INFOSOFT IT SOLUTIONS

Training | Projects | Placements

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<u>Manual Testing</u>

Introduction to Software Testing

- Overview of Software Testing: Importance, objectives, and principles
- Software Development Life Cycle (SDLC) and Testing: Phases and testing activities
- Types of Testing: Functional vs. Non-functional testing

Software Testing Fundamentals

- Testing Levels: Unit testing, integration testing, system testing, acceptance testing
- Testing Techniques: Black box vs. White box testing
- Test Artifacts: Test plan, test cases, test scripts, test data

Testing Process and Methodologies

- Test Strategy and Planning: Defining test objectives and scope
- Test Execution: Running tests, logging defects, and tracking results
- Test Reporting: Creating test reports and metrics

Test Case Design Techniques

- Equivalence Partitioning and Boundary Value Analysis
- Decision Table Testing
- State Transition Testing
- Use Case Testing

Functional Testing Techniques

- Smoke Testing: Sanity testing and regression testing
- Integration Testing: Testing interfaces and interactions between components
- System Testing: Validating the entire system against requirements

Non-functional Testing Techniques

- Performance Testing: Load, stress, and scalability testing
- Usability Testing: User interface and user experience testing
- Security Testing: Vulnerability assessment and penetration testing

Test Management Tools

- Introduction to Test Management Tools: JIRA, TestRail, HP ALM (Application Lifecycle Management)
- Test Case Management: Creating, executing, and tracking tests
- Defect Management: Logging, prioritizing, and resolving defects

Test Documentation and Reporting

- Test Documentation Standards: Creating test plans, test cases, and test scripts
- Test Metrics and Reporting: Generating test reports, tracking progress

Test Execution and Defect Tracking

- Test Execution Process: Executing test cases, recording results
- Defect Tracking: Logging defects, triaging, and managing defect lifecycle

Agile Testing Practices

- Agile Methodology Overview: Scrum, Kanban, XP
- Testing in Agile Projects: Sprint planning, continuous integration, and regression testing
- Agile Testing Techniques: Test-driven development (TDD), behavior-driven development (BDD)

Test Automation Fundamentals

- Introduction to Test Automation: When to automate testing
- Test Automation Tools: Selenium WebDriver, Appium for web and mobile testing
- Creating and Running Automated Tests

Exploratory Testing

- Exploratory Testing Techniques: Session-based testing, heuristics testing
- Benefits and Challenges of Exploratory Testing

Software Quality Assurance (QA) Principles

- Quality Assurance vs. Quality Control
- Continuous Improvement: Implementing QA processes and best practices

Software Testing Case Studies and Projects

- Real-world Testing Projects: Implementation and evaluation
- Case Studies: Industry-specific applications (e.g., e-commerce, healthcare)
- Presentation and Documentation of Testing Projects

Career Development in Software Testing

- Building a Career Path in Software Testing
- Industry Certifications: ISTQB (International Software Testing Qualifications Board), Certified Agile Tester (CAT)
- Interview Preparation and Job Placement Strategies