

Overview

The goal of the QA Engineer program is to provide learners with all the necessary skills and experience that they need to start working in the position of Junior manual QA Engineer. The program is designed for beginners with little or no previous IT experience who want to start their careers in tech.

Learning time: 22 lessons + 22 practical tasks (homework)

Support: Experienced mentor will be guiding you and answering any questions

Course portfolio: 8 practical testing projects in the portfolio that could be demonstrated to the potential employer.

Syllabus

Block 1. Testing fundamentals

1. What is testing? Tester tasks. Overview of software requirements. Test documentation: checklist, bug report.
2. Test documentation: the severity and priority of the bug. Bug report attributes. Test cases and their statuses. Test report
3. Types of testing. Testing levels.
4. Test design. Part 1. Analysis of software requirements. Requirements decomposition. Visualizing requirements with MindMap. Test design principles.
5. Test design. Part 2. Test Design Techniques - Equivalence Classes and Boundary Values. Decision table.

Block 2. Testing web applications

6. Principles of testing GUI elements. Web forms. Validation on front and backend.
7. Cross-platform and cross-browser testing. Responsive web design.
8. Web applications. Client-server architecture. URL. HTTP. Basics of DevTools.

Block 3. Testing mobile applications and API

9. API testing principles based on the REST architectural style. Introduction to the JSON format. Overview of API documentation using Swagger
10. Intermediate testing
11. API based on the SOAP protocol. Structure and elements of XML files. XSD schema.

12. Introduction to mobile testing. Types of mobile applications. Mobile device settings. Why do we need emulators, simulators, and mobile farms. Android Studio.

Block 4. Database and SQL basics. Linux Console

13. Database basics and introduction to SQL. The practice of compiling SQL queries on the simulator.

14. SQL part 2. Sorting and logical operators. Built-in functions. The practice of compiling SQL queries on the simulator.

15. SQL part 3. Creating new records. Changing and deleting data. Subqueries and joining tables with JOIN. The practice of compiling SQL queries on the simulator.

16. Linux console basics - commands. Analysing logs

17. Introduction to bug tracker, issue tracking system. Fundamentals of team work and QA processes.

18. Software life cycle. Test plan. Test Metrics

Block 5. Simulator and fundamentals of test automation

19. Front-end (UI) testing with the simulator

20. Backend testing (REST API) using simulator - part one

21. Backend testing (REST API) using simulator - part two

22. Integration tests and mobile app testing using simulator

23. Basics of test automation using Postman. Introduction to CI/CD.

24. Final testing