KOENIG SOLUTIONS · COURSE OUTLINE

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

2 Days	6	10	2
DURATION	MODULES	TOPICS	HANDS-ON ACTIVITIES

LEARNING OBJECTIVES

- Apply advanced concepts such as loops, functions and file handling
- Use APIs and libraries within Python programs
- Explain the stages of the software development lifecycle
- Apply version control practices using Git
- Automate repetitive tasks using Python and PowerShell scripts
- Build scripts for file, email and data management
- Process datasets by reading, cleaning and transforming them with Pandas
- Create charts and dashboards for data-driven decision-making

COURSE SYLLABUS

6 Modules, 10 Topics

DAY 1 Advanced Programming & Integration

01

Advanced Python / Programming Concepts

TOPICS

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

02

Software Development Lifecycle (SDLC)

TOPICS

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

03

Automation & Scripting

TOPICS

- 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

04

Data Processing Pipelines

TOPICS

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

05

Visualization Techniques

TOPICS

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

06

Case Study

TOPICS

Analyze real-world data to draw insights

HANDS-ON / ACTIVITIES

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

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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