

Acceptance Test Driven Development (ATDD), Test Driven Development (TDD)
- in TypeScript and Angular

ATDD - WEB TEST AUTOMATION WORKSHOP

This is a 2-day interactive and predominantly hands-on technically focused course on web test automation. You will learn how test automation improves the workflow of the entire **Acceptance Test Driven Development** (ATDD) development process. This course introduces **cucumber.js** and **TypeScript**, with tests running in a homogeneous development environment, as well as the techniques necessary to write tests that are robust and easy to maintain.

TOPICS COVERED

- Leveraging scenarios to obtain a shared understanding of the acceptance criteria
- Automating and verifying acceptance tests through a browser
- Exploring techniques that helps organize your tests

LEARNING OUTCOMES

Participants will be able to...

- Automate acceptance criteria for a website using **cucumber.js**, **TypeScript** and the **Chrome** web browser
- Understanding how test automation supports verifying existing functionality, bug remediation, and new feature development
- Understand testing patterns to keep tests reusable and organized

TARGET AUDIENCE

We recommend this course for all team members, including but not limited to the following:

- Quality Assurance / Test Automation (Technical)
- Engineers / Developers
- Product & Design

PARTICIPANT REQUIREMENTS

- Recommended experience with a computer programming language
- Windows/Mac laptop manufactured after 2015 capable of running, and configured to support, hardware accelerated virtual machines with at least 8GB of free space on the laptop hard drive and local admin user account that can install software onto the laptop

SCHEDULE - DAY 1 & 2

- | | |
|---------------------|------------|
| • 08:30am - 09:00am | Breakfast |
| • 09:00am - 12:00pm | Class Time |
| • 12:00pm - 01:00pm | Lunch |
| • 01:00pm - 04:30pm | Class Time |

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TDD TRAINING

This 3-day course covers the fundamentals of Test Driven Development with an emphasis on learning the skills and techniques necessary to perform this discipline in the real world. Participants will begin with simple exercises and migrate to advanced techniques for building applications designed for testing, using stubs and mocks. Participants will also learn the benefits of paired programming practices. Additionally, the course will address the issues associated with working in legacy code.

TOPICS COVERED

- The Red, Green, Refactor pattern
- Using Mocks, Stubs, Fakes, Doubles, and other testing patterns
- Building code that is testable
- How to refactor existing code to make it testable
- Test Driven Development in Angular

LEARNING OUTCOMES

Participants will be able to...

- Appreciate the benefit of writing clean, maintainable code
- Identify the relationship between software quality and TDD
- Recognize that TDD promotes safe, rapid changes to existing code through immediate feedback
- Understand the appropriate time to use mocks and stubs
- Identify good and bad testing patterns
- Identify code smells for identifying non-testable code

Participants will become familiar with:

- Writing tests first
- Multiple paired testing techniques
- How to modify software design using a test-first approach

TARGET AUDIENCE

We recommend this course for attendees with a technical background, including but not limited to the following:

- Quality Assurance / Test Automation (Technical)
- Engineers / Developers

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