



Bundle Course – Data Visualization in Python and R

Bundle Course – Data Visualization in Python and R – Course Syllabus

Data Visualization in Python – Course Syllabus

Introduction to Data Visualization

- What is data visualization
- Benefits of data visualization
- Importance of data visualization

- Top Python Libraries for Data Visualization



Matplotlib

- Introduction to Matplotlib
- Install Matplotlib with pip
- Basic Plotting with Matplotlib
- Plotting two or more lines on the same plot



Numpy and Pandas

- What is numpy?
- Why use numpy?
- Installation of numpy
- Example of numpy
- What is a panda?
- Key features of pandas
- Python Pandas - Environment Setup
- Pandas – Data Structure with example



Data Visualisation tools

- Bar chart
- Histogram
- Pie Chart



More Data Visualisation tools

- Scatter Plot
- Area Plot
- Stacked Area Plot

- Box Plot

Advanced data Visualisation tools

- Waffle Chart
- Word Cloud
- HEAT MAP

Specialized data Visualisation tools (Part-I)

- Bubble charts
- Contour plots
- Quiver Plot

Specialized data Visualisation tools (Part-II)

- Three-Dimensional Plotting in Matplotlib
- 3D Line Plot
- 3D Scatter Plot
- 3D Contour Plot
- 3D Wireframe Plot
- 3D Surface Plot

Seaborn

- Introduction to seaborn
- Seaborn Functionalities
- Installing seaborn
- Different categories of plot in Seaborn
- Some basic plots using seaborn

Data Visualisation using Seaborn

- Strip Plot
- Swarm Plot
- Plotting Bivariate Distribution
- Scatter plot, Hexbin plot, KDE, Regplot
- Visualizing Pairwise Relationship
- Box plot, Violin Plots, Point Plot

Project on Data Visualisation using Python

Data Visualisation in R – Course Syllabus

- What is data visualization?
- Selecting right chart type
- Importance of data visualization & its benefits
- Applications of DATA Visualization
- R Programs for Scatterplot, Histogram, Bar & Stacked bar chart, boxplot, heatmap, line chart, density plot, pie chart

Data Visualisation with ggplot2 package

- What is ggplot2
 - Plotting with ggplot2
 - Building your plots iteratively
 - Univariate distributions & bar plot

- Annotation with ggplot2
- Axis manipulation
- Density plot

More Data Visualisation tools in R

- Text mining and word cloud
- Radar chart
- Waffle chart
- Area Chart
- Correlogram

Project on Data Visualisation in R