

Fundamentals of Agile Test Automation—ICAgile Certification (ICP-ATA)



- Explore strategies for integrating automation within the agile lifecycle
- Understand how to collaborate with business analysts, developers, and customers to integrate automation into your team's workflow
- Work without the need of separate, independent test automation teams
- Explore how complex non-functional testing can be automated in a sprint

Most agile teams deliver shippable software at the end of each sprint, but some agile teams ship working software every day. Confidence at this speed can be achieved with the help of automated tests. Explore the many ways automation supports agile testing activities in this introductory course.

Learn about automation techniques to improve regression testing, story and feature testing, and continuous integration. Test automation purpose, theory, and principles are reviewed, as well as how test automation is implemented in diverse organizations.

This course provides real-world, vendor-neutral examples of agile test automation approaches and tools. Examples of automated tests for Test Driven Development (TDD), Acceptance Test Driven Development (ATDD), and Behavior Driven Development (BDD) will be given, in addition to example test descriptions, source code samples, and example test scripts.

Who Should Attend

This course is for all agile team members and those involved in the process of building, testing, and deploying software. Product owners, managers, and other business leaders will gain important insights into the benefits and trade-offs related to agile test automation. No specific prerequisites are assumed, and any technical concepts will be explained; however, attendees are expected to have some agile knowledge or experience. Technical practitioners and those currently involved in automation should consider [Agile Test Automation for Practitioners](#) [1].

[Take Our Survey To Determine Which Course Is Right For You](#) [2]

ICAgile Certification

Successful attendees of this course are awarded the ICAgile Certified Professional in Agile Test Automation (ICP-ATA). Additionally, certified attendees will be listed on the ICAgile website, indicating their designation. Coveros recommends [From Fragile to Agile: Practical Approaches to Adopting Agile](#) [3] and [Agile Tester Certification](#) [4] for those seeking the ICP-ATA designation. *The ICAgile certification fee is included with your registration for your convenience.*

About the ICAgile

The International Consortium for Agile's goal is to foster thinking and learning around agile methods, skills, and tools. The ICAgile, working with experts and organizations across agile development specialties, has captured specific learning objectives for the different agile development paths and put them on the learning roadmap. For more information visit www.icagile.com [5].

Course Outline

Introduction to test automation

What it is

Risks

How testing creates value

How automated testing creates value

Agile development and testing

Recap on agile manifesto

Agile testing quadrants

Team-based testing

Test automation techniques

Frameworks overview

Unit testing

Unit test exercise

UI testing

Kantu exercise

UI testing exercise

API testing

API exercise

System and acceptance tests

Exercises

Intro to Cucumber

Cucumber in action

A new scenario

Adding a feature

Database testing and managing test data

Database exercises

Non-functional test automation

Test automation strategy

What to automate

Best practices

Integration into CI

Continuous integration exercise

Static code analysis

Static analysis exercise

Dynamic code analysis

Successful code analysis implementation

Test orbits

Test orbit exercise

Planning for automation

Automation tool selection

Staffing strategies

Planning - illustrate the system

Why does automation fail?