



JAWAN **PAKISTAN**

Training Outline Data Analytics Using Python, Power BI, SQL and AI

1) Python for Data Analytics

- Basics of Python
- Variables
- Data Types
- Typecasting
- Booleans
- Lists in Details
- Tuples in Details
- Dictionary in Details
- Sets
- Method of All above mentioned topics
- If else elif conditions
- For loop
- While loop
- Exploring Built in function
- User define functions
- Lambda functions and list comprehension
- String formatting
- Object Oriented Programming with Pillars
- Exploring File System in Python
- Error Handling and Debugging

2) Python for Data wrangling

- Introduction to Pandas and Numpy
- Exploring data with Pandas
- Data importing and cleaning
- Handling missing and duplicates data
- Deal with outliers
- Project Making using Data Wrangling

3) GitHub (Distributive Version Control System)

4) Advance Excel

5) Exploratory Data Analysis (EDA)

- Introduction to libraries: Matplotlib and Seaborn
- Hands on Creating: Bar plot, Histograms, and Distributions, Line graphs, Scatter Plots and Correlation etc
- Storytelling Data Visualization
- Descriptive Statistics (MEAN , MEDIAN , MODE)
- Project work using EDA

5) Data Scrapping using Web

- Exploring Python Frameworks including Beautiful Soap
- Exploring Tools for Data Scrapping

6) SQL for data Analytics

- Introduction to SQL
- Joining data in SQL
- SQL wildcards
- Sub Queries in SQL
- Building and organizing Complex Queries
- Table Relations and Normalization
- Handson using Project work

7) Power Bi

- Introduction to power Bi overview, setup, and functionalities
- Hands on creating visualizations using power Bi
- Project work using PowerBi

8) Tableau for Data Analytics and Descriptive Statistics

9) Data Analytics with AI

- Exploring Generative AI platforms
- Working on Data Analytics with Generative AI
- Making Automate Process of Analytics using AI