

Fundamentals of Test Automation—ICAgile Certification



- Take a deeper dive into practical automation implementation
- Hands-on practices with a wide variety of automation techniques
- Learn the types of tests that can be automated
- Learn how automation fits into the agile software development and testing approach

Build Solid Test Automation the Right Way

One of the tenets of being successful in test automation is to build solid engineering practices at the beginning; and this course is designed to help you do just that. This course covers everything from introducing the basics of test automation - including definitions, benefits and misconceptions, to planning for automation in an agile environment. Along the way we'll explain the various automation test types and techniques including UI, API, Database, Unit, and Functional vs Non-Functional testing. You'll also learn how to select the right approaches to best suit the needs of your organization..

Using a hands-on approach, our experienced instructors will illustrate proper techniques for building maintainable automated tests using frameworks. We will also cover Behavior-Driven Testing (BDD) using Cucumber.

This course also teaches you how to develop your own test automation strategy and get the most out of your tests, as well as integrating them into a continuous integration (CI) process.

Who Should Attend

This course is ideal for those in developer and testing roles who need to learn automation or improve their existing automation knowledge. The course features hands on exercises to illustrate the topics discussed and provides students an opportunity to learn by doing. A working laptop with proper administrative privileges is required for this class.

Laptop Required

This class involves hands-on activities using sample software to better facilitate learning. Each student should bring a laptop with a remote desktop protocol (RDP) client preinstalled. Connection specifics and credentials will be supplied during class. Please verify permissions with your IT Admin before class. If you or your Admin have questions about the specific applications involved, contact our [Client Support team](#) [1].

ICAgile Certification

Successful attendees of this course are awarded the ICAgile Certified Professional in Agile Test Automation (ICP-ATA). Additionally, the certified attendees will be listed on the ICAgile website, indicating their designation. Coveros recommends [From Fragile to Agile: Practical Approaches to Adopting Agile](#)[2] and [Agile Tester Certification](#) [3] 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 [4].

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?