

# Introduction to Test Automation Essentials

---

*Duration: 1 Day(s)*

## Course Overview

---

Introduction to Test Automation is a one-day, hands-on event designed to provide participants with the skills required to develop a custom test automation plan and architecture for their organization. Throughout the course, students will examine and work through various practical examples, learning how to create an integrated test automation plan and develop a test automation architecture. Participants will also learn about the possible real-world challenges they may face while trying to accomplish their goals, exploring the practical positive aspects of engaging their technical team, along with the possible frustrations of experiencing too much isolation between test automators and test designers.

Introduction to Test Automation is a one-day, hands-on event designed to equip participants with the essential skills required to develop a custom test automation plan and architecture tailored to their organization. Throughout this course, participants will work through various practical examples, gaining hands-on experience in creating an integrated test automation plan and developing a robust test automation architecture.

Participants will delve into the real-world challenges they may encounter, exploring the benefits of engaging their technical team and understanding the potential frustrations of isolation between test automators and test designers. This course aims to bridge these gaps by fostering collaboration and communication within the team.

While several test automation frameworks will be presented and discussed, the primary focus of this course is to help participants assess their current automation state, identify gaps, and develop a comprehensive automation plan and integrated tool architecture. Attendees will explore and receive templates and resources to kickstart their journey towards a more strategic and effective automation approach.

Review this course online at <https://www.alta3.com/courses/TT3511>

## Objectives

---

- Develop a custom test automation plan tailored to your organization.
- Create an integrated test automation architecture.
- Assess and enhance your current automation capabilities.
- Engage collaboratively with technical teams to overcome automation challenges.

## Who Should Attend

---

- Test Automation Engineers
- Test Managers
- Test Leads
- Test Architects
- Developers

## Prerequisites

---

To ensure a smooth learning experience and maximize the benefits of attending this course, you should have the following prerequisite skills:

A general awareness of how software is developed, including stages from requirements gathering to deployment, to appreciate the context of where BDD, TDD, and Unit Testing fit in.

A basic understanding of what software testing entails, including the purpose and types of tests, to build upon with more specific methodologies.

## Course Outline

---

### Basics of Test Automation

1. Understanding the basics of test automation
2. Key components and types of test automation
3. Benefits and limitations of automation

### The Compelling Business Need for Automation

4. The role of automation in accelerating time-to-market
5. Cost-efficiency and quality improvement through automation
6. Strategic business advantages of implementing automation

### Automation Challenges and Requirements

7. Common obstacles in test automation implementation
8. Key requirements for successful test automation
9. Balancing automation with manual testing efforts

### Foundational Material for Your Automation Plan

10. Essential templates and examples for getting started
11. Key questions to define your automation needs
12. Resources for building a solid automation foundation

### Automation Plan Vision and Strategy

13. Crafting a clear vision and strategic approach

- 14. Defining objectives and key results (OKRs) for automation
- 15. Engaging stakeholders and gaining buy-in

## **What to Automate**

- 16. Identifying test cases suitable for automation
- 17. Prioritizing automation efforts based on ROI
- 18. Understanding the test automation pyramid

## **When to Start Automation**

- 19. Indicators for the right time to automate
- 20. Balancing early and late-stage automation
- 21. Strategies for phased automation implementation

## **Test Automation Platforms and Tools**

- 22. Overview of popular test automation tools and frameworks
- 23. Criteria for selecting the right tools for your needs
- 24. Integrating tools into your existing ecosystem

## **Test Automation in CI/CD**

- 25. Role of automation in Continuous Integration and Continuous Deployment
- 26. Setting up automated tests within CI/CD pipelines
- 27. Best practices for maintaining automation in CI/CD

## **Test Automation Management**

- 28. Managing test automation projects and teams
- 29. Tracking progress and measuring success
- 30. Addressing challenges in automation management

## **Deeper Dive: Tools & Frameworks**

- 31. In-depth look at advanced tools and frameworks
- 32. Comparing features and capabilities of various tools
- 33. Integrating multiple tools for a comprehensive approach

## **Bonus Chapters: Testing for Mobile; Testing & APIs**

- 34. Specific challenges and strategies for mobile test automation
- 35. Tools and best practices for API testing
- 36. Ensuring seamless integration and testing across platforms