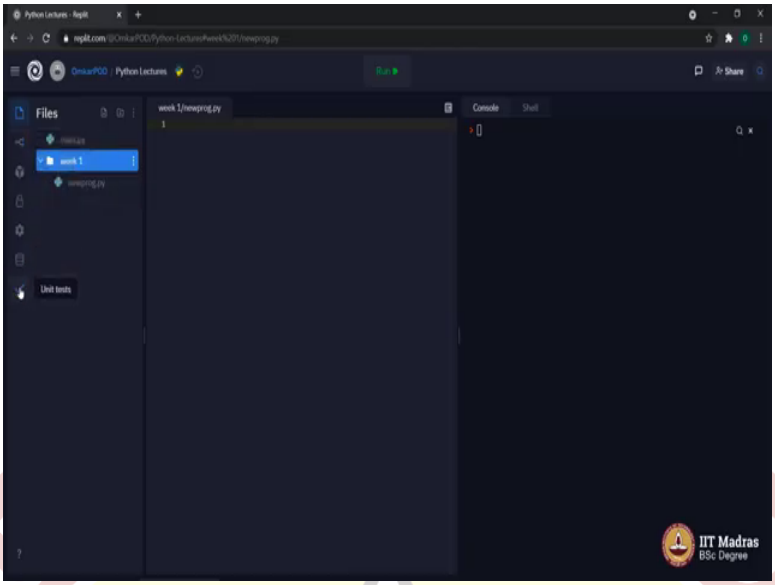

Next it has many features like version control, packages, home secrets, settings, databases, unit tests. But for now we will explore only one part of it, which is 'settings'.

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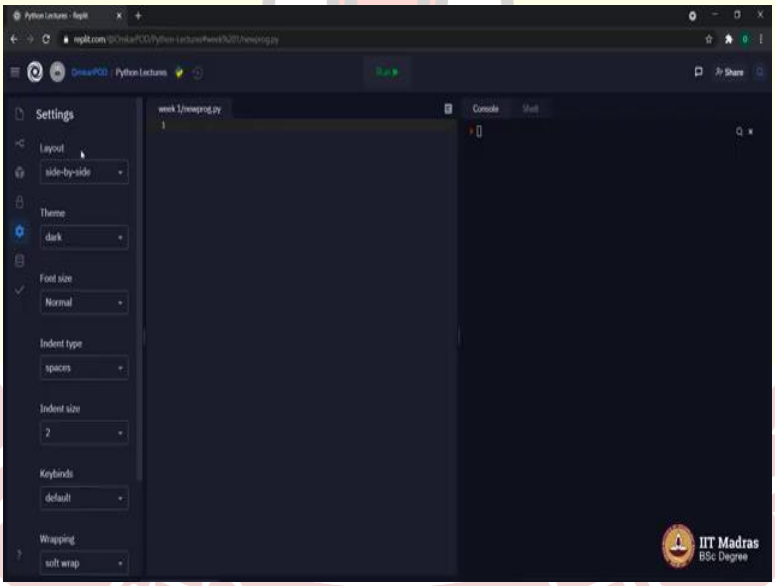

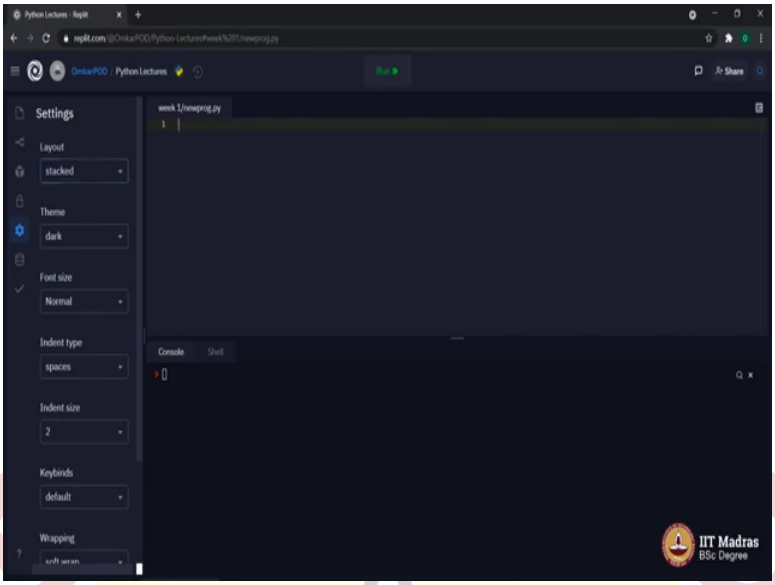
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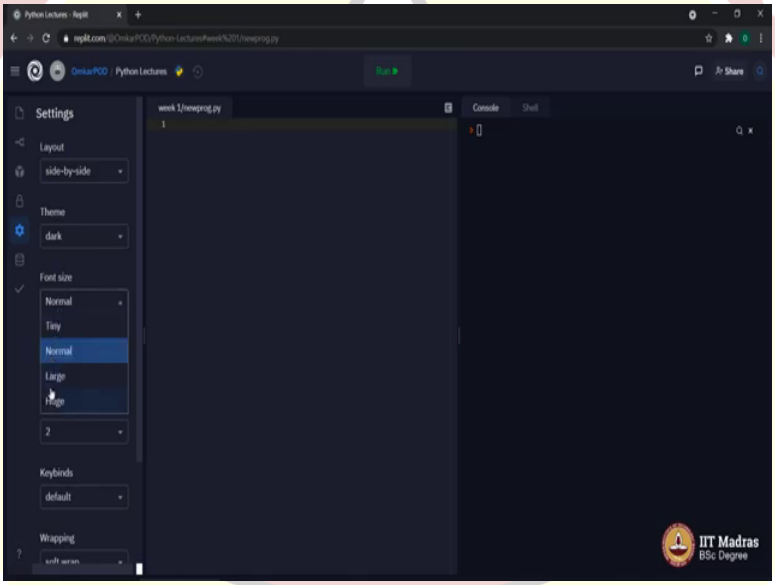
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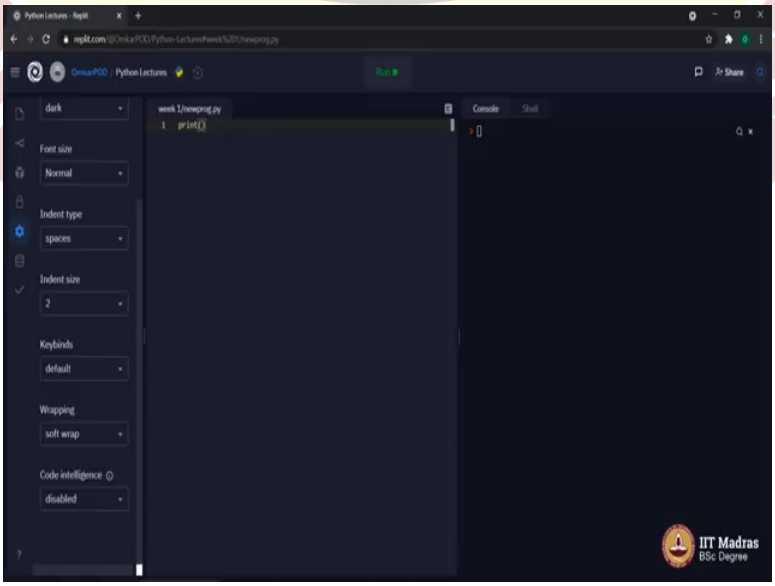
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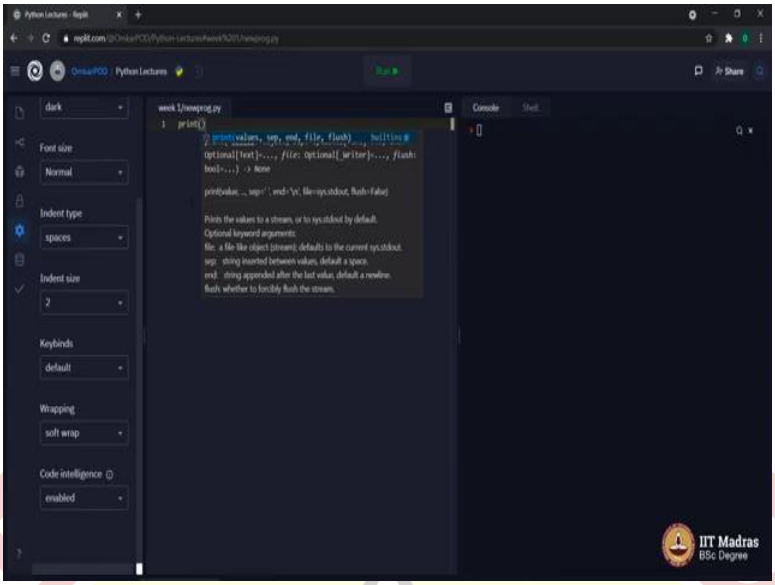

So, if you go to settings the first is layout, the default layout is side by side, but we can always change it to stacked. It will bring the place where we write the program at the top whereas the console where we see the output at the bottom. Also it has two different themes, which is light or it can be dark. Similarly, we can change the font size and so on.

There is one more interesting feature which you all must explore, which is this last option 'code intelligence'. Let us see the difference between disabled and enabled code intelligence feature. Let me type print command currently it is not showing any information regarding this particular command.

Let us enable this code intelligence feature and retype this print command. If you observe, we are getting various different options and it also provides the detailed information of this particular print command. We will explore all these options in detail as we go on, but for now you can read this information, which will help you to understand this particular command. These many features of Replit are sufficient for now. Let us move to Python program.

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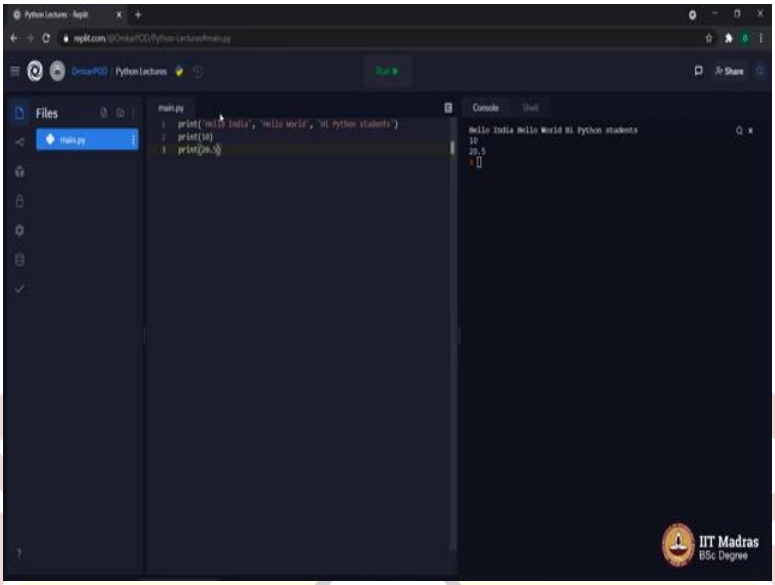

If you remember in last lecture you have studied a print command where you print something like this ‘hello India’ and executed the program. Now, I have one question for all of you - Is it necessary to print only one string at a time? What if I want to print ‘hello India’ as well as ‘hello world’ in a single print statement? Can we do that? Definitely, it is possible, we can write two different strings or two different messages in the same print command separated by comma, ‘hello world’.

Let us execute this, as you can see it is possible to print different messages using a simple print statement separated by comma. Similarly, we can add one more command as well, ‘hi Python students’. As you can see it is printing all three messages one after the another in that same order, which means the order is very important. The first message gets printed first, the second message appears next to it and then the third message and so on.

So, print is pretty flexible with respect to this where we can print one message at a time or it also allows us to print multiple messages. Let us ask one more question - Is it necessary to print only messages over here or can we print some numbers as well? What if I write something like print 10, what will happen if I write print 10? It prints the number 10 as it is.

Which indicates that it is not necessary that we only have to type messages using letters from a to z, we can also print numbers using print. Now, you all must be thinking is it necessary to print only whole numbers or can we print fractional numbers as well. Let us try it 20.5. Let us

execute, yes, we can we can print strings, we can print whole numbers or we can print fractional numbers using print.

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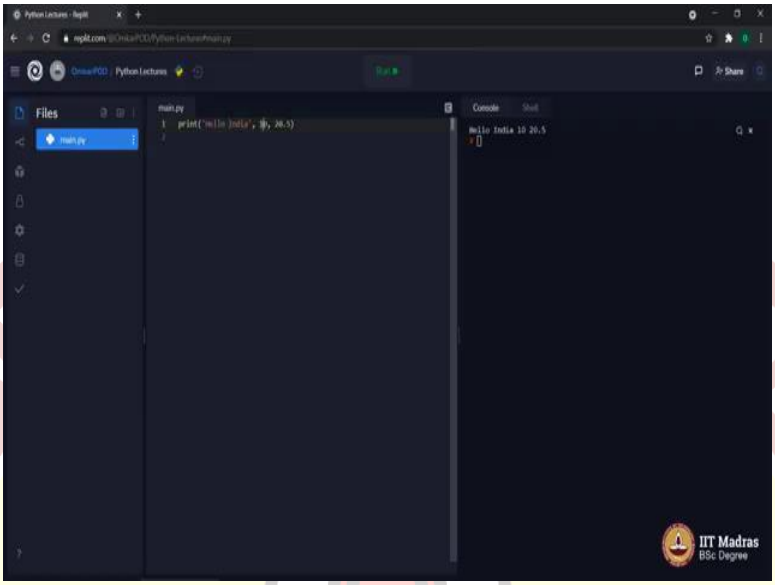

Now the next obvious question arises is can we combine all these three things together? Let us try that, let us replace this with 10 and this with 20.5. Let us remove this. Let us try to execute, yes, we can 'hello india', 10, 20.5. So, we can conclude that print command can be used to print multiple messages or multiple values at the same time. Also it allows us to print string whole numbers as well as fractional numbers together.

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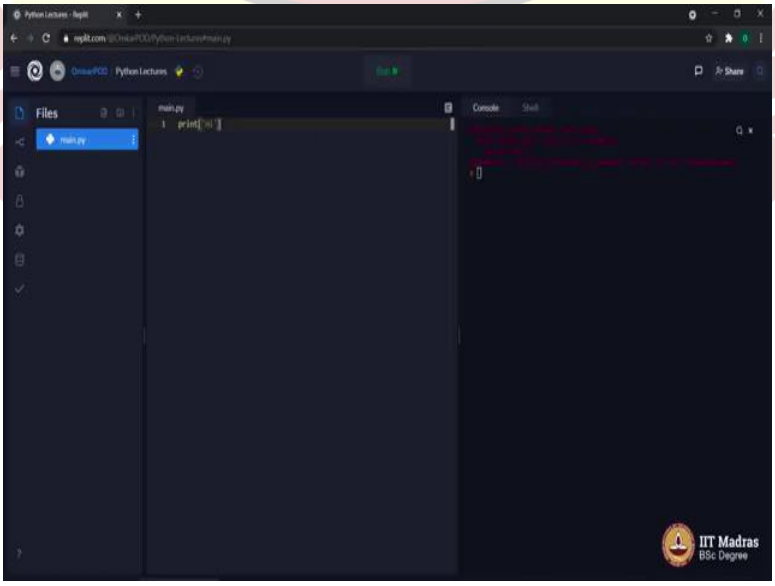

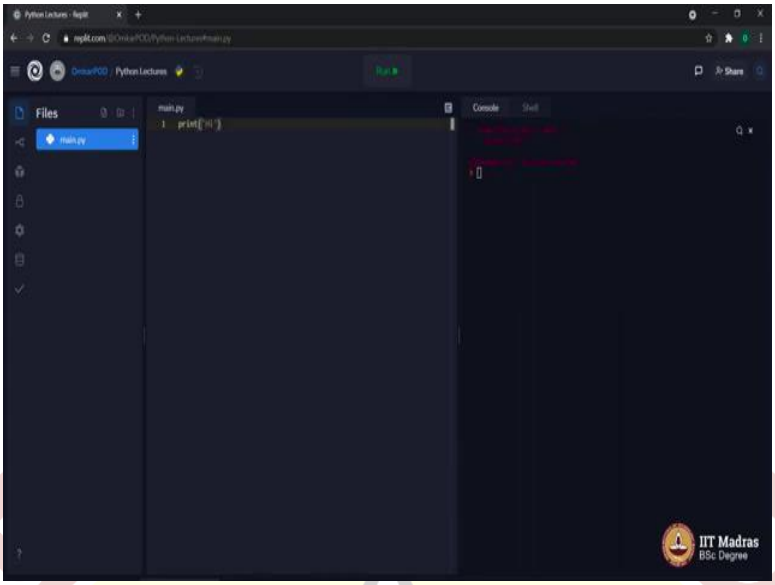

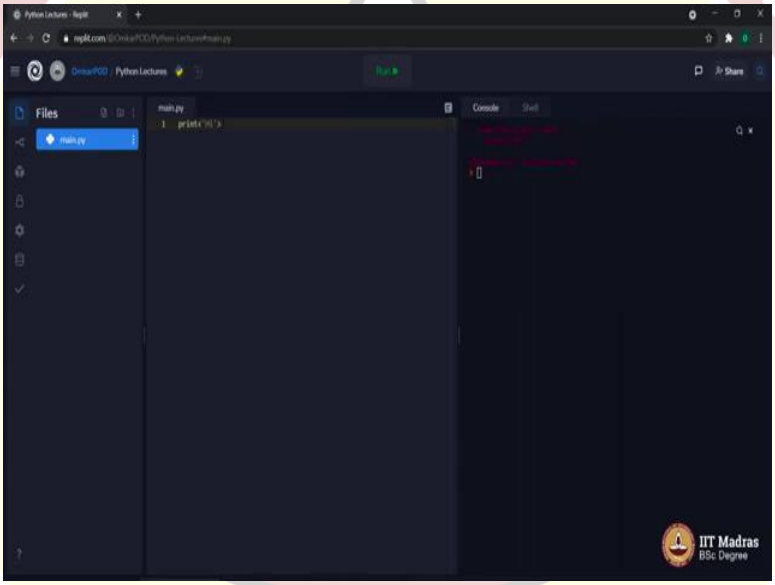

Now, let us look into the second part of this particular lecture, which is some common mistakes which you may do while writing the python program even with as simple statement as print. Let us look into those common mistakes. Print, first the spelling of word print might be wrong, which is kind of obvious, but the next part is more critical, you may think all brackets are same, but when it comes to programming each bracket has a specific meaning.

Usually after print, we use a round bracket. Now, is it necessary to use round bracket or can we use some other type of a bracket. Let us try it square bracket, hi, it shows an error message, which means square bracket is not allowed. Let us try a curly bracket, still an error message. Let us try angular brackets, again error message, which means in Python, along with print we must use round brackets.

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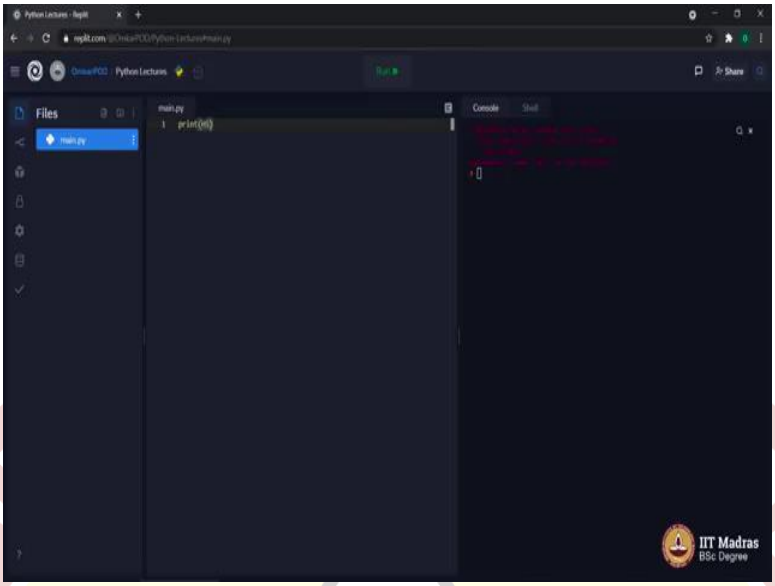

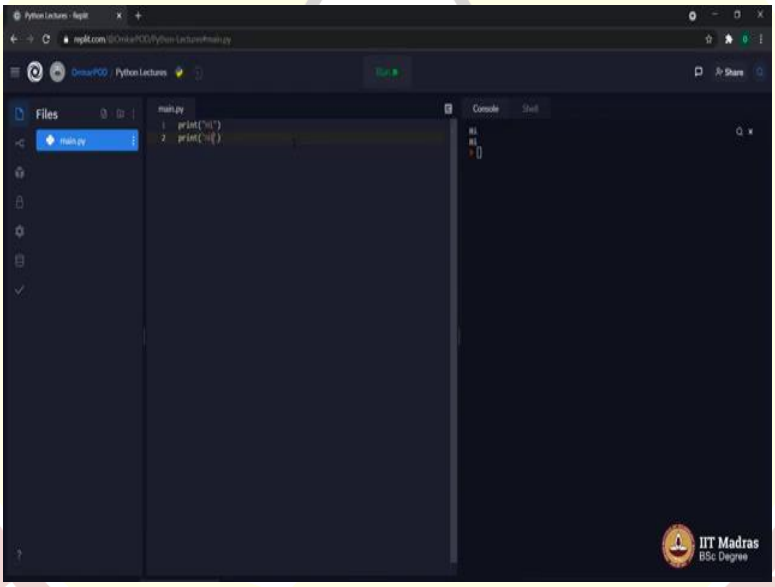

We always type whatever message we want to print in these single quotes. Is it necessary to have these quotes? Let us try, error message, which means the quotes are required. Now, the next question is – is it necessary to have single quotes or can we use double quotes as well, like this? What do you think whether the program will execute or it will not?

Let us try, it executes, which means Python is very strict when it comes to brackets, but it is very flexible when it comes to these quotes. We can use double quotes or we can use single quotes both works correctly, only requirement is if you open double quotes, then you must close with double quotes and if you open single quotes then you must close with single quotes. A combination of single and double quotes will not work.

All these various constraints of a language is generally referred as syntax, which defines how a particular code has to be written in a specific language. Thank you for watching this lecture. Happy learning!