Manual Testing Learning Curriculum

# Week 1: Software Testing Basics

* Concepts:

- What is Software Testing? Why is it needed?

- SDLC vs STLC (Software Development Life Cycle vs Software Testing Life Cycle)

- Verification vs Validation

- QA vs QC vs Testing

- Types of Testing (Manual vs Automation)

* Practice:

- Read about a sample application (like Gmail or any e-commerce site).

- Write a simple 'Test Scenario' for Login functionality.

# Week 2: Testing Techniques & Levels

* Concepts:

- Levels of Testing: Unit, Integration, System, Acceptance

- Functional vs Non-functional Testing

- Smoke vs Sanity Testing

- Regression Testing

- Exploratory & Ad-hoc Testing

* Practice:

- Create at least 10 test cases for a Calculator app.

- Identify which are smoke and which are regression.

# Week 3: Test Case Design

* Concepts:

- Test Case, Test Scenario, Test Suite

- Positive vs Negative Test Cases

* - Black Box Testing Techniques:

\* Equivalence Partitioning

\* Boundary Value Analysis

\* Decision Tables

\* State Transition Testing

* Practice:
* - Write 15+ test cases for:

\* Login Page (Username/Password validation)

\* Online Registration Form

# Week 4: Defect Management

* Concepts:

- What is a Defect, Bug, Error, Failure

- Bug Life Cycle

- Severity vs Priority

- How to write a good Bug Report

- Defect Tracking Tools overview (JIRA, Bugzilla)

* Practice:

- Write sample bug reports for Login page issues.

- Categorize bugs by severity and priority.

# Week 5: Test Planning & Test Strategy

* Concepts:

- Test Plan & its components

- Entry and Exit Criteria

- Traceability Matrix (RTM)

- Test Strategy vs Test Plan

- Risk-Based Testing

* Practice:

- Create a mini Test Plan for an e-commerce Checkout feature.

- Build a Requirement Traceability Matrix (map requirements to test cases).

# Week 6: Non-Functional Testing Basics

* Concepts:

- Usability Testing

- Performance Testing (Intro: Load, Stress, Volume)

- Security Testing basics

- Compatibility Testing (browser/device/platform)

* Practice:

- Do a usability review of a popular app (WhatsApp, Flipkart, YouTube).

- List at least 5 usability issues.

# Week 7: Testing in Agile

* Concepts:

- Agile Methodology basics

- Scrum Roles (PO, SM, Dev, QA)

- User Stories, Acceptance Criteria

- Testing in Agile: Continuous Testing, Sprint Testing

- Difference between Agile & Waterfall in Testing

* Practice:

- Take a sample User Story (e.g., 'As a user, I want to reset my password').

- Write Acceptance Criteria & corresponding test cases.

# Week 8: End-to-End Project Simulation

* Concepts:

- Review of all testing concepts

- Real-time QA activities: requirement analysis, test case design, execution, bug reporting

- UAT (User Acceptance Testing)

* Practice:

- Choose a demo application (e.g., OrangeHRM or any shopping website).

* - Perform:

\* Requirement analysis

\* Test case writing

\* Test execution

\* Bug reporting

\* RTM preparation

- Make a final mini portfolio project.

# Final Deliverables (After 2 Months)

* 50+ Test Cases (Login, Calculator, Registration, Checkout flow, etc.)
* 10+ Sample Bug Reports
* 1 Test Plan Document
* 1 Requirement Traceability Matrix
* Mini QA Portfolio