# QA Tester Program

## Syllabus

Online  Part-Time  5 months

Job-Ready Skills  9 projects  Career Coaching

No Tech Background needed  20 hours per week
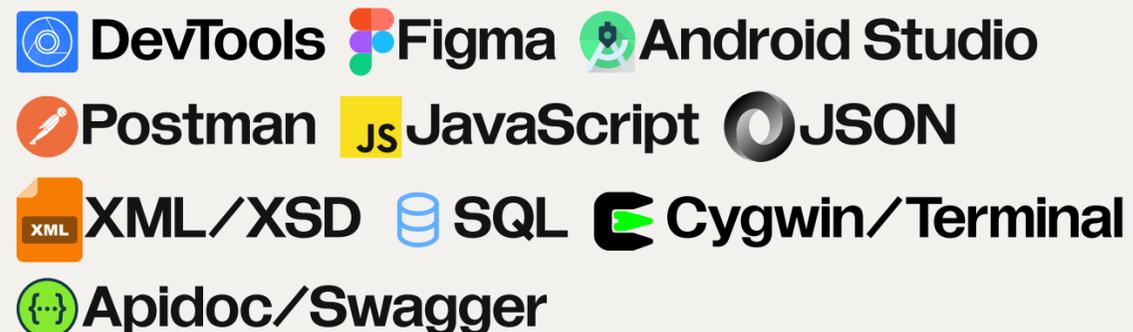
# Contents

# About the program

**5 months**

The QA Tester 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, JavaScript, 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.

**Skillset you'll get:**

DevTools  Figma  Android Studio
Postman  JavaScript  JSON
XML/XSD  SQL  Cygwin/Terminal
Apidoc/Swagger

## 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 and Timeline

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.

We provide some rough time estimates to help you plan and manage your time, and we recommend spending around 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.

- Each sprint lasts 2-3 weeks
- One-week break recommended after each module

## Module 1

Sprint 1
↓
Project 1

Sprint 2
↓
Project 2

## Module 2

Sprint 3
↓
Project 3

Sprint 4
↓
Project 4

Sprint 5
↓
Project 5

Sprint 6
↓
Project 6

# Module 1:
# QA as a Profession

QA Testers 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

In your first sprint, you'll learn exactly what it means to be a QA Tester. 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 very first testing project!

**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

After learning about your role as a QA Tester, you'll move on to cover one of the most crucial aspects of the job: the analysis and decomposition of product requirements. The sprint then shows you how to write reports on test results, find errors in web services, and understand their structure. 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

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 DevTools and Charles.

**Learning Outcomes:**
- Understand the structure of web applications and client-server architecture
- Use DevTools to examine a page
- Use Charles to examine HTTP requests

**Project:**
- Urban Routes: Web App

## Sprint 4. APIs

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

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

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 Testers 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 WebdriverIO. You'll learn the basics of JavaScript, which is useful for understanding the apps you'll test and for writing scripts on your own.

# 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 7. JavaScript

This sprint gives you an introduction to one of the most important scripting languages in the world, JavaScript. By learning the basics of Javascript, you'll have foundational knowledge in a programming language, enabling you to better understand the apps you're testing. In addition, you will be able to write your own scripts in JavaScript, which will give you extra flexibility with automation.

**Learning Outcomes:**
- Understand programming logic (e.g., statements and loops)
- Be familiar with different data structures
- Write basic scripts

**Project:**
- Javascript Foundations

### Sprint 8. Test Automation

This sprint teaches what you need to know about automation. You'll start by learning about the test pyramid and different types of automation. You'll then put your knowledge of Javascript and Node.js into practice again, as you learn about special testing frameworks that build on top of them.

**Learning Outcomes:**
- Understand automation and the testing pyramid
- Become familiar with automation frameworks
- Use WebdriverIO to test a web application

**Project:**
- Automated Testing with Node.js and WebdriverIO

### Sprint 9. Applied Testing: Final Project

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

# Employment Preparation

At TripleTen, we know that learning the technical skills you need for a job is only one piece of the employment puzzle. That's why we offer a range of courses to help you land your dream job.

## Career Prep Course

🕐 10-15 hours in total, after Sprint 3

If you want some guidance on landing your dream job, Career Prep has all the information you need. First, you'll cover some of the necessary groundwork before you can start applying for jobs. This includes creating a portfolio, building an online presence via LinkedIn, working on your job search strategy, and growing your professional network. Once that's done, you'll focus on the different stages of the job application process, perfecting your resume and cover letters, acing interviews, and masterfully negotiating offers. Career Prep is included with the main program and is unlocked beginning from Sprint 3.

## Career Accelerator

🕐 After graduation. Typically 3-4 months

This part starts after graduation and offers ongoing individual and group career coaching sessions with our team, and industry professionals, and access to our supportive alumni community. You will also prepare HR and technical mock interviews with our career coach. This part takes 4 weeks of webinars, 2 weeks of 1on1 simulations and lasts as a job search support not longer that 6 months after graduation.

# 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!