Instruction sheet for Python Spoken Tutorial Team, IIT Bombay



1 Online / Offline content

- The online content of Spoken Tutorials can be accessed from: http://spoken-tutorial.org/tutorial-search/
- 2. You can also download the Spoken Tutorials for offline learning from : http://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 practise by reproducing all the steps shown in the video by Side-by-Side Method.
- 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" 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, ..) 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, Code Files and Slides 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

- 1. The tutorials are explained on the Linux OS.
- 2. It will be easy for Linux users to follow, as instructed on the tutorial.
- 3. Open the Terminal by pressing CTRL+ALT+T keys together.
- 4. In the Terminal window, type ipython3.
- 5. This will open the Python console with ipython preloaded.
- 6. Now, you can type your commands in the Python console.
- 7. In the Python scripts, we have used 4 spaces for indentation.
- 8. We have also used the gedit text editor.
- 9. 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

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

4. For "Advanced Level - C4 Level" tu- torials 5.3 use Start >> All Programs >> ipython >> scipy interactive shell.

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

5 Instructions to Practise

- 1. Create a folder on the "Desktop" with your "Name-RollNo-Component".
 - (Eg. "vin-04-python").
- 2. Give a unique name to the files you save, so as to recognize it next time.
 - (Eg. "Practice-1-vin").
- 3. Remember to save all your work in your folder.
- 4. This will ensure that your files don't get overwritten by someone else.
- 5. Save your work from time to time, instead of saving it at the end of the task.

5.1 Instructions to Practise for Windows OS users

- 1. To clear the command prompt, type: !cls
- 2. Please use !type instead of cat command
- 3. In the tutorial **Saving plots**, to open the *.eps file, that is for viewing vector graphics, you will need a program like **Inkscape**.

5.2 Instructions for Assignments

- 1. Attempt the Assignments as instructed in the tutorial.
- 2. Save your work in your folder.

5.3 Instructions to use Code files

- 1. Click on the link "Code files" located below the player and save it in your folder.
- 2. Extract the downloaded zip file.
- 3. You will see all the code/source files used in the particular tutorial.
- 4. Use these files as per the instructions given in the particular tutorial.
- 5. Play-pause-practise the whole tutorial.
- 6. Once the tutorial is complete, choose the next tutorial from the playlist which is located on the right side or below the player.
- 7. Follow all the above instructions, till you complete all the tutorials in the series.

6 Additional instructions for Tutorials.

- 1. 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.