MANUAL TESTING
Course Curriculum

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2 Overview

Testing is the mandate phase of any product /project to check the Quality and ensuring the defect free service to the end customers. Software development life cycle(SDLC) incudes testing as one of the critical phase.
One must understand the core concept of SDLC and Software testing life cycle (STLC) in order to understand the overall concept of software testing.

Software testing has two core methodology :

I. Manual Testing
II. Automation Testing

Manual testing is the mandatory and core of software testing, always needed before start learning and performing the automation testing.

This course will be covering all aspects manual testing required during software development life cycle to make you industry ready and get started your manual software testing journey.

3 Course objectives

The Primary goal of this course is to make you industry ready by giving tools & techniques required to perform and produce the desire result from day-1 in any organization.

To achieve the above goal, we will be achieving below objectives :

I. Learn the need of testing
II. Understand and learn the concept of Software development life cycle(SDLC)
III. Understand various SDLC models
IV. Understand STLC
V. To learn various testing methodologies
VI. Learn how to create & execute a test plan
VII. To create test cases , execute test case and log defects
VIII. Managing and maintaining the test plan
IX. Learn trending and most common testing tools used in the Software companies
X. To learn various project management tools needed to collaborate along team

XI. To learn basic and core concept of database (SQL) required to perform more than basic manual testing

XII. To create and learn how create various required documents using word /excel which will help to be an efficient tester

XIII. Mobile application and web portal testing

XIV. Learn how to create, read and manage common industry documentation like Requirement traceability matrix(RTM) , Impact analysis (IA) , Risk Analysis (RA).

XV. To learn basic of API testing, Load testing and database testing

XVI. Basic introduction with Automation testing to make of aware of future reediness.

4 Pre-requisite

To be very honest if you have the zeal to learn there is no other pre-requisite required to learn this program. Additionally other criteria to attend the course is :

I. Basic computer knowledge

II. If want to start the career in software testing

III. Already a tester and want to enhance and sharp you testing ability skills to reach at next level

IV. Fresher/graduates want to learn something exciting and looking for a job

V. If you are good at logic/analytic thinking but don't like coding

VI. If you are working in some other area and want to switch carrier in IT field.

5 Skills/Tools you will learn

S.No.	Skill/Module name	Tools you will learn
1.	SDLC Methodology	I. Waterfall II. Agile III. Scrum IV. Others
2	Testing Defect management tools	I. Bugzilla II. TFS

		III. OTRS IV. Others
3	Test case writing tool	I. MS-excel II. Testrail III. TestLink IV. Others
4	Project management /Communication tool	I. Basecamp II. Slack III. Asana IV. Trello V. Teamwork VI. Others
5	Test Documentation	I. RTM II. BRS/FRS III. Test Plan IV. IA/RA V. Build Release Note (BRN)
6	Additional Testing	I. Various testing types II. Mobile application III. API testing using Postman tool IV. Others
7	Database	I. Basic of database II. How to create tables/queries III. SQL basics
8	Document Skills	I. MS-Word II. MS-Excel III. Mind mapping tool (X-mind) IV. MS-Project /Visio basics V. Project/test plan
9	Soft skills	I. Email writing II. Team communication III. Client communication IV. Analytics/Logical reasoning basics V. Resume building VI. Mock Interviews

6 Course In Details

6.1 Module 1 : Introduction to Testing

I. Get familiar with testing concepts
II. Importance of testing
III. Roles and Responsibilities of a tester in an organization
IV. Active/passive state of an tester in a project/product
V. Differences between Manual and Automation Testing
VI. Open session Q/A on learnings assessment

6.2 Module 2 : Software development/Testing life cycle(SDLC & STLC) Process model

I. Difference between SDLC & STLC
II. Getting familiar with SDLC Process :
    a. Requirement Analysis & Specification
    b. Design
    c. Implementation
    d. Testing
    e. Deployment
    f. Maintenance
III. Getting familiar with STLC Process :
    a. Requirement Analysis
    b. Test Planning
    c. Test Case Development
    d. Test Environment Setup
    e. Test Execution
    f. Test Closure
IV. Getting familiar with different software development methodology
    a. Waterfall
    b. Iterative

c. Agile/Scrum
d. Extreme
e. Others

V. Quantitative analysis of QA process in each methodology
VI. QA involvement and how to work in development software methodology Waterfall/Agile/Scrum
VII. Open session Q/A on learnings assessment

6.3 Module 3 : Software testing core components

I. Unit Testing
II. Integration/System testing
III. Functional Testing
IV. Regression Testing
V. Acceptance Testing

6.4 Module 4 : Software testing methodologies in details

I. Testing techniques
    a. White box
    b. Black box
    c. Grey box
II. Functional testing
    a. Unit
    b. Integration
    c. System
    d. Acceptance
III. Non-functional testing
    a. Performance testing
        i. Load testing
        ii. Volume testing
        iii. Stress testing

iv. Endurance testing

v. Spike testing

b. UI testing

c. Security testing

d. Compatibility testing

e. Configuration testing

f. Localization testing

g. Usability testing

h. Documentation testing

6.5 Module 5 : Testing tools & techniques

I. Test Plan

a. What is test plan & how is it important

b. Companies guidelines to write the test plan

c. Type of test plan

d. Writing and creating test plan

e. Test plan attributes

f. Defining role & responsibility

g. Backup/Mitigation plan

h. Entry & Exit criteria

i. Test automation

j. Deliverables

k. Managing the test plan

II. Test Case designing

a. Introduction to test cases

b. Test case write language needed in organization

c. Approach to write test case

d. Test case writing procedure

e. Creating Agile test case

f. Test case template preparation

g. Test case review & approval

III. Test Environment setup

a. Understanding Project requirements

b. Hardware & software review/pre-requisite

c. Test data setup & preparation

d. Review & run Smoke testing

IV. Test Execution

a. Activities for test execution

b. Sanity testing

c. System Integration testing- Run all possible test case/Test suites

d. Defect reporting & maintaining

i. Defect life cycle

ii. Defect classification

iii. Impact analysis & reporting

e. Test execution report

f. Maintaining & mapping test case and RTM document based on the raised defect

g. Regression testing cycles

h. Final regression testing

i. Test signoff

V. Test Closure

a. Criteria for test closure

b. Test summary/completion report

c. Test completion matrix

d. Managing test results articulate

VI. Test Documentation

a. RTM

b. BRN

c. BRS/SRS

d. Test Plan

6.6 Module 6 : APi & Mobile application Testing

I. Understand API's
II. Basics of API testing
III. API testing using tool
IV. Introduction to the Mobile applications
V. Types of mobile applications
VI. Mobile application architecture
VII. Test Strategy for mobile apps
VIII. Device specific testing for compatibility

6.7 Module 7: Database(SQL) learning for testing

I. Why test database
II. Data mapping & ACID Properties validation
III. Data integrity
IV. Business rules confirmation
V. Testing Database as manual tester
VI. SQL basics and key commands

6.8 Module 8: Project management tools

I. Basecamp
II. Slack
III. Asana
IV. Trello
V. Teamwork

6.9 Module 9: Document creation & management

I. MS-Word
II. MS-Excel
III. Mind mapping tool (X-mind)

IV. MS-Project /Visio basics

V. Project/test plan

6.10 Module 10: Soft Skills Development for QA

I. Email writing

II. Team communication

III. Client communication

IV. Analytics/Logical reasoning basics

V. Resume building Mock Interviews