Embellishing a plot

Spoken Tutorial Project
http://spoken-tutorial.org

National Mission on Education through ICT

http://sakshat.ac.in

Script: Aditya P.

Narrator: Usha V.

IIT Bombay

16 October 2016

Objectives

- Modify the attributes of the plot – color, line style, linewidth.

- Modify the attributes of the plot – color, line style, linewidth.
- Add a title to the plot with embedded LaTeX.

Objectives

- Modify the attributes of the plot – color, line style, linewidth.
- Add a title to the plot with embedded LaTeX.
- Label x and y axes.

Objectives

- **Modify the attributes of the plot – color, line style, linewidth.**
- **Add a title to the plot with embedded LaTeX.**
- **Label x and y axes.**
- **Add annotations to the plot.**

Objectives

- ▶ **Modify the attributes of the plot – color, line style, linewidth.**
- ▶ **Add a title to the plot with embedded LaTeX.**
- ▶ **Label x and y axes.**
- ▶ **Add annotations to the plot.**
- ▶ **Set and get the limits of axes.**

System Requirements

System Requirements

- **Ubuntu Linux 14.04 operating system**

System Requirements

- **Ubuntu Linux 14.04 operating system**
- `Python 3.4.3`

System Requirements

- **Ubuntu Linux 14.04 operating system**
- `Python 3.4.3`
- `IPython 5.1.0`

Pre-requisites

To practice this tutorial, you should know how to

To practice this tutorial, you should know how to

- ▶ **run basic Python commands on the ipython console**

Pre-requisites

To practice this tutorial, you should know how to

- ▶ **run basic Python commands on the ipython console**
- ▶ **use Plots interactively.**

Pre-requisites

To practice this tutorial, you should know how to

- ▶ **run basic Python commands on the ipython console**
- ▶ **use Plots interactively.**

If not, see the pre-requisite Python tutorials on http://spoken-tutorial.org

Plot the curve of `x` vs `cos(x)` in red dashed line and linewidth 3

Exercise 2

- **Make an annotation called "root" at the point (-4, 0).**
- **What happens to the first annotation?**

Summary

- Modify the attributes of a plot by passing additional arguments.
- Add title to a plot using 'title' command.
- Incorporate LaTeX style formatting by adding a $ sign before and after the part of the string.

Summary

- Label x and y axes using 'xlabel()' and 'ylabel()' commands.

- Add annotations to a plot using annotate() command.

- Get and set the limits of axes using 'xlim()' and 'ylim()' commands.

Assignment

1. **Draw a plot of cosine graph between -2pi to 2pi with line thickness 4.**

2. **Read the documentation & find out is there a way to modify the alignment of text in the command "ylabel". (Yes or No)**

Solutions

1. `x = linspace(-2*pi, 2*pi)`
   `plot(x,cos(x),linewidth=4)`
2. **No**

Forum to answer questions

- **Do you have questions on THIS Spoken Tutorial?**
- **Choose the minute and second where you have the question.**
- **Explain your question briefly.**
- **Someone from the FOSSEE team will answer them. Please visit http://forums.spoken-tutorial.org/**

Forum to answer questions

- **Questions not related to the Spoken Tutorial?**
- **Do you have general / technical questions on the Software?**
- **Please visit the FOSSEE Forum**

  http://forums.fossee.in/
- **Choose the Software and post your question.**

Textbook Companion Project

- **The FOSSEE team coordinates coding of solved examples of popular books**

- **We give honorarium and certificate to those who do this**

For more details, please visit this site:
http://tbc-python.fossee.in/

Acknowledgements

- **Spoken Tutorial Project is a part of the Talk to a Teacher project**
- **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- **More information on this Mission is available at:**
  http://spoken-tutorial. org/NMEICT-Intro

THANK YOU!

For more Information, visit our website
http://fossee.in/