Instruction sheet for Python Spoken Tutorial Team IIT Bombay





1 Online / Offline content

- 1. The online content of Spoken Tutorials can be accessed from :
 - https://spoken-tutorial.org/tutorial-search/
- 2. You can also download the Spoken Tutorials for offline learning from : https://spoken-tutorial.org/cdcontent/
- 3. From this link download the FOSS categories in the language you wish to learn.
- 4. The Spoken Tutorial content will be downloaded as a zip file on your machine.
- 5. Extract the contents of the zip file & access them.

2 The procedure to practise

- 1. You have been given a set of spoken tutorials and files.
- 2. You will typically do one tutorial at a time.
- 3. You may listen to a spoken tutorial and reproduce all the steps shown in the video.
- 4. If you find it difficult to do the above, you may consider listening to the *whole* tutorial once and then practise during the second hearing.

3 Python

- 1. Click on "Select FOSS Category" or "All FOSS Categories" drop-down and choose "Python 3.4.3".
- 2. Click on "Select Language" or "All Languages" drop-down and choose the language (English, Hindi, Marathi ...) in which you wish to learn.
- 3. Click on "Submit" button.
- 4. You will see a list of tutorials based on your selection.
- 5. Start with the first tutorial in the displayed list.

4 First Tutorial: Getting started with ipython

1. Locate the topic "Getting started with ipython" and click on it.

- 2. To view the tutorial, click on the Play icon which is located in the player.
- 3. The Pre-requisite will be visible below the player (only for Online contents).
- 4. Outline, Assignments and Code Files are available below the player.
- 5. Adjust the size of the browser in such a way that you are able to practice in parallel.

4.1 Open Python console in Linux OS

- (a) The tutorials are explained on the Linux OS.
- (b) It will be easy for Linux users to follow, as instructed on the tutorial.
- (c) Open the **Terminal** by pressing CTRL+ALT+T keys together.
- (d) In the Terminal window, type ipython3.
- (e) This will open the Python console with ipython preloaded.
- (f) Now, you can type your commands in the Python console.
- (g) In the Python scripts, we have used 4 spaces for indentation.
- (h) We have also used the *gedit* text editor.
- (i) You can use any text editor of your choice, for writing the Python scripts.

Note: Please use "python3/ipython3" command wherever the python version is not mentioned explicitly

4.2 Open Python console in Windows

- (a) To practise these tutorials on Windows OS, please follow these instructions.
- (b) For the first 6 tutorials in "Basic Level - C2 Level" use the Start >> All Programs >> ipython >> pylab interactive shell.
- (c) For "Intermediate Level C3
 Level" tutorials use the
 Start >> All Programs >> ipython
 interactive shell.

(d) For "Advanced Level - C4 Level" tutorials use

Start >> All Programs >> ipython >> scipy interactive shell.

Note: Please use "python3/ipython3" command wherever the python version is not mentioned explicitly

4.3 Common instructions to practice

- (a) Create folder on "Desktop" with your
 "Name-RollNo-Component"
 (Eg. "vin-04-Python").
- (b) Give a unique name to the files you save, so as to recognize it next time.(Eg. "Practice-1-vin").
- (c) Remember to save all your work in your folder.
- (d) This will ensure that your files dont get over-written by someone else.
- (e) Save your work from time to time, instead of saving it at the end of the task.

4.4 Common instructions for Assignments

- (a) Attempt the Assignments as instructed in the tutorial.
- (b) Save your work in your folder.

4.5 Common instructions to use Code Files

(a) Click on the link "Code files" located below the player and save it in your folder.

- (b) Extract the downloaded zip file.
- (c) You will see all the code/source files used in the particular tutorial.
- (d) Use these files as per the instructions given in the particular tutorial.
- 6. Play-pause-practise the whole tutorial.
- 7. Once the tutorial is complete, choose the next tutorial from the playlist which is located on the right side or below the player.
- 8. Follow all the above instructions, till you complete all the tutorials in the series.

5 Additional instructions for Tutorials.

- Tutorial 3 "Embellishing a plot" at 9:31: The xlim() function limits in Python 3.4.3 returns values assigned to x by linspace(). Python 3.6.8 returns slightly broader values.
- 2. Tutorial 5 "Multiple Plots" at 4:55: The legend in a plot goes to the best position in 3.6.8, but goes to the top-right corner in 3.4.3 by default.
- 3. Tutorial 13 "Getting started with for": Python2.7 interpreter used. But the examples work in Python 3.6.X.
- 4. Tutorial 14 "Getting started with string": Python 3.4.3 is mentioned but the examples work in Python 3.6.X.