



## SOFTWARE TESTING ESSENTIALS COURSE FOR MANAGERS

The Software Testing Essentials course is a one day introductory course explaining the fundamentals of software testing. The course explains the importance of testing and reasons why we test software. It looks at how testing fits into the overall Development Lifecycle and what can be done to improve effectiveness and efficiency of testing within our organisation.

# SOFTWARE TESTING ESSENTIALS FOR MANAGERS

## Course Objectives

To provide delegates with an understanding of the principles of testing and explain different testing terminology. The course also provides an overview of the stages of testing and the different responsibilities assigned to each test group. Emphasis will be placed on managing the test process and measuring the value of testing.

## Who Will Benefit?

This 1-day course is appropriate for anyone new to testing or who wants a basic understanding of the concepts of testing. It will benefit test team leaders, development managers, project managers, business managers, test managers and senior managers.

## Skills Gained

- Learn about the principles and importance of testing and how it can make a difference within your organisation
- To gain an understanding of the various types of testing tools and where they fit into the overall lifecycle
- To understand and apply powerful monitoring techniques such as S-Curves and the radar diagram
- To improve your skills in test estimation using 6 different estimation methods, and to understand some of the problems associated with test estimation
- To be able to measure the value of testing using a simple yet powerful measurement technique called DDP (Defect Detection Percentage)

## Prerequisites

None.

## Course Content

### Principles of testing

**Importance of Testing** discusses how much project effort is typically spent testing and shows that although the purpose of testing is to assess the quality of the software, there can only be confidence in this assessment if the testing itself is of good quality. Describes the uses of software testing to assess, achieve and preserve software quality and highlights the importance of prioritising the tests.

**Principles of Testing** explains that looking for errors is the most effective approach to testing and that in order to have justified confidence in the quality of software it is necessary to try to break it.

**Causes of Error** describes a number of common causes of error and, although they cannot be eliminated, shows ways in which their numbers can at least be reduced.

## Testing in the Lifecycle

**The V life cycle model** uses the V-Model software development life cycle to explain the relationship between testing and development activities and describes the different types of testing activities, their purposes and benefits.

**Levels of testing** explains the main levels of testing including unit testing, integration testing, system testing, acceptance testing, system integration testing and maintenance testing. Also compares these with regression testing.

**The testing process** breaks down the testing process into a number of distinct activities to show what can be done to improve effectiveness and efficiency.

## Techniques and Tools

**What is a testing technique?** Explains what testing techniques are and the different types available. Also outlines a number of techniques and the differences between them. This section explains the advantages of using testing techniques.

**Systematic techniques** Explains the different types of systematic technique.

**Exploratory Testing** this section explains what Exploratory Testing is and how it can be used during development. It looks at how Exploratory Testing can be a powerful technique to complement the other systematic techniques.

**Testing Tools and Automation** Explains the different types of testing tool and where they can best be used throughout the development life cycle. Describes some of the issues involved in automating test execution. Explains why using capture / replay alone does not result in good automated tests.

## Overview on Managing Testing

**Estimating** How to prioritise test effort across a system and prepare estimates. The section introduces 6 estimation methods.

**Monitoring progress** explains various monitoring and controlling techniques to help keep testing on track. The section introduces the concept of the test manager's dashboard where the information can be displayed.

**Effectiveness of testing** A simple but powerful measure of the 'goodness' of the testing process enabling a prediction of corrective maintenance.

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