



# Learning Objectives of CP-MAT

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“Knowledge with experience is power; certification is just a by-product”

## What is CP-MAT?

CP-MAT stands for “Certified Practitioner - Manual Agile Testing” certification prepared and honored by “Agile Testing Alliance”

If you are a testing professional and already are part of QA/Testing teams, you can take this program.

The course is applicable for all roles and not just “testers”. Knowledge, experience & certification is consciously designed to focus on “agile testing” and **not** on “agile testers”.

This program is hands and practical program and takes you through an entire agile case study where focus would be on helping you find and evolve your agile testing mindset.

## How is it useful?

CP-MAT helps you get into the testing mindset in an agile project. It helps you utilize your testing experience in learning hands on Agile testing. It instills “Quality is everyone’s responsibility” concept in the minds of the participants. It is useful for an experienced tester to apply the “regular” testing techniques to an Agile project. The concepts of Agile process with context to testing are covered during the course along with the associated best practices for Testing in an Agile Project. The course takes a hands-on approach while covering Release Planning, User Stories Review, Estimation, Sprint Planning, Agile Test Strategy, Testing debt, Testing DoD, Test Reporting and Metrics. This also



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introduces the participants to the concepts of TDD, ATDD, BDD and Continuous Integration (which are covered in detailed in the next level course CP-AAT). You will get a ready to use Agile Testing Tool Kit which will aid you not only in Agile Projects but making you become Agile in any of your testing projects.

### **Am I Eligible?**

Anyone having more than 18 months of experience in agile or testing is eligible for CP-BAT. If you have already done CP-BAT or any other testing or agile program then you automatically qualify for this course provided you have 18 months of experience.

### **Duration?**

CP-MAT is designed specifically for corporates and working professionals alike. If you are a corporate you can opt for either 4 half days course or 2 full days course. Examination has to be taken within 14 working days of the training being completed. Exam is online and has a theory and practical parts.



# Learning Objectives of CP-MAT:

## 1. Agile Fundamentals

### 1.1. Quick Overview on Agile - Agile history, manifesto & principles

Understand the basics of Agile and help everyone get onto one page about why agile and benefits of agile over traditional development. Reinforce the concepts of agile manifesto and principles. Experience agility in action.

### 1.2. Understand what agile is and what is not. Learn about Scrum

Learn about Scrum basics, important artifacts, meetings, roles. Learn what is a Release.

## 2. Agile Testing

### 2.1. What is Agile Testing?

Justify the need of Agile Testing and why testing should be treated differently or not in an Agile project.

- Apply the classic Testing Strategy for a case study and then understanding the difference that an agile project would throw
- Learn and discuss the challenges that agile projects bring in our classical testing thinking

### 2.2. Agile Testing mindset

It is not just the tricks and techniques that need to be learned in order to do testing in an Agile project, it calls for overall shift in the mindset. Learn, how whole team approach is important and how testers can contribute in agile projects.

### 2.3. Agile Testing Principles

Learn agile testing principles and values.

## 3. User Stories and Role of Agile Testers.

Learn user stories and understand the role of Testers in reviewing and collaborating for user stories. To be able to size and estimate the user stories by practicing agile estimation techniques.

## 4. Agile Testing Iteration Zero

### 4.1. Test Strategy and Release Planning

Introduction on overall test strategy for an Agile Project and introducing the tool kit which can be modified to suit the specific agile project needs. Give out ready to use templates and ideas which the participants would need to use for the sprints further



down the releases. Understand the activities that needs to be taken care off during the iteration Zero

Learn the importance of Test Preparation, Test Environment, Test Data, Tools, Regression Strategy, Training, User Story elaboration, Metrics for the overall testing strategy in an agile project and the activities which can be addressed before the first real iteration or sprint kicks over.

Learn the importance of defect tracking from an agile testing perspective

#### 4.2. Test Metrics

Identifying important and relevant testing metrics for an Agile Project. Introducing the team to the Agile Testing Metric Tool kit. Understand how to keep track of agile testing as the iterations proceed. To be able to visually share the project status using tools like Task Board and its implementation for Testing tasks before the iteration starts, during the iteration and after the iterations gets over.

### 5. Optimized Test Design and Test execution

Learn the importance of just enough documentation. Learn how the Test design technique needs to be optimized in an Agile project. Learn the importance for the Agile testers to do more in less time. Learn some tools and techniques for become agile tester in agile projects or even in non-agile projects.

- Learn Exploratory Testing, context driven testing and some templates from the MAT Tool Kit
- Learn Orthogonal array and Pair Wise Test Design Technique
- Learn the importance of Buddy Testing / Pairing in general
- Learning scenario based testing
- Learning non-GUI based testing concepts

### 6. Agile testing - Practice Iteration 1

Practice all agile and testing fundamentals throughout the course on a case study of a dummy project. Experience the theory of the previous sections and explore the concepts first hand while testing on an Agile project Sprint/Drop Case study. Experience practical agile testing by creating minimalistic test plan, test cases and test results. This will be done through an agile project setup.

Implement the tool kit for Iteration 1 by doing the following

- Test Plan Creation
- Test Design and Test Scenario Creation



- Test Execution during the iteration
- Retrospective

## 7. Test Automation and Regression Testing

### 7.1. Why Automation?

Automation is done on traditional projects as well, what's different in an Agile Automation Strategy?

### 7.2. Continuous Integration

Learn what is continuous Integration and the importance of continuous integration for Agile Projects and Test Automation

### 7.3. Continuous Integration Pipeline

Demo of CI Pipeline to help understand the entire CI concept.

## 8. Agile Testing - Practice Iteration 2

Apply the learning from Iteration 1 to get better at the Iteration two of the case study

Implement the tool kit for Iteration 2 by doing the following

- Test Plan Creation
- Test Design and Test Scenario Creation
- Test Execution during the iteration
- Retrospective

## 9. Agile testing - Other Facets

### 9.1. Development Driven Tests

Learn the what is TDD and Unit Testing and their importance for the agile tester

### 9.2. ATDD and BDD

Learn how the Test Driven development concepts has evolved into ATDD (Acceptance Test Driven Development) and its relevance for Agile Testing. Also Learn what is Behavior driven development. How ATDD and BDD help in testing from business perspective

### 9.3. Non-functional Testing

Understand how the other types of testing, specially the non-functional testing can be carried out during an agile project. When should the Non-functional testing be done and its impact on the Agile life Cycle. Learn the importance of Test Hardening Iteration.

### 9.4. Why AC are not same as DoD

Understand DoD - Definition of Done. Establish the concepts of Acceptance Criteria of User Story, how to extract Acceptance Criteria. Understand why User Story is not done even after the acceptance criteria are met. Understand how to test acceptance criteria and more so that DoD is met.



### **9.5. Managing Testing Debt**

Understanding what is debt in Agile projects and how the testing debts gets accumulated over a period of time. Also understand how to take care of Testing debts.

### **9.6. Refactoring**

Understanding what is Refactoring and its relevance from a Testing perspective

### **9.7. Agile for a large and distributed teams**

Understand organization and logistics challenges. Understanding how Agile can be implemented for large and distributed teams.

### **9.8. Agile for Independent Testing organizations**

Understanding how can Independent testing organizations adapt to the agile ways and use this as an advantage for winning testing projects