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de IT

Testing Automation using Java - Curriculum

Școala Informală de IT

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Web App Fundamentals:

- HTML/HTTP basics

- DOM introduction

- Web basics: client-server, cookies, session, types of requests, web servers, and more

Testing concepts:

- Testing types and the relationship to automation

- Test cases practices

Intro in automation:

- What is automation? Why automate? How to automate?

- Web / native automation practices and approach

- Backend / api

- Some of the basic tools used

- Automation principles

- Advantages vs. disadvantages

Environment setup:

- Programming language (Java)
- Integrated development environment (IntelliJ IDEA)
- Version control (Git)
- Build automation (Maven)

OOP / programming intro:

- Basic concepts
- Coding standards, naming conventions

Automation framework:

- Concept, structure, tools, terminology
- Use existing framework; run existing tests
- Compare the manual tests vs. automated tests
- Debug code and tests
- Update existing tests
- Create/add new test scenarios
- Read / investigate results
- Run tests on different browsers

Selenium Webdriver:

- Web elements identification
- Write locators CSS and XPath
- Webdriver commands
- Handling browser cookies
- Taking screenshots

Web automation (end to end) project:

- Create an automation project from scratch
- Create and use framework primitives
- Use of page object model
- Structure code, tests and results
- Advanced reporting (reporting tools, custom report)

Enhancements:

- Direct HTTP requests
- Database usage (concepts, sql commands, CRUD operations in code)
- Data driven test execution

Advanced:

- CI and automated builds (Jenkins)