

- Take a deeper dive into practical automation implementation
- Get hands-on practice 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

One of the tenets of being successful in test automation is to employ solid engineering practices at the beginning. This course is designed to help you do just that, covering topics from the basics of test automation—definitions, benefits, and misconceptions—to planning for automation in an agile environment. Along the way various automation test types and techniques are covered, including UI, API, Database, Unit, and Functional vs. Non-Functional testing.

Learn how to select the right approaches to best suit the needs of your organization. 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.

Using a hands-on approach, participants explore proper techniques for building maintainable automated tests using frameworks. A number of practical exercises are built in, including Behavior-Driven Testing (BDD) using Cucumber.

## 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. Those that are new to agile development or have never built automation should consider [Fundamentals of Agile Test Automation](#)[1].

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

## 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](#) [3].

## 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](#)[4] and [Agile Tester Certification](#)[5] 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](http://www.icagile.com) [6].

## Course Outline

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### 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?