Data Analytics - TRAINING & PLACEMENT PROGRAM

Syllabus

Module 1 : MS Excel

- Installation and Introduction to Excel

- Understanding the Structure of the Workbook & Worksheet Excel Calculation

- Excel File Handling

- Excel Formulas and Functions

- Excel Advance - VLOOKUP, Pivot Chart, Basic Macros, and More Data Analysis

- Hands-on Sessions and Assignments for Practice

- Excel – Non-Graded Exam

Module 2: MySQL Database

- Installation and Introduction to MySQL

- MySQL Databases

- Table and Views

- Statements and Fundamentals

- Data Types in MySQL

- Aggregate Functions

- SQL Constraints

- SQL Joins

- Union and Union All

- Clauses in MySQL

- Control Flow Function

- Conditions in MySQL

- Hands-on Sessions and Assignments for Practice

- MySQL – Graded Exam

Module 3 : Power BI for Data Visualization

- Basics of Power BI

- Types of Graphs and When to create them

- Working with Filters

- Calculated Columns, Calculated Measures & Calculated Tables

- Formatting and Styling of Graphs and Dashboards

- Writing basic and Advanced DAX Queries

- Data Visualization using Power BI

- Hands-on Sessions and Assignments for Practice

- Power BI – Graded Exam

Module 4 : Looker Studio for Data Visualization

- Basics of Google Looker Studio

- Getting Started

- Connecting Google Sheets, CSV, Excel files

- Connecting Google Analytics, Google Search Console Files

- Digital Marketing Data Analytics with Looker Studio

- Creating Graphs, Dashboards, Pages, and Reports with Looker Studio

Module 5 : Tableau for Data Visualization

- Basics of Tableau and its different versions

- Software Installation and Online Authoring

- Connecting CSV, Excel, JSON, MySQL, Postgresql, MSSQL etc. with Tableau

- Digital Marketing Data Analytics with Tableau

- Creating Graphs, Dashboards, Stories, and Reports with Tableau

- Calculated Fields, Parameters, Groups in Tableau

- Filters at different Level in Tableau

- Relationships and Joins in Tableau

- Clustering, Trend Analysis and Forecasting Data With Tableau

- Exercise on different projects in Tableau

Module 6 : Core Python Programming

- Introduction and Software Installation
- Basic of Python
- Data Types and Operations with different types of data
- Control Statement and Looping
- Data Structures
- Functions in Python
- Libraries
- File Handling
- Exception Handling
- Hands-on Sessions and Assignments for Practice
- Python – Graded Exam

Module 6 : Python Libraries for Data Analysis

- Working with JSON Data and JSON APIs
- Learn Python Pandas in detail
  - Series and Dataframe Basics
  - Connecting with Excel, Csv, Json, SQL and HTML datasets
  - Data Cleaning, Missing Data Handling
  - Exporting to Excel and CSV files
  - Reshaping : Crosstab, Melt, Pivot, Join, Merge, Groupby etc.
  - Plotting Bar, Pie, Line, Scatter, Box, Histogram etc. graphs with Pandas
  - Working with TimeSeries Data & its analysis
- Learn Seaborn & Matplotlib for Advanced Data Visualization

Module 7 : Python Libraries for Machine Learning

- Supervised and Unsupervised Machine Learning concepts
- Applying Linear Regression, Logistic Regression algorithms on datasets
- Applying Decision Tree, Support Vector Machine, Random Forest etc. Classification algorithms on datasets
- Working with Clustering and other Unsupervised Algorithms
- Creating Machine Learning Models

Module 8: Resume Building and Personality Development

Highlights : Working on 20 Public Projects and 3 Major Projects