

## Task Automation with Zapier, Python, and OpenAI

#### **Duration**

5 days

#### **Overview**

This comprehensive course is tailored for computer programming professionals, offering an indepth exploration of Low-Code and No-Code Task Automation using Zapier. Participants will gain a solid understanding of Zaps, Tables, and Interfaces, and will learn how to create useful Zaps for automating common tasks and program custom Zap actions with Python. The course also provides practical tips and tricks for creating, testing, and debugging Zaps, and teaches how to store and retrieve data in Zapier Tables. Students will also learn to build web pages to capture data with Zapier Interfaces, connect third-party services to Zapier, and leverage OpenAl's Generative Al Models in Zapier's various products and services. The course also covers the Platform UI and Platform CLI for creating a private, custom Python App Integration with Zapier, understanding the three core concepts of Zapier Integrations, and employing OpenAl's Generative Al Models in Custom Python Zapier Integrations. The course concludes with real-world examples of using Zapier, Python, and OpenAl.

#### **Objectives**

- Explore Low-Code and No-Code Task Automation using Zapier
- Learn about Zaps, Tables, and Interfaces
- Create useful Zaps for Automating Common Tasks
- Program Custom Zap Actions with Python
- Tips and Tricks for Creating, Testing, and Debugging Zaps
- Store and Retrieve Data in Zapier Tables
- Build Web Pages to Capture Data with Zapier Interfaces
- Connect Third-Party Services to Zapier
- Leverage OpenAl's Generative Al Models in Zapier's various products and services
- Utilize the Platform UI and Platform CLI to create a Private Integration
- Create a Custom Python App Integration with Zapier
- Understand the Three Core Concepts of Zapier Integrations
- Employ OpenAl's Generative AI Models in Custom Python Zapier Integrations
- Real World Examples of employing Zapier, Python, and OpenAI



### **Prerequisites**

All students should be comfortable writing Python scripts using basic data types, program structures, and the standard Python library.

### **Training Materials**

All students receive comprehensive courseware covering all topics in the course. The instructor distributes courseware via GitHub. The courseware includes documentation and extensive code samples. Students practice the topics covered through challenging hands-on lab exercises.

### **Software Requirements**

Students will need a free, personal GitHub account to access the courseware. All students will need a modern web browser such as Google Chrome. The instructor will provide Zapier accounts for the students. Student machines will need a text editor, such as VS Code, the latest LTS version of Node.js, and the latest Python version. Students will need permission to install NPM packages and PyPi packages. Preconfigured student virtual machines can provided upon request.

#### **Outline**

- Task Automation
  - What is Task Automation?
  - What are Low-Code and No-Code solutions?
  - Automate Tasks with Connected Web-based Services
- Zapier
  - What is Zapier?
  - How does Zapier Automate Tasks?
  - Zapier Services
  - Low-Code and No-Code Solutions with Zapier
  - Manage Connected Apps
- Zapier Tables
  - What is a Zapier Table?
  - Pricing
  - Manage Tables
  - Define Table Columns
  - Manage Table Data
  - Export Table Data to CSV
  - Filtering a Table



- Hiding Fields
- Zapier Interfaces Overview
  - What are Zapier Interfaces?
  - Pricing
  - Manage Interfaces
  - Configure an Interface
  - Users and Limiting Access
  - Themes, Branding, and Custom Domain
  - Navigation
  - Tracking with Google Analytics
- Create Zapier Interfaces
  - Managing Pages
  - Add Components to Pages
  - Connect to Zaps
  - Connect to Tables
  - Debugging Issues
- Zaps
  - What is a Zap?
  - Pricing
  - Using AI to Create Zaps
  - Manage Zaps
  - Organize Zap Folders
  - Zap Metadata
  - Zap Notes
- Zap Triggers
  - What is a Trigger?
  - Schedule Trigger
  - Webhooks Trigger
  - Tables Trigger
  - Interfaces Trigger
  - Third-Party Triggers
- Running Zaps
  - Testing Actions
  - View Run History
  - Techniques for Debugging



- Debugging Python Code Actions
- Built-In Zap Actions (customizable; listed below are some possible options)
  - Load Shared Values
  - Incorporate Custom Python Code
  - Paths to Conditionally Execute Branches of Actions
  - Add/Update/Remove Data from Tables
  - Filter Data to Control Task Execution
  - Format Incoming Data
  - Delay Task
  - Send Emails
  - Other Zapier Actions
- Generative AI Chatbots
  - What are AI Chatbots?
  - Pricing
  - Configure Chatbots
  - Define Directives to Control Al Interaction
  - Include your data to improve the AI Chatbot
  - Run Zaps from the AI Chatbot
  - Customize the Appearance
- Real World Examples
  - Lead Generation
  - Customized AI-Powered Chatbots
  - Incident Report
- Integrate with Third Party Apps (customizable, some possible options are listed below)
  - GitHub
  - MoonClerk
  - TypeForm
  - SendGrid
  - Slack
  - Monday
  - Azure
  - Azure DevOps
  - Other Third Party Apps
- Custom Zapier Integrations with Python
  - What is a Custom Integration?



- Three Core Concepts: Authentication, Trigger, and Actions
- Public vs. Private Integration
- Platform UI vs Platform CLI
- Zapier Platform V3
- Must-Have Triggers and Actions
- Platform UI Demo
- Zapier Integration Structure
  - Dashboard
  - Build
  - Manage
  - Embed (Public Integrations Only)
- Zapier Platform CLI
  - Install the Zapier Platform CLI
  - Create a New Integration
  - Test the Integration
  - Deploy the Integration
  - Publish the Integration
  - Use JavaScript to define the App Integration
  - Call a Python API from the App Integration
- Conclusion