Python for Data Science
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Lecture – 7
Jupyter Setup

(Video Start Time: 00:15)

So this is a small demo on how to install Jupiter and how to use the web app Jupiter. So, let us just start by installing the Jupiter package. So, you can just give pip install Jupiter. So, I already had it in my cache. So, that is why you see that if you just take leave it from the cache and if you just install it. So, in this course we will be using two IDE's one is Spider with the other is Jupiter and you see that some modules are bit Spider whereas the other modules are the Jupiter.

And this is from a point of getting your custom to both of these IDE's and from there on you can always choose whichever you were comfortable with. So, this is going to be a small demo on how to introduce you to the IDE Jupiter. So, let us launch Jupiter notebook now. So, you will see that since this is a web app it reopened with your default browser and this is how the interface looks and what you'll also see is that it directly opens to the C Drive.

So, under the C Drive you will see desktop, documents, downloads. Now if you do not want this to open to the C Drive there's also a way to set the directory from the terminal itself. So, let us see how to do that. So, I had come to my command prompt now and you need to just exit out of the C drive here. So, you can give your corresponding driver letter. So, for me it is D type and from there I just do CD.

So, this is the directory where I want my codes to be saved okay. So, I just do CD space D colon backslash Jupiter codes. So, this is the directory where I want my course to be safe now you can launch a Jupiter notebook from here. So, you will see that your directory is already set from the command prompt and it is empty because we do not have a file here. So, let us start by creating a Python file here. So, you can click on new and you can just choose Python 3.

If you can recall from the earlier lectures we would have emphasized on the fact that Jupiter

notebook is basically a collection of input cells and any input cells can have can hold codes, text, plots or any kind of description right. So, by default if you click on the cell you will see that it is code. So, I am just assigning a value of 5 to the variable a and in order for you to execute this cell you can just click on run.

So, this means that this line of code has already been executed. What you will also see is that against the first cell you see a letter In now In stands for input. We also see a number within these square indices. Now this refers to the line of code that you have run. If this is the first line of code that you have run then it is one. Now if I again run this then it becomes 2 though you are running the same line again and again now this number will keep changing how many of our times you hit run.

So, that is the only idea of this number. So, that is how you interpret this number that is within the square indices. So, now let us print the value of a and I am going to give the statement print. So, here you will see that the output is displayed just below the cell the value of a is 5 and the put is printed below the cell and this becomes a third line that you have run and hence the number within the square indices is 3.

So, let us just add some text. Now in order for you to add some text you just have to come out of the cell and you will see that the cell is highlighted as green and once you come out it gets highlighted as blue. Now you can click on the drop-down and change the option from code to markdown and this allows you to add texture. So, again you have to run the cell for the text to get displayed aAnd now you will see that the text is displayed.

Though we had typed it in a cell it still does not look like a code. It is a description more or less and that is the advantage of using Jupiter because it allows you to have narrative text and you can also add descriptions. Now instead of just typing it I am just going to make it in bold. So, whenever you start with a hash and include a space. So, that will basically make your text bold and you can use these wherever you want to add any heading or a title to your notebook.

And you can see that the font is big and it is also in bold. Now you can always change this font

by adding another hash. Now instead of one I have added two and I have again run it. You can see that the text is still in bold but then the size has reduced. So, this is how you add a text or a description above yourself. So, let us say if I want to add a line of code above the description sample code.

I just click on A from the keyboard. So, this adds a cell above. Similarly if you want to add a cell below you can just click on the cell and then hit B from the keyboard. So, A the letter A from the keyboard will add a cell above and the letter B from the keyboard adds a cell below right. So, this is one way to remember it. Similarly if you want to delete a cell just come outside of it and just click on D twice.

So, these are some operations with Jupiter notebook that you want to be familiar with and now let us just save this file as sample code and I saved it and you can also edit it from here this is another way of doing it. And if you look at this you will see that all your files are stored with an extension ipynb which means it is ipython notebook and this is something very specific to Jupiter. Now throughout the course we will be integrating Jupiter along with the spider interface and that is just to ease the purpose of demonstration but then you can continue on using Jupiter separately as a web application, thank you.

(Video End Time: 07:05)