

Software Test Management (QA Lead Training)

1. Introduction to Test Management.
 - a. Overview of test management roles and responsibilities.
 - b. Importance of test management in software development lifecycle.
2. Understand the importance of Test Management, Leadership and Team Building.
 - a. Role of leadership in fostering a culture of quality.
 - b. Techniques for team building and collaboration in testing teams.
3. Difference between Test Strategy and Test Plan.
 - a. Key components and objectives of a test strategy.
 - b. Elements included in a test plan and their purpose.
4. Test Strategy preparation.
 - a. Defining testing objectives and scope in a test strategy.
 - b. Selecting appropriate testing techniques and tools.
5. Test Plan preparation.
 - a. Writing test cases and test scenarios.
 - b. Defining test environment setup and test data requirements.
6. Test Effort Estimation
 - a. Techniques for estimating testing efforts (e.g., function points, use case points).
 - b. Factors influencing test effort estimation.
7. Risk and Issue Management.
 - a. Identifying and assessing risks in software testing.
 - b. Strategies for managing testing issues and mitigating risks.
8. QA Project plan preparation.
 - a. Creating a comprehensive QA project plan.
 - b. Allocating resources and defining timelines for testing activities.
9. Test Execution plan.
 - a. Planning for test execution phases (e.g., smoke testing, regression testing).
 - b. Assigning responsibilities and defining exit criteria.
10. Test Deliverables.
 - a. Types of test deliverables (e.g., test cases, test scripts, test summary reports).
 - b. Ensuring completeness and quality of test deliverables.
11. Importance of Ad hoc Testing and Exploratory testing
 - a. Benefits of ad hoc testing in finding unexpected defects.
 - b. Techniques and principles of exploratory testing.

12. Risk Based Testing: How to implement a Risk Based Testing approach and when to use it?
 - a. Identifying critical areas and prioritizing testing based on risk.
 - b. Integrating risk-based testing into test planning and execution phases
13. Daily / Weekly and Monthly Test Status Reporting.
14. Test Scheduling, Resource allocation, Contingencies and Re-planning.
 - a. Techniques for scheduling testing activities and allocating resources.
 - b. Strategies for managing contingencies and adjusting plans as needed.
15. How to analyze and plan QA activities during Change Management
 - a. Incorporating QA processes into change management procedures.
 - b. Ensuring testing coverage and validation during system changes.
16. QC Configuration, Quality Center, Traceability Matrix, Dashboard, Test Metrics and Reports in QC.
 - a. Configuring Quality Center (QC) for test management.
 - b. Creating traceability matrices, dashboards, and generating test
17. Test Progress Monitoring, Defect tracking and analysis, Test Effectiveness and When to stop testing
18. Test Matrices:-Making the decision to use metrics in the testing process.
 - a. Types of test metrics (e.g., defect density, test coverage).
 - b. Criteria for selecting and applying metrics to improve testing efficiency.
19. Test Summary Report
20. Test Closure: Understanding the importance of a Test Closure report.
21. Defect Management: The role of defect management in Project success.
 - a. Defining defect management processes and workflows.
 - b. Strategies for prioritizing, resolving, and tracking defects throughout the project lifecycle.
 - c. Defect Analysis.
22. Root Cause Analysis ? Fish Bone Diagram.
23. Test Process Improvement.
24. Test Automation Management
25. Feasibility of Automation
26. What to Automate?
 - a. Selecting test cases and scenarios suitable for automation.
 - b. Prioritizing test automation efforts based on criticality and frequency.
27. Tool Issues
 - a. Evaluating and selecting appropriate testing tools and technologies.
 - b. Addressing challenges and considerations in tool implementation and usage.
28. Practical on a Sample Project