



Essentials of Software Testing

Module 1 — Chapter 1: Fundamentals of Testing

- Course Introduction
- Why Is Testing Necessary?
- What is Testing?
- Activity 1 Assignment
- Activity 1 Debrief
- General Testing Principles
- Activity 2 Assignment
- Activity 2 Debrief
- Fundamental Test Process
- Activity 3 Assignment
- Activity 3 Debrief
- The Psychology of Testing

Module 2 — Chapter 2: Testing Throughout the Software Lifecycle

- Software Development Models
- Activity 4 Assignment
- Activity 4 Debrief
- Case Study 1: Different Kinds of Lifecycles
- Test Levels or Phases, Part 1
- Test Levels or Phases, Part 2
- Activity 5 Assignment
- Activity 5 Debrief
- Test Types or Targets
- Activity 6 Assignment
- Activity 6 Debrief
- Maintenance Testing.

Module 3 — Chapter 3: Static Techniques

- Reviews and the Test Process
- Case Study 2: Reviews
- Review Process
- Activity 7 Assignment.
- Activity 7 Debrief
- Static Analysis by Tools

Module 4 — Chapter 4: Test Design Techniques

- Identifying and Designing Test Cases, Part 1
- Identifying and Designing Test Cases, Part 2
- Activity 8 Assignment
- Activity 8 Debrief
- Identifying and Designing Test Cases, Part 3
- Categories of Test Design Techniques
- Activity 9 Assignment
- Activity 9 Debrief

- Specification-Based or Black Box Techniques, Part 1
- Activity 10 Assignment
- Activity 10 Debrief
- Specification-Based or Black Box Techniques, Part 2
- Activity 11 Assignment
- Activity 11 Debrief
- Specification-Based or Black Box Techniques, Part 3
- Activity 12 Assignment
- Activity 12 Debrief
- Specification-based or Black Box Techniques, Part 4
- Case Study 3: Equivalence Partitioning
- Case Study 4: State-Based Testing
- Structure-Based or White Box Techniques
- Activity 13 Assignment
- Activity 13 Debrief
- Experience-Based Techniques
- Choosing Test Techniques
- Module 5 — Chapter 5: Test Management
 - Test Organization
 - Case Study 5: Things to Look for When Hiring
 - Test Planning and Estimation, Part 1
 - Activity 14 Assignment
 - Activity 14 Debrief
 - Test Planning and Estimation, Part 2
 - Test Progress Monitoring and Control, Part 1
 - Test Progress Monitoring and Control, Part 2
 - Configuration Management
 - Risk and Testing
 - Bug or Incident Management
 - Activity 15 Assignment
 - Activity 15 Debrief
 - Case Study 6: Bug Identification
- Module 6 — Chapter 6: Tool Support for Testing
 - Types of Test Tools
 - Effective Use of Tools, Potential Benefits and Risks
 - Activity 16 Assignment
 - Activity 16 Debrief
 - Introducing a Tool into an Organization