

Statistics and Box Plot

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

Rani Parvathy

IIT Bombay

21 January, 2020



Learning Objectives



Learning Objectives

- ▶ Plot string data on x-axis



Learning Objectives

- ▶ **Plot string data on x-axis**
- ▶ **Calculate statistical summary for the input file**



Learning Objectives

- ▶ Plot string data on x-axis
- ▶ Calculate statistical summary for the input file
- ▶ Draw candlestick plot



Learning Objectives

- ▶ Plot string data on x-axis
- ▶ Calculate statistical summary for the input file
- ▶ Draw candlestick plot
- ▶ Draw boxplot with & without outliers



Learning Objectives



Learning Objectives

- **Specify the position of boxplot on x-axis**



System Requirements



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► **Ubuntu Linux v 16.04 OS**



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- ▶ `gnuplot v 5.2.6`



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- ▶ `gnuplot v 5.2.6`
- ▶ **Gedit v 3.18**



Pre-requisites



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- ▶ **Learner must be familiar with the basics of gnuplot**



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- ▶ **Learner must be familiar with the basics of gnuplot**
- ▶ **For prerequisite gnuplot tutorials please visit this site**

<https://spoken-tutorial.org>



Code Files



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- The files used in this tutorial are provided in the Code files link



Code Files

- ▶ **The files used in this tutorial are provided in the Code files link**
- ▶ **Please download and extract them**



Summary



Summary

- ▶ **Plotted string data on x-axis**
- ▶ **Calculated statistical summary with stats command**
- ▶ **Generated candlestick plot**
- ▶ **Generated box plot with and without outliers**



Summary



Summary

- Specified the x-axis position for the box plot



Assignment 1



Assignment 1

- ▶ Practice the box plot with and without outliers for the file **boxplot.txt**
- ▶ Practice and understand example boxplot styles from `gnuplot` website

http://gnuplot.sourceforge.net/demo_5.2/



Assignment 2



Assignment 2

- ▶ **Draw a Time-activity graph for your daily activities**
- ▶ **For this, time your activities in a day and make a time table**
- ▶ **Plot time in hours on y-axis and activities on x-axis**



About the Spoken Tutorial Project

- ▶ Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



Forum questions

- ▶ Questions in **THIS Spoken Tutorial?**
- ▶ Visit <https://forums.spoken-tutorial.org>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ The Spoken Tutorial project will ensure an answer

You will have to register to ask questions



Acknowledgements

Spoken Tutorial Project is supported by

- ▶ **National Mission on Education through ICT (NMEICT)**
- ▶ **Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)**

MHRD, Government of India

