CRACK-ED

Course Title: Integrated Data Mastery - Excel, Power BI, SQL, and Python

This integrated course is meticulously designed to empower participants with a comprehensive skill set, combining Microsoft Excel, Power BI, SQL, and Python for advanced business analytics and data analysis. This program covers data cleaning, statistical analysis, dashboard creation, and advanced analytics using Excel. It seamlessly transitions into mastering Power BI for importing, modeling, and visualizing data. The SQL segment focuses on SQL Server concepts, T-SQL, and database management, while the Python section covers programming fundamentals, data structures, and data analysis. Participants will gain hands-on experience, enabling them to tackle diverse data challenges.

Course Duration: 35 hours

Learning Outcomes:

Master Comprehensive Data Analytics Skills:
- Understand the significance of Business Analytics in real-world applications.
- Develop a holistic skill set covering Microsoft Excel, Power BI, SQL, and Python.

Excel Proficiency in Business Analytics:
- Master data cleaning, preparation, and advanced formatting techniques in Excel.
- Analyze data effectively using Pivot Tables and create interactive dashboards.

Advanced Power BI Competence:
- Design & optimize data models, utilizing DAX functions for advanced calculations.
- Create diverse visualizations for effective data representation and optimize model performance.

SQL Mastery for Database Management:
- Establish a strong foundation in Microsoft SQL Server concepts and Transact-SQL.
- Efficiently create and manage database objects, write SQL queries, and implement advanced querying techniques.

Python Programming and Data Analysis Proficiency:
- Apply OOP concepts and perform data analysis tasks using Pandas.
- Connect Python to databases, visualize data using Matplotlib & Seaborn, and apply techniques to real-world scenarios.

Application of Integrated Skills:
- Apply learned skills to practical scenarios through a Case Study.
- Demonstrate the ability to leverage Excel, Power BI, SQL, and Python collectively for diverse data challenges.

Who Should Attend:

- Freshers looking to kick start their career in Business Analytics.
- Professionals seeking to enhance their Business Analytics skills.
- Data analysts, business analysts, and decision-makers.
- Managers aiming to leverage Excel, Power BI, SQL, and Python for advanced analytics.

Certification:

Upon successful completion, participants will receive a certification in "Integrated Data Mastery" by Crack-ED. The participants will be able to apply for certifications like PL-300, PCDAP, PCEP

Note:

This course is designed to accommodate participants from entry level to advanced proficiency.

Course Outline:

Module 1-9: Business Analytics with Excel (6 hours)

- Understanding Business Analytics and Excel Basics
- Introduction to Business Analytics
- Data Cleaning, Preparation, and Excel Functions
- Formatting, Conditional Formatting, and Important Functions
- Analyzing Data with Pivot Tables, Dashboarding, Advanced Analytics
- Analytics With Excel
- Data Analysis Using Statistics
- Using Macros for Analytics
- Reflection (Summary and Review)

Modules 10-21: Mastering Power BI (10 hours)

- Introduction to Power BI
- Connecting Data Sources
- Data Modelling
- Profile the Data
- DAX Functions
- Visualizing Data
- Optimize Model Performance
- Interactivity and Analytics
- Perform Advanced Analytics
- Publishing Power BI Service
- Manage Datasets
- Creating Dashboards and Power BI Administration

Modules 22-27: SQL and Data Analytics (10 hours)

- Introduction To SQL and Normalization
- T-SQL and Data Types In TSQL
- Data Manipulation Language and Data Query Language (DQL)
- Set Operators, Joins, Sub Queries, Indexes, Views, Transaction Management

Modules 28-29: Python and Data Analysis (9 hours)

- Basics of Python
- Python Data Structures, Dictionaries & Sets
- Data Analysis - Operations with Numpy
- Pandas and Cleansing Data With Python
- Data Visualization
- Project - Case Study