Testing Essentials

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Key Topics Covered

- Software Testing Fundamentals
- Types of Testing
- Testing Levels
- Test planning and Documentation
- Defect Management
- Test Automation Tool
- Performance Testing

Implementing Testing essentials in a real-time product

1. Requirement Analysis

Objective: Understand and analyze the requirements to ensure comprehensive testing coverage.

Activities:

- Review the functional and non-functional requirements.
- Identify the testing requirements, such as types of tests (functional, performance, security) and the scope of testing.

2. Test Planning

Objective: Develop a detailed test plan to guide the testing process.

Activities:

- Define the test strategy, objectives, scope, resources, schedule, and deliverables.
- Identify test metrics, risk management, and contingency plans.

3. Test Case Development

Objective: Create detailed test cases and test scripts based on the requirements.

Activities:

- Write test cases for each requirement, detailing preconditions, test steps, expected results, and postconditions.
- Review and validate test cases with stakeholders.

4. Test Execution

Objective: Execute the test cases and report defects.

Activities:

- Execute test cases according to the test plan.
- Log defects and track their status.
- Perform regression testing to ensure that fixes do not introduce new issues.

5. Test Closure

Objective: Ensure all test activities are completed and evaluate the testing process.

Activities:

- Verify that all test cases are executed, and all defects are resolved.
- Document the test results and prepare a test summary report.
- Conduct a test closure meeting to discuss lessons learned and best practices.

Why is testing essential needed?

- Quality Assurance
- Ensure Reliability
- Improve Security
- Increases Efficiency
- Enhances User Experience

Why do we need to know testing essentials before Automation Overview?

- Foundational Knowledge
- Identify Suitable Tests for Automation
- Test Case Design
- Understanding Testing Lifecycle
- Best Practices