

Automating Real-World Tasks with Python

by Google

About this Course

In the final course, we'll tie together the concepts that you've learned up until now. You'll tackle real-world scenarios in Qwiklabs that will challenge you to use multiple skills at once.

First, we'll take a closer look at how to use external Python modules to extend your code's capabilities, and spend some time learning how to use documentation to learn a new module. For example, we'll use the Python Image Library (PIL) to create and modify images. We'll show you some simple examples of how to perform common tasks in the course material, but it will be up to you to explore the module documentation to figure out how to solve specific problems.

Next, we'll show you how to communicate with the world outside of your code! You'll use data serialization to turn in-memory objects into messages that can be sent to other programs. Your program will send messages across the network to Application Programming Interfaces (APIs) offered by other programs. For those times when your code needs to talk to a person instead of a program, you'll also learn to send email messages.

At the end of this course, you'll be able to take a description of a problem and use your skills to create a solution -- just like you would on the job. In your final capstone project, you'll be given a description of what your customer needs, and it will be up to you to create a program to do it!

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Basic Info	Course 6 of 6 in the Google IT Automation with Python Specialization
Level	Beginner
Language	English, Subtitles: Arabic, French, Uzbek, Portuguese (European), Italian, Vietnamese, German, Russian, Swedish, Burmese, Spanish, Telugu Volunteer to translate subtitles for this course
How To Pass	Pass all graded assignments to complete the course.
User Ratings	4.8 stars

Syllabus

Week 1

Manipulating Images

8 readings

1. **Reading:** Course Introduction

2. **Reading:** Welcome to the Course!

3. **Discussion Prompt:** Meet & Greet

4. **Reading:** Module 1 Introduction

5. **Discussion Prompt:** Discussion Prompt

6. **Reading:** Built-In Libraries vs. External Libraries

7. **Reading:** What is an API?


8. **Reading:** How to Make Sense of an API?

9. **Reading:** How to Use PIL for Working With Images

10. **Reading:** Project Problem Statement

11. **Discussion Prompt:** Discussion Prompt

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 **Graded:** Qwiklabs Assessment: Scale and convert images using PIL

Week 2

Interacting with Web Services

10 readings

- 1. **Reading:** Module 2 Introduction
- 2. **Reading:** Web Applications and Services
- 3. **Reading:** Data Serialization
- 4. **Reading:** Data Serialization Formats
- 5. **Reading:** More About JSON
- 6. **Reading:** The Python Requests Library
- 7. **Reading:** Useful Operations for Python Requests
- 8. **Reading:** HTTP GET and POST Methods
- 9. **Reading:** What is Django?
- 10. **Reading:** Project Problem Statement
- 11. **Discussion Prompt:** Discussion Prompt

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Graded: Qwiklabs Assessment: Process Text Files with Python Dictionaries and Upload to Running Web Service

Week 3

Automatic Output Generation

8 readings

- 1. **Reading:** Module 3 Introduction
- 2. **Discussion Prompt:** Discussion Prompt
- 3. **Reading:** Introduction to Python Email Library
- 4. **Reading:** Adding Attachments
- 5. **Reading:** Sending the Email Through an SMTP Server
- 6. **Reading:** Introduction to Generating PDFs
- 7. **Reading:** Adding Tables to our PDFs
- 8. **Reading:** Adding Graphics to our PDFs
- 9. **Reading:** Project Problem Statement
- 10. **Discussion Prompt:** Discussion Prompt

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Graded: Qwiklabs Assessment: Automatically Generate a PDF and send it by Email

Week 4

Putting It All Together

1 video, 3 readings

- 1. **Reading:** Module 4 Introduction
- 2. **Reading:** Project Problem Statement
- 3. **Reading:** How to Approach the Problem
- 4. **Discussion Prompt:** Discussion Prompt - Your Learner Journey


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5. **Ungraded Plugin:** Google IT Cert Participant Exit Survey

6. **Video:** Outtakes!


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 **Graded:** Qwiklabs Assessment: Automate updating catalog information

Week 5

Career Resources

You will engage in a series of interactive activities based on concepts you’ve explored and skills you’ve gained throughout the program. You’ll also explore job readiness skills, develop your resume, and practice interviewing for jobs.

 27 readings

1. **Reading:** Finding your Path and Perfect Role

2. **Reading:** Diversity and Inclusion

3. **Reading:** Exploring Technical Careers

4. **Reading:** Creating a Career Development Plan

5. **Reading:** Getting Promoted

6. **Reading:** Tailor your resume

7. **Reading:** Create a resume and add your new skills

8. **Discussion Prompt:** Reflection on Job Skills

9. **Reading:** Add your job experience to your resume

10. **Reading:** Writing a Cover Letter

11. **Reading:** Build a Job Search Plan

12. **Reading:** Personal Branding

13. **Reading:** IT Automation Job Opportunities

14. **Reading:** Get Started with LinkedIn

15. **Reading:** Recruiters, Headhunters, and Staffing Agencies

16. **Reading:** Getting Interviews through Networking

17. **Reading:** The Interview Process

18. **Reading:** Interviewing at Different Types of Companies

19. **Reading:** Developing an Elevator Pitch

20. **Reading:** Asking the Interviewer Questions

21. **Reading:** Answer Questions with the STAR Method

22. **Reading:** Interview Warmup

23. **Reading:** Negotiating the Contract

24. **Reading:** Social Emotional Skills

25. **Reading:** Working from home

26. **Reading:** Advanced Communication Skills

27. **Reading:** Impostor Syndrome

28. **Reading:** Recognizing Burnout

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How It Works

General

https://www.coursera.org/learn/automating-real-world-tasks-python/home/info

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How do I pass?

To earn your Certificate, you'll need to earn a passing grade on each of the required assignments—these can be quizzes, peer-graded assignments, or programming assignments. Videos, readings, and practice exercises are there to help you prepare for the graded assignments.

What do start dates and end dates mean?

Once you enroll, you'll have access to all videos, readings, quizzes, and programming assignments (if applicable). If you choose to explore the content without purchasing, you may not be able to access certain assignments. If you don't finish all graded assignments before the end of the session, you can reset your deadlines. Your progress will be saved and you'll be able to pick up where you left off.

What are due dates? Is there a penalty for submitting my work after a due date?

Within a course, there are suggested due dates to help you manage your schedule and keep work from piling up. Quizzes and programming assignments can be submitted late without consequence. However, it is possible that you won't receive a grade if you submit your peer-graded assignment too late because classmates usually review assignment within three days of the assignment deadline.

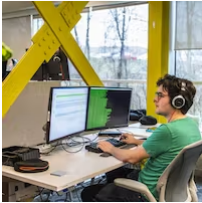
Can I re-attempt an assignment?

Yes. If you want to improve your grade, you can always try again. If you're re-attempting a peer-graded assignment, re-submit your work as soon as you can to make sure there's enough time for your classmates to review your work. In some cases you may need to wait before re-submitting a programming assignment or quiz. We encourage you to review learning material during this delay.

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Course 6 of Specialization

Learn in-demand skills like Python, Git, and IT automation to advance your career



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Splunk Inc.



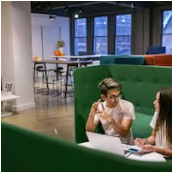
Using Python to Interact with the Operating System

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Play It Safe: Manage Security Risks

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Troubleshooting and Debugging Techniques

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