

Advanced Level – Automation, Programming & Data-Driven Decision Making

Day 1: Advanced Programming & Integration

Advanced Python / Programming Concepts

- - Data types, loops, functions, and file handling
- - Working with APIs and libraries

Software Development Lifecycle (SDLC)

- - Stages, documentation, testing, and version control (Git)

Automation & Scripting

- - Automating repetitive tasks with Python/PowerShell
- - Using scripts for file, email, and data management

Hands-on / Activities

- - Build a small automation tool (e.g., file renamer or log analyzer)

Day 2: Data Analytics and Visualization

Data Processing Pipelines

- - Reading, cleaning, and transforming datasets
- - Introduction to Pandas and Excel Power Query

Visualization Techniques

- - Creating charts in Excel / Matplotlib
- - Dashboarding for decision-making

Case Study

- - Analyze real-world data to draw insights

Hands-on / Activities

- - Capstone Project: End-to-end mini project from data import to visualization