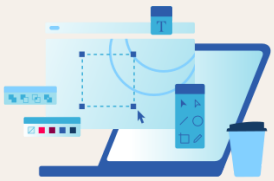
BRIGHT INFOTECH



Manual Testing Course Details

1. Introduction to Software Testing

- **What is Software Testing?**
  - Definition and Importance
  - Goals and Objectives
  - Software Development Life Cycle (SDLC)
  - Software Testing Life Cycle (STLC)
- **Types of Testing**
  - Manual vs. Automated Testing
  - Static vs. Dynamic Testing

2. Fundamentals of Manual Testing

- **Basic Concepts**
  - Verification vs. Validation
  - Debugging vs. Testing
  - Error, Bug, Defect, and Failure
- **Software Testing Principles**
  - Seven Testing Principles
  - The Pesticide Paradox

3. Testing Techniques and Methods

- **Black Box Testing**
  - Equivalence Partitioning
  - Boundary Value Analysis
  - Decision Table Testing
  - State Transition Testing
- **White Box Testing**
  - Statement Coverage
  - Branch Coverage
  - Path Coverage
  - Loop Testing
- **Grey Box Testing**
  - Combining Black Box and White Box Techniques

4. Levels of Testing

- **Unit Testing**
  - Basics and Purpose
  - Techniques and Tools
- **Integration Testing**
  - Basics and Purpose
  - Top-Down, Bottom-Up, and Sandwich Approaches
- **System Testing**
  - Basics and Purpose
  - Functional vs. Non-Functional Testing
- **Acceptance Testing**
  - Basics and Purpose
  - Alpha and Beta Testing
  - User Acceptance Testing (UAT)

5. Types of Testing

- **Functional Testing**
  - Smoke Testing
  - Sanity Testing
  - Regression Testing
  - Usability Testing
- **Non-Functional Testing**
  - Performance Testing (Load, Stress, and Volume)
  - Security Testing
  - Compatibility Testing
  - Accessibility Testing
- **Specialized Testing**
  - Localization and Globalization Testing
  - Mobile Testing
  - API Testing

6. Test Planning and Documentation

- **Test Planning**
  - Importance of Test Planning
  - Test Plan Components
  - Risk Analysis and Mitigation
- **Test Documentation**
  - Test Scenarios and Test Cases
  - Writing Effective Test Cases
  - Traceability Matrix
  - Test Summary Reports

7. Test Execution and Defect Management

- **Test Execution**
  - Test Execution Process

    - Test Data Preparation
    - Logging Test Results
- **Defect Management**
    - Defect Life Cycle
    - Defect Reporting and Tracking
    - Tools for Defect Management (e.g., JIRA, Bugzilla)
    - Defect Severity and Priority

8. Software Quality Assurance

- **Introduction to QA**
    - QA vs. QC vs. Testing
    - Importance of Quality Assurance
- **Quality Standards**
    - ISO Standards
    - CMMI (Capability Maturity Model Integration)
    - Six Sigma
- **Reviews and Audits**
    - Peer Reviews
    - Walkthroughs
    - Inspections
    - Audits

9. Tools for Manual Testing

- **Test Management Tools**
    - Introduction to Test Management Tools
    - Overview of Popular Tools (e.g., TestRail, HP ALM, Zephyr)
- **Defect Tracking Tools**
    - Introduction to Defect Tracking Tools
    - Overview of Popular Tools (e.g., JIRA, Bugzilla, Mantis)
- **Other Essential Tools**
    - Spreadsheet Tools for Test Case Management
    - Collaboration Tools (e.g., Slack, Microsoft Teams)

10. Soft Skills and Best Practices

- **Communication Skills**
    - Effective Communication with Stakeholders
    - Writing Clear and Concise Defect Reports
- **Analytical Skills**
    - Critical Thinking and Problem Solving
    - Attention to Detail
- **Time Management**
    - Prioritizing Test Cases
    - Managing Deadlines
- **Best Practices**
    - Continuous Learning and Improvement

- Staying Updated with Industry Trends

11. Real-World Project

- **Project Planning and Design**
  - Identifying a Real-World Application
  - Requirement Gathering and Analysis
- **Test Case Development**
  - Writing Test Scenarios and Test Cases
  - Reviewing and Finalizing Test Cases
- **Test Execution and Reporting**
  - Executing Test Cases
  - Logging Defects and Reporting Results
- **Project Presentation**
  - Creating a Project Presentation
  - Demonstrating Testing Process and Findings