

Python Automation Engineer Track

Course syllabus · Live online · Beginner to Job-ready

An automation-focused path: Python programming, advanced Python and automation, Git and a capstone automation project.

Live training	99 hours in total
Weekday batch	10 weeks · Monday to Friday, 2 hours per day (10 hours a week)
Weekend batch	13 weeks · Saturday and Sunday, 4 hours each day (8 hours a week)
Self-practice	about 68 hours in total (labs, assignments, revision)
Total effort	about 167 hours including self-practice
Mode	Live instructor-led online sessions · session recordings after each class · small batches
Trainer	Pratiksha
Batch start	Shared by our counselor
Batch timings	Weekday / weekend options, shared by our counselor
Course fee	Shared by our counselor (varies with current offers)

Who is this for?

Students, freshers, testers and IT professionals moving into automation roles.

Prerequisites

None. The track starts from Python Foundations.

What you will learn

- Everything in Python Programming Essentials
- Automate files, Excel, web and APIs
- Schedule and monitor automation scripts
- Use Git and GitHub professionally
- Deliver an end-to-end automation project

Tools and technologies

Python · pandas · requests · BeautifulSoup · pytest · Git and GitHub

Detailed syllabus

#	Module	Hours	Topics	Hands-on
1	Python Foundations (complete)	36	• Installation and tooling • Variables, data types, conditionals, loops • Lists, tuples, dictionaries, sets • Functions, lambda functions, exception handling	As per Python Foundations
2	File Handling (TXT, CSV, JSON)	5	• Reading and writing text files • Working with CSV and JSON • Context managers	Data processing scripts

#	Module	Hours	Topics	Hands-on
3	Object-Oriented Programming: Classes and Objects	6	• Classes, objects, attributes, methods • Constructors and special methods	Model real-world entities
4	Inheritance, Polymorphism and Encapsulation	6	• Inheritance and method overriding • Polymorphism • Encapsulation and access control	Class hierarchy exercise
5	Modules and Packages	3	• Creating and importing modules • Packages, pip and virtual environments	Package a small library
6	Mini Projects	4	• Planning and building a mini project • Code review and presentation	Mini project
7	Advanced Python Concepts	8	• Iterators, generators, decorators • Context managers and closures • Regular expressions • Type hints and code quality	Utility scripts with decorators and generators
8	Working with Files, Excel and PDFs	5	• Automating Excel with openpyxl/pandas • PDF and document handling • Batch file operations	Report-generation automation
9	Web Scraping and API Automation	6	• requests and HTTP basics • HTML parsing with BeautifulSoup • Calling REST APIs and handling JSON	Scrape and consolidate data
10	Email, Scheduling and System Automation	5	• Sending email with smtplib • Scheduling scripts • OS, subprocess and shell automation	Scheduled reporting script
11	Testing, Logging and Packaging	3	• Logging • unittest/pytest basics • Packaging scripts	Tested automation script
12	Automation Project	3	• Planning and building an automation project • Review and presentation	Project
13	Git and GitHub	6	• Version control fundamentals • Branching, merging, pull requests • GitHub workflow	Collaborative repo exercise
14	Capstone Automation Project	3	• Capstone planning and build • Review and presentation	Capstone
	Total live hours	99		

Projects

- Mini projects
- Automated reporting pipeline
- Capstone automation project

Assessment

Assignments, module tests and capstone evaluation.

Certification

Course completion certificate and a project portfolio.

What is included

- Live instructor-led online sessions
- Hands-on labs and assignments

- Session recordings after each class
- Doubt-solving support
- Course completion certificate
- Small interactive batches
- Unpaid internship opportunities

Our promise: we do not offer guaranteed-placement claims. We focus on building genuine skills so you are capable of clearing interviews and doing the job. Unpaid internship opportunities are available for practical exposure. Fees and batch dates vary with current offers, so please confirm them with our counselor. This syllabus is indicative and may be updated to reflect industry changes.

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