Data Analysis using Python

Day No.	Topic Name	Sub Topics
Morning	Introduction to Data Analysis	Introduction to Data Types of Data in Statistics (Numerical & Categorical) Overview of Python Concepts
Afternoon	Data Manipulation with NumPy	Introduction NumPy Arrays NumPy Basics Math Indexing Random Filtering Statistics Aggregation Saving Data
Morning	Data Analysis with Pandas	Introduction to Data Analysis using Pandas Pandas Series Pandas DataFrame Combining Indexing File I/O Grouping Features Filtering Sorting Stastical Plotting
Afternoon	Data Cleaning with Pandas & Data Preprocessing with Scikit Learn	Introduction to Data Preprocessing and Scikit-Learn Standardizing of Data Robust Scaling Data Range Normalizing Data Label Encoder and One Hot Encoding Polynomial Features Working with Duplicates and Missing Values Which values should be replace with missing values based on type of data Identifying and Eliminating of Outliers Filling missing data using Data Imputation

Morning	Introduction to Data Visualization with Matplotlib	Introduction to Visualization and Python packages Matplotlib history and Architecture Introduction to plotting Line Plot Scatter Plot Bar Graph Histogram Pie Chart Box Plot
Afternoon	Data Visualization With Seaborn	Using Seaborn Styles Setting the default style Color Palettes - Creating Custom Palettes stripplot() and swarmplot() boxplots, violinplots barplots, pointplots and countplots Regression Plots Binning data Creating heatmaps Applying on raw dataset and introduction to Kaggle and other data sources