tripleten

tripleten.com

Quality Assurance Program

5 months

About the program

The Quality Assurance Program by TripleTen is a **5-month** course designed for people with little to no knowledge of software testing.

What you'll learn

The program aims to equip you with all the skills needed to land a job in the tech industry. You'll learn the fundamentals of the QA profession, and by the end, be able to perform tests in a structured and efficient way. You'll learn how to test a variety of products, such as web applications, web APIs, and mobile applications. The program will equip you with a variety of technical skills, with introductions to databases, file systems, the console, web protocols, Python, and much more.

Soft skills are a must-have

In addition to the technical skills you need to get started in the tech industry, the program also aims to teach the soft skills required for a successful career. You'll learn broadly applicable skills, such as time management, goal setting, teamwork, and more. The program covers both soft skills that are specific to the tech industry, such as how to work with documentation, and soft skills that **will** boost your career by building your online presence.

Career-focused lessons

Our ultimate goal is to help you land your dream job. That's why this program also features a variety of career-focused lessons and sub-courses, focused entirely on enhancing your employment prospects.

Course Structure

Your journey will be structured as a series of sprints, grouped into thematic modules. Each sprint will have a particular set of learning outcomes, reinforced through quizzes and tasks. At the end of the sprint, you will take the skills you've learned and combine them with your existing skills to work on a project that will be assessed by industry experts.

Timeline

We provide some rough time estimates to help you plan and manage your time, and we recommend spending around 15-20 hours per week studying. However, we understand that everyone has different commitments and people learn at different speeds. We also understand you may need a break at times, so we have some suggested breaks scheduled in.

Testing Essentials: A Preview of the Quality Assurance Bootcamp

- Are you curious about a career in tech?
- Do you consider yourself an aspiring QA engineer?
- Unsure which career path to take?

Well, our special preview of the QA program is the perfect place to start! Here, you'll get a better look at what QA engineering is all about. You'll learn about bugs and bug reports, dip into test cases, and even flex your new skills with a project. This preview covers a number of key topics and is recommended for all students before starting the full program.

Module 1:
QA as a Profession

QA engineers play a vital role in the software industry. This module will teach you the fundamental aspects of QA, give you an overview of the software industry, and introduce you to the techniques used for designing and documenting tests. Since test design and documentation are core components of the profession, you'll be introduced to them early on and then build on that knowledge in the following sprints.

Sprint 1. Testing Fundamentals. 2 weeks

In your first sprint, you'll learn exactly what it means to be a QA engineer. You'll learn about the Software Development Life Cycle (SDLC) and how you will play a part in it. Then, you'll take a detailed look at different types of testing before we introduce you to exploratory testing. You'll finish the sprint by completing your first project on the main program!

Learning Outcomes:

- Understand the SDLC and how a QA engineer fits into it
- Name the various types of testing
- Perform exploratory testing

Project:

- Urban Routes: Exploratory Testing

Sprint 2. Test Design and Documentation. 2 weeks

After learning about your role as a QA engineer, you'll move on to cover one of the most crucial aspects of the job: the analysis and decomposition of product requirements. This sprint takes you through the entire software testing process, known as the STLC, and places you center stage. You'll use various techniques to design and optimize your tests before putting your knowledge to use in your second project.

Learning Outcomes:

- Analyze and decompose product requirements
- Design tests
- Read and write test documents

Project:

- Urban Routes: Test Design

Module 2: Testing Across Platforms

Every craft has its own tools and techniques, and QA is no different! In this module, you'll build upon what you've learned previously and find out how to test various platforms. Each platform has its own quirks and peculiarities, as you'll soon discover as you test web apps, mobile apps, web APIs, and SQL databases. Each sprint covers a particular platform and gives you all the background knowledge you'll need to understand the architecture of that platform.

Sprint 3. Testing Web Applications. 2 weeks

This is your first deep dive into testing. This sprint explores the structure of web applications by examining the front end and back end. You'll learn all about client-server architecture, technologies such as HTTP, and how to use related tools such as Chrome DevTools.

Learning Outcomes:

- Understand the structure of web applications and client-server architecture
- Use DevTools to examine a page and HTTP requests

Project:

- Urban Routes: Web App

Sprint 4. APIs. 2 weeks

Application Programming Interfaces, or APIs, are a crucial but often unseen part of Internet infrastructure. In this sprint, you'll learn how to use Postman to test an API. You'll also learn what an API actually is, as well as everything you'll need in order to understand APIs, such as REST architecture, JSON, and the HTTP request and response structure.

Learning Outcomes:

- Be familiar with Postman core functionality
- Understand API architecture and technologies
- Validate and test APIs using Postman

Project:

- Urban Grocers API

Sprint 5. Understanding Databases. 2 weeks

This sprint focuses on databases. You'll start by getting an overview of relational databases and then move on to learning how to test them. You'll learn about different types of SQL queries, from simple search queries to more complex queries, such as joins and table merges. You'll also learn how to use the console to connect to remote servers and how to navigate around system directories.

Learning Outcomes:

- Understand database testing principles
- Write SQL search queries
- Modify databases with different types of joins

Project:

- Database Testing

Sprint 6. Testing Mobile Applications. 2 weeks

This sprint is all about mobile applications. Here you'll learn how to use the Android Studio emulator, practice setting logs, and become familiar with the intricacies of testing on a real device.

Learning Outcomes:

- Understand mobile testing
- Use Android Studio to find bugs
- Set and remove logs

Project:

- Testing an Android App

Module 3: Scripting and Automation

Finding bugs in applications can be hard work. QA Engineers often use automation to lighten the workload and make the process more efficient. This sprint teaches you how to use special automation frameworks such as Selenium Webdriver. You'll learn the basics of Python, which is useful for understanding the apps you'll test and for writing tests on your own.

Sprint 7. Python. 3 weeks

This sprint introduces you to one of the most important programming languages in the world: Python. You'll learn the fundamentals of the language, discover the various tools used with Python (such as PyCharm), and learn how to use GitHub to backup your code.

Learning Outcomes:

- Understand programming logic (e.g., statements and loops)
- Be familiar with different data structures
- Write test scripts

Project:

- Python Foundations

Sprint 8. Browser Automation. 3 weeks

Finding bugs in an application manually can take a lot of time. Fortunately, QA engineers can use automation to lighten the workload and make the process more efficient. This sprint teaches you how to use a commonly-used testing tool called Selenium.

Learning Outcomes:

- Understand automation and the testing pyramid
- Become familiar with automation frameworks
- Use Selenium Webdriver to test a web application

Project:

- Automated Testing with Python and Selenium

Module 4: Applied Testing: Final Project

Take everything you've learned throughout the course and apply it to a professional-level project, just as you would in a real-world work environment.

Sprint 9. Applied Testing: Final Project. 2 weeks

The final project gives you the chance to put all of your learning into practice as you test a mobile app, a web app, and an API. You'll design and perform tests, then submit bug reports with your findings.

Learning Outcomes:

- N/A for the final project

tripleten

Visit our website

Career Preparation

From day one

Access career-focused lessons that strengthen both:

- **Hard skills:** for job applications
- **Soft skills:** networking, communication, self-promotion and interview techniques

Midway through

Partner with a career coach to:

- Develop a personalized job search strategy
- Perfect your resume, LinkedIn profile, and portfolio
- Practice interview & networking techniques in group and individual sessions

As you progress

- Participate in Code Jams—team competitions to apply your skills
- Complete an Externship—gain real-world business experience (you'll learn more as you advance!)

After graduation

Enter the job search phase with support from a Placement Coordinator:

- Regular check-ins to keep you on track
- Feedback to improve applications and networking
- Help connecting with recruiters and hiring managers
- AI-powered job search platform to manage applications and track progress

Learn the job.

✨ Get the job. ✨

This syllabus is for illustrative purposes only. We continuously strive for excellence and keep our content in sync with the job market. Due to our constant updates, there may be minor differences between this syllabus and the program. If you have any questions, feel free to reach out to us. We're always happy to hear from you!