

30-Day Python Automation with Projects — Learning Plan

Week 1: Python & Automation Foundations

Day 1: Python Basics – Variables, Data Types, Loops, Functions

Day 2: File Handling – Read/Write Text, CSV, JSON

Day 3: OS Module – File & Folder Management Automation

Day 4: Error Handling & Logging for Automation Scripts

Day 5: Date/Time Automation – Scheduling & Timers

Day 6: Virtual Environments & Installing Automation Libraries

Day 7: Mini Project – Auto Backup & Rename Files

Week 2: Office & Data Automation

Day 8: Excel Automation with openpyxl – Read/Write/Update Sheets

Day 9: Advanced Excel Automation – Formulas, Charts, Formatting

Day 10: Word Document Automation with python-docx

Day 11: PDF Automation – Merge, Split, Extract Text with PyPDF2

Day 12: Email Automation – Send & Read Emails with smtplib & imaplib

Day 13: Automating Reports – Generate Weekly Summary in Excel/PDF

Day 14: Mini Project – Automated Invoice Generator

Week 3: Web & GUI Automation

Day 15: Web Scraping with requests & BeautifulSoup

Day 16: Advanced Web Scraping – Pagination & Authentication

Day 17: Browser Automation with Selenium

Day 18: API Automation – Fetch & Process Data from REST APIs

Day 19: GUI Automation with pyautogui – Mouse & Keyboard Control

Day 20: Screenshot & Screen Recording Automation

Day 21: Mini Project – Auto-Login & Data Extraction from Website

Week 4: RPA, Integration & Capstone

Day 22: Introduction to RPA – Concepts & Tools (rpaframework)

Day 23: OCR Automation with pytesseract – Extract Text from Images

Day 24: Automating Form Filling & Submission

Day 25: File Conversion Automation – CSV → Excel → PDF

Day 26: Automating WhatsApp/Telegram Messages with Python APIs

Day 27: End-to-End Workflow – Combine Web Scraping, Excel, and Email Automation

Day 28: Capstone Project – Plan & Build (Choose: Invoice Bot, Data Extractor, or Email Scheduler)

Day 29: Capstone Project – Finalize & Test

Day 30: Capstone Project – Deploy & Document for Portfolio

Deliverables by End of Month:

- Multiple Automation Scripts (Files, Excel, Web, GUI)
- OCR + RPA Workflow
- Capstone Project (Fully Built & Documented)

- GitHub Portfolio or Resume-Ready Projects