

Numpy,Pandas,Visualization

DAY-1

- Indexing and slicing numpy arrays
- Working with 2 dimensional arrays (slicing, indexing, comparison operations)
- Arithmetic operations on 2 dimensional arrays

Iterating 2 dimensional arrays using for loops

- Operations on 2 dimensional arrays (stacking and splitting , vstack, hstack, vsplit and hsplit operations)

Lab Exercises (2 hrs)

DAY - 2

- Explain the Data Structures with examples?
- How to create, manipulate the data frames?
- Reading data from various sources.
- Indexing, sorting, rank.

Lab Exercises (2 hours)

DAY -3

- Merge, join, concatenate.
- Reshaping,pivoting,duplicating,mapping,replacing
- Summary statistics (Mean, Median, Mode, Skewness, Kurtosis)

Lab Exercises (2 hours)

DAY-4

- What are the Visualization libraries?
- Overview on seaborn and matplotlib packages
- What are the Various plot using this visualization libraries?
- Distribution plots – Histogram, frequency polygon
- Representing data using charts – bar chart, pie chart
- Checking for data anomalies and outliers – box plots
- Association between variables – correlation heatmap, scatter plots, pairplots

Lab Exercises (2 hours)