SOFTCRAYONS
Tech Solutions Pvt. Ltd.

Manual Testing

@softcrayons

About Course

Manual Testing is a software testing process in which test cases are executed manually without using any automated tool. All test cases executed by the tester manually according to the end user's perspective. It ensures whether the application is working, as mentioned in the requirement document or not.

MANUAL TESTING

CURRICULUM

① Introduction to Software Application and Fundamental of Testing

- Overview of Software Application Testing
- Why is testing necessary
- Software testing Principles
- Psychology of software testing
- Causes of Software Defects
- Terms used in Software Testing [Defect, Error, Bug, Failure etc..]
- Overview of SDLC [Software Development Life Cycle]
- Overview of Project Execution Lifecycle
- Overview of Project Lifecycle

② Models of Software Engineering

- Waterfall Model
- Prototype model
- Spiral Model
- Incremental Model
- Iterative Model
- RAD (Rapid Application Development)

3 Quality Management System

- What is Quality Management System and It's need
- What is Quality Assurance
- What is Quality Control
- Review process and Types of Review Process
- Different Roles and Responsibilities of reviewers
- Walkthrough
- Inspection
- Code Review
- Peer Review
- Verification Vs Validation
- Static & Dynamic Testing techniques
- Quality StandardCMM, ISO, 6Sigma

4 Software Testing methodology

- White Box
- Black Box
- Grey Box

5 Levels of Software Testing

- Unit Testing
- Integration Testing
- System testing
- UAT

6 Testing Types/Approaches

- Smoke Testing
- Sanity Testing
- Re-Testing
- Regression Testing
- Ad-hoc and Exploratory testing
- Monkey & Gorilla Testing
- Alpha Testing
- Beta Testing
- Validation Testing
- Web Application Testing
- Accessibility Testing
- Recovery Testing
- System Compatibility
- Browser Compatibility Testing
- Cross Browser Testing
- Multiple Browser Testing
- Forward and backward compatibility
- Performance Testing
- Load Testing
- Stress Testing
- Volume Testing
- Usability Testing
- Accessibility testing
- Security Testing
- Multilingual testing

7 Introduction of different Test Estimation techniques and Reporting techniques

- Test plans estimates and strategies
- Different test approaches
- Test progress,monitoring and control
- Configuration management
- Risk and testing
- Identifying test condition and design test cases
- Categories test design techniques
- Specification based or black box techniques
- BVA
- ECP
- Decision table testing
- State transition testing
- Orthogonal array
- Structure based or white box testing techniques
- Cyclomatic complexity
- Basis path testing
- CFG
- Statement coverage
- Branch coverage
- Path coverage
- Experience based techniques
- Risk based Testing
- Choosing a test techniques

Bug/defect lifecycle
Defect Severity & Priority

8 Software Testing Life Cycle (STLC)
Practical session on Live/Inbuilt and real time Projects (Lab Session)

Creation Of Test Plan
Creation Of Test Scenarios, Test Cases
Test case execution
Bug tracking and reporting
Implementation of testing optimization Techniques (ECP, BVA, Decision Table...)
Overview of Test Metrics, creation and its importance
Types of Test Metrics
Traceability Metrics
Test report preparation
Test closure Report preparation

9 Real Time Process testing terminologies

Test bed, Test Hardnesses, Test Suit, Test basis, Test artifacts, Deffirent Environment(DEV,Test, Production), Requirements Volatility, Stagging process, Build Process, Test Cycle, Re-spin,

Test Efficiency, Hot fix, Patch, Base Line, Change request, Defect age, Defect clustering, Defect slippage, Impact Analysis,Defect root cause,Escalation process and more....

10 Agile Methodology

- Introduction to Agile Methodology &Agile Manifesto
- Overview of Different Agile methods
- When to Use Scrum vs. When to Use Traditional Methods
- Scrum Process
- Scrum Roles
- Scrum Team
- Time-Box Concept
- Event 1: The Sprint
- Event 2: Sprint Planning
- Event 3: Daily Scrum
- Event 4: Sprint Review
- Event 5: Sprint Retrospective
- Product Backlog Grooming
- Scrum Artifacts
- Artifact 1: Product Backlog
- Artifact 2: Sprint Backlog
- Artifact 3: Increment
- Artifact 4: Definition of “Done”

Artifact 5: Monitoring Progress toward a Goal
Artifact 6: Monitoring Sprint Progress
Agile Tracking, Scrum Meeting and Daily Stand-ups
Product Backlog Grooming

11 Agile Test Management and Bug tracking/ Reporting with JIRA

Introduction about Jira tool
What is an Issue?
What is a Project?
What is a Workflow
Exploring the JIRA workspace
Managing your user profile
Navigating JIRA
Creating an Issue
Viewing Issues
Editing Issues
Transitions and Screens
The Workflow Viewer
Collaboration
Search
Detail View
Configuring Filters
Email Filter Results
Standard & Custom Reports

12 Database Testing Introduction

- What is Database Application?
- Overview about database structure
- Introduction about deferent database types
- Understanding data storage
- Back end & front end Testing
- General Database Basics
- Essential elements needed for database testing
- writing test plan for database testing
- Organizing DB Testing approach
- writing test cases for database testing

13 Basic SQL

- Why should Test professionals know Structured Query Language?
- Writing the statement in SQL Plus
- Overview of DML , DDL, TCL,DCL
- DML : Insert , update , Delete , merge
- DDL : Create, Drop, Alter, Rename, Modify, Truncate
- TCL : Commit, Roleback, SavePoint

14 SQL Functions

Single Row Function / Multiple Row Function
String Function , Number Function , Date and Time Function, General Function

15 Joining Tables

Obtaining data from multiple tables
Types of joins : Inner joins , Non-equi Join, Natural Join, Right outer join, Full outer Join

16 Operators: (data using Group Function)

Arithmetic Operator
Relational/Logical
Like Operator

17 Constraints & View

Not Null
Unique
Primary key

18 Aggregating data using group functions

GROUP BY
HAVING

19

Overview and concept Sub queries

Single Row sub queries
Multiple row Sub queries

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