

1 Online / Offline content

- 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 commands 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 FreeCAD

- 1. Click on "Select FOSS" or "All FOSS Categories" drop-down and choose "FreeCAD".
- 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 Common instructions for Assignments

1. Attempt the Assignments as instructed in the tutorial.

2. Save your work in your folder.

4.1 Common 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.

5 Tutorial 1: Installation of FreeCAD

- 1. Please locate the tutorial "Installation of FreeCAD" and watch it.
- 2. To view the tutorial, click on the Play icon which is located in the player.
- 3. The Pre-requisite and slides 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.
- 6. Ensure that the Draft workbench is selected.
- 7. Please follow the tutorial and reproduce all the activities as shown in the tutorial.
- 8. When you finish this topic, click on the next tutorial.

5.1 Tutorial 2: Basic Orthographic Drawing

- 1. This tutorial explains the initial settings and preferences of panels and toolbars to start an exercise.
- 2. Ensure the workbench selected is the Draft workbench.



- 3. Please follow the tutorial for drawing a line with the help of draft creation and draft snap tools.
- 4. Please note that the look feel of the software may differ depending upon the software version that you are useing.

5.2 Tutorial 3: Inscribe a Polygon

- 1. This tutorial explains the basic steps to draw an object(polygon) in the FreeCAD draft workbench.
- 2. Understand how to draw a pentagon using the inscribing circle method.
- 3. Practice how to change the various properties of any object and to provide annotations (marking, notations etc.,)
- 4. Use the various options available in the view toolbar.

5.3 Tutorial 4: Draft Modification Tools

1. This tutorial explains the various modification tools in the draft workbench, namely mirror, move, copy, rotate, trim, extend, offset, upgrade, downgrade and line separation. 2. Please follow the tutorial and reproduce all the activities as shown in the tutorial.

5.4 Tutorial 5: Modifications and Dimensioning

- 1. This tutorial continues with draft modification tools like fillet, chamfer and split.
- 2. Understand the necessity of enabling the various draft snap tools, namely snap end point, mid-point, perpendicular, parallel, intersection, ortho, etc.
- 3. Practice how to make linear, angular dimensions and leader lines.

5.5 Tutorial 6: Hatch and Array

- 1. This tutorial explains how to hatch an object, and the procedure to make polar, circular, rectangular and path arrays.
- 2. Please follow the tutorial and reproduce all the activities as shown in the tutorial.
- 3. Similarly practice all the tutorials available in the FreeCAD tutorial series.