



Seaborn



India's Most Affordable Pay After Placement Data Analytics Course



Seaborn:

Visualization is an important part of storytelling, we can gain a lot of information from data by simply just plotting the features of data. Python provides a numerous number of libraries for data visualization



- Seaborn is a library for making statistical graphics in Python. It builds on top of matplotlib and integrates closely with pandas data structures.
- Seaborn helps you explore and understand your data. Its plotting functions operate on dataframes and arrays containing whole datasets and internally perform the necessary semantic mapping and statistical aggregation to produce informative plots. Its dataset-oriented, declarative API lets you focus on what the different elements of your plots mean, rather than on the details of how to draw them.

India's Most Affordable Pay After Placement Data Analytics Course



Seaborn:

- Different categories of plot in Seaborn
- Plots are basically used for visualizing the relationship between variables. Those variables can be either completely numerical or a category like a group, class, or division. Seaborn divides the plot into the below categories –



- Relational plots: This plot is used to understand the relation between two variables.
- Categorical plots: This plot deals with categorical variables and how they can be visualized.
- Distribution plots: This plot is used for examining univariate and bivariate distributions

India's Most Affordable Pay After Placement Data Analytics Course



Seaborn:

- Different categories of plot in Seaborn
- Plots are basically used for visualizing the relationship between variables. Those variables can be either completely numerical or a category like a group, class, or division. Seaborn divides the plot into the below categories –



- Regression plots: The regression plots in Seaborn are primarily intended to add a visual guide that helps to emphasize patterns in a dataset during exploratory data analyses.
- Matrix plots: A matrix plot is an array of scatterplots.
- Multi-plot grids: It is a useful approach to draw multiple instances of the same plot on different subsets of the dataset.

India's Most Affordable Pay After Placement Data Analytics Course





Seaborn:

- Installation of Seaborn Library
- For Python environment :
- pip install seaborn
- For conda environment :
- conda install seaborn





India's Most Affordable Pay After Placement Data Analytics Course



Seaborn:

- Dependencies for Seaborn Library
- There are some libraries that must be installed before using Seaborn. Here we will list out some basics that are a must for using Seaborn.

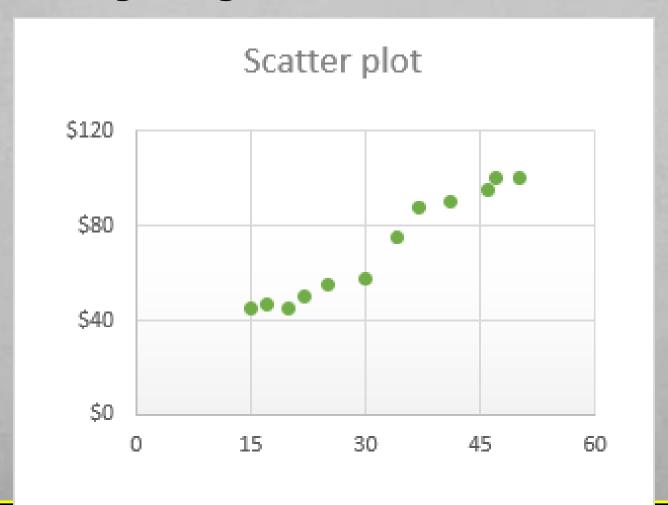


- Python 3.6 or higher
- numpy (>= 1.13.3)
- scipy (>= 1.0.1)
- pandas (>= 0.22.0)
- matplotlib (>= 2.1.2)

India's Most Affordable Pay After Placement Data Analytics Course



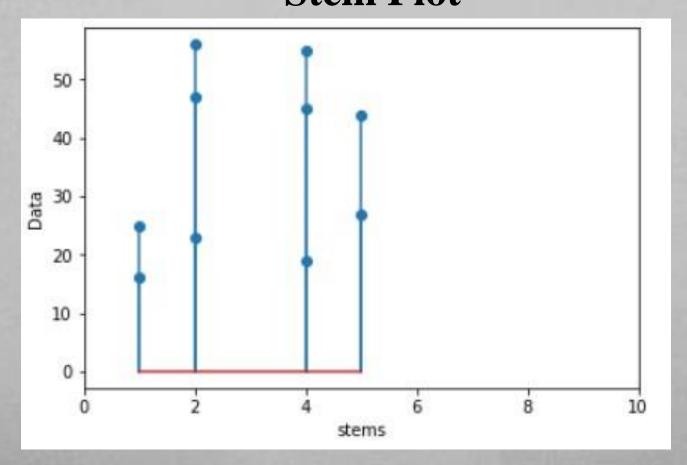




India's Most Affordable Pay After Placement Data Analytics Course

30 Days Python Master Class Stem Plot

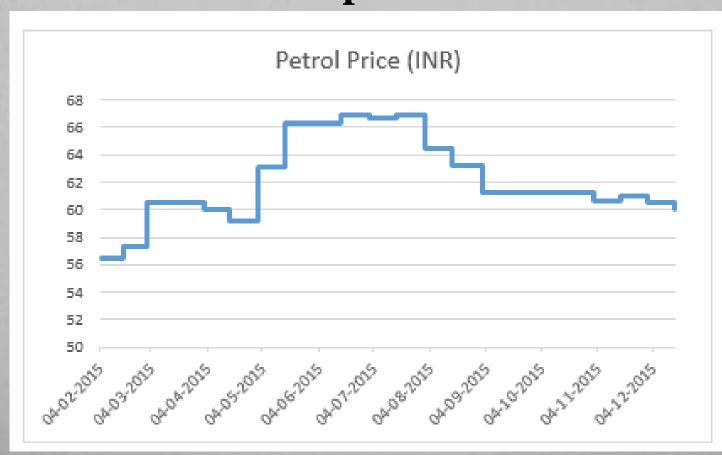




India's Most Affordable Pay After Placement Data Analytics Course

30 Days Python Master Class Step Plot



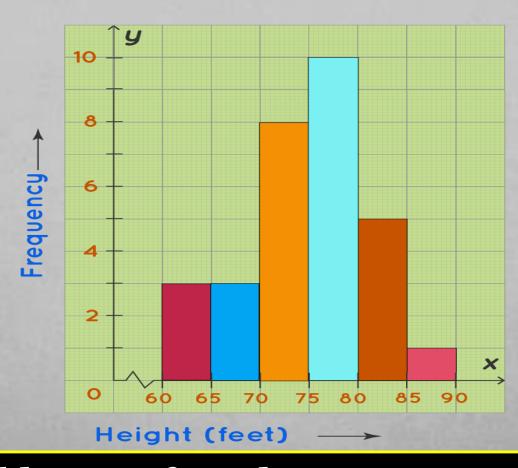


India's Most Affordable Pay After Placement Data Analytics Course



30 Days Python Master Class Hist Plot

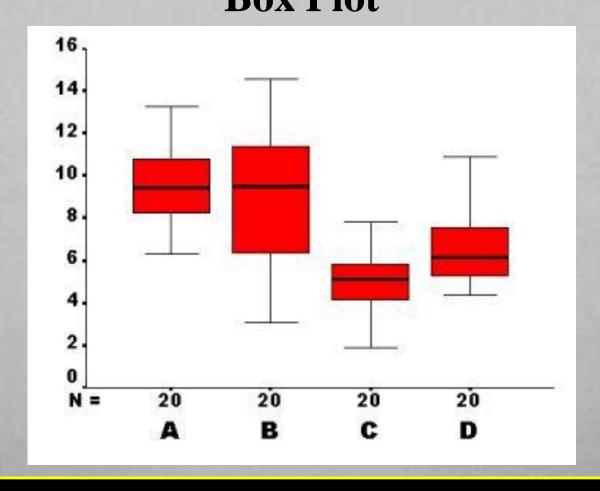




India's Most Affordable Pay After Placement Data Analytics Course

30 Days Python Master Class Box Plot

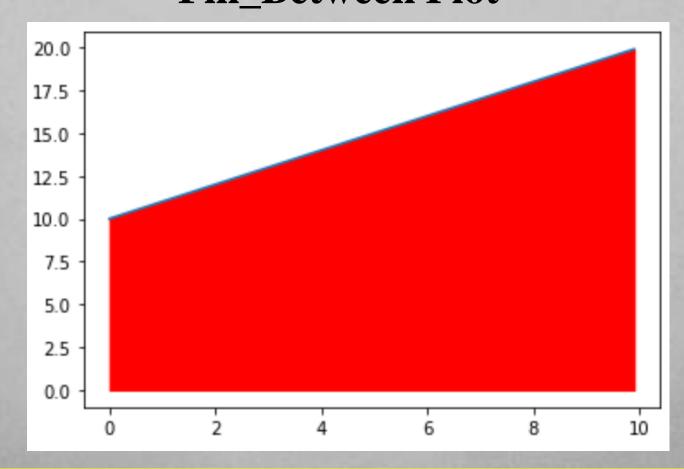




India's Most Affordable Pay After Placement Data Analytics Course

30 Days Python Master ClassFill Between Plot



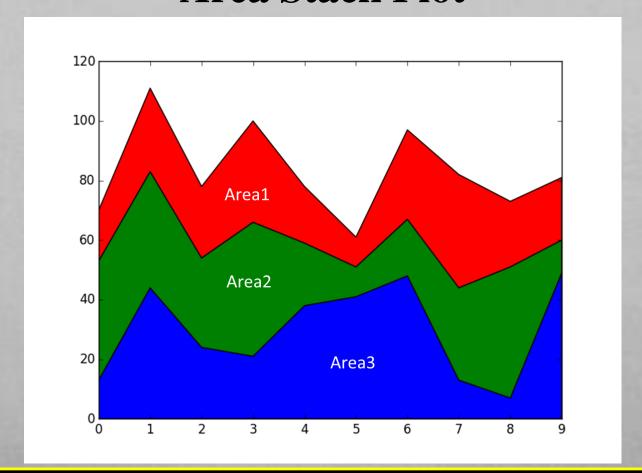


India's Most Affordable Pay After Placement Data Analytics Course





Area Stack Plot

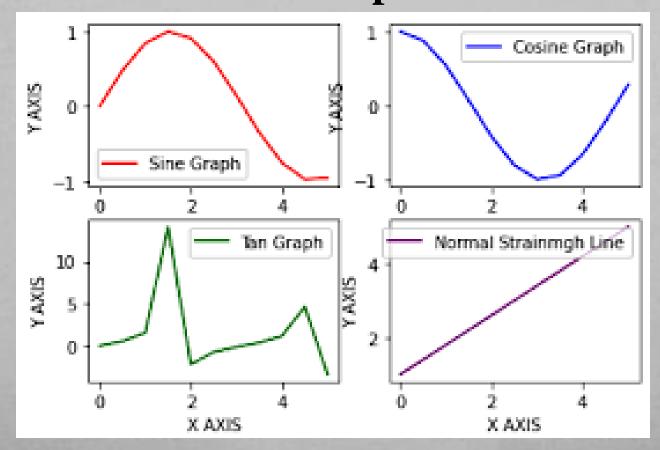


India's Most Affordable Pay After Placement Data Analytics Course



30 Days Python Master Class Subplot





India's Most Affordable Pay After Placement Data Analytics Course

30 Days Python Master Class Curious Data Minds



Data Science Case Studies in Healthcare

Pfizer is a multinational pharmaceutical company headquartered in New York, USA. One of the largest pharmaceutical companies globally known for developing a wide range of medicines and vaccines in disciplines like immunology, oncology, cardiology, and neurology. Pfizer became a household name in 2010 when it was the first to have a COVID-19 vaccine with FDA. In early November 2021, The CDC has approved the Pfizer vaccine for kids aged 5 to 11. Pfizer has been using machine learning and artificial intelligence to develop drugs and streamline trials, which played a massive role in developing and deploying the COVID-19 vaccine. Here are a few applications of Data science used by Pfizer:



India's Most Affordable Pay After Placement Data Analytics Course

30 Days Python Master Class Curious Data Minds



Data Science Case Studies in Healthcare

i) Identifying Patients for Clinical Trials

Artificial intelligence and machine learning are used to streamline and optimize clinical trials to increase their efficiency. Natural language processing and exploratory data analysis of patient records can help identify suitable patients for clinical trials. These can help identify patients with distinct symptoms. These can help examine interactions of potential trial members' specific biomarkers, predict drug interactions and side effects which can help avoid complications. Pfizer's Al implementation helped rapidly identify signals within the noise of millions of data points across their 44,000-candidate COVID-19 clinical trial.



India's Most Affordable Pay After Placement Data Analytics Course

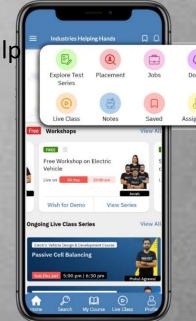
30 Days Python Master Class Curious Data Minds



Data Science Case Studies in Healthcare

ii) Supply Chain and Manufacturing

Data science and machine learning techniques help pharmaceutical companies better forecast demand for vaccines and drugs and distribute them efficiently. Machine learning models can help identify efficient supply systems by automating and optimizing the production steps. These will help supply drugs customized to small pools of patients in specific gene pools. Pfizer uses Machine learning to predict the maintenance cost of equipment used. Predictive maintenance using AI is the next big step for Pharmaceutical companies to reduce costs.



India's Most Affordable Pay After Placement Data Analytics Course

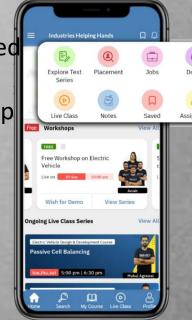
30 Days Python Master Class Curious Data Minds



Data Science Case Studies in Healthcare

iii) Drug Development

Computer simulations of proteins, and tests of their interactions, and yield analysis help researchers develop and test drugs more efficiently. In 2016 Watson Health and Pfizer announced a collaboration to utilize IBM Watson for Drug Discovery to help accelerate Pfizer's research in immuno-oncology, an approach to cancer treatment that uses the body's immune system to help fight cancer. Deep learning models have been used recently for bioactivity and synthesis prediction for drugs and vaccines in addition to molecular design. Deep learning has been a revolutionary technique for drug discovery as it factors everything from new applications of medications to possible toxic reactions which can save millions in drug trials.



India's Most Affordable Pay After Placement Data Analytics Course

30 Days Python Master ClassCurious Data Minds







India's Most Affordable Pay After Placement Data Analytics Course





Thankyou for Watching

India's Most Affordable Pay After Placement Data Analytics Course