

CETPA INFOTECH PVT. LTD.

CURRICULUM FOR SQT Basics of Testing

Module-1. Manual Testing

Introduction

- Introduction to Software Engineering
- Importance of Software Testing
- Define Software, Quality, Testing
- Seven Principles of Software testing
- Terms used in SQT (Defect, Error, Bug, Failure, Fault, etc...)
- Software Development Life Cycle

Models of Software Engineering

- Linear Sequential Model (Water Fall Model)
- Prototype Model
- Incremental Model (RAD)
- Spiral Model
- V Model

Fundamentals of Testing

- Seven Testing Principles
- Psychology of Testing
- Static Testing
- Review
- Inspection
- Audit
- Walkthrough

Testing Methodologies

- Black Box Testing
- Boundary Value Analysis
- Equivalent class Partitioning
- Decision table Testing
- State transition testing
- White Box Testing
 - Conditional Coverage
 - Branch Coverage
- Gray Box Testing

Testing Levels

- unit Testing
- Integration Testing
- System Testing
- Functional Testing
- Non Functional Testing
- Alpha-Beta Testing
- User Acceptance Testing
- Final release and Integrity Testing

Types of Testing

- Re-Testing and Regression Testing
- Sanity Testing and Smoke Testing
- Usability testing
- Compatibility Testing
- Load, Stress, Volume, Endurance Testing
- Performance Testing
- Positive and Negative Testing
- Adhoc Testing
- Security Testing
- Usability testing

Test Management

- Test plan
- Software Test Life Cycle (STLC)
- Test Case
- Test Data
- Overview of Traceability Matrix and creation
- Overview of Test Metrics and its Importance
- Optimizing Test Cases (Testing Techniques)
- Defect Life Cycle
- Bug Reporting and Management
- Severity Vs Priority

Agile Methodology

- Introduction to Agile Methodology
- Scrum Process
- Meeting & Artifacts (Sprint, Sprint Burn Down chart, Sprint, Sprint Review etc...)

Quality Assurance and Quality Control

- ISO and CMM certifications and its relevance
- Quality Assurance
- Quality Control
- Difference between Quality Assurance and Quality Control

Configuration Management

- Goals of Configuration Management
- Configuration Management Plan

Live Project

- Web Portal
- Tours

MODULE-2: Automation Testing

(Quick Test Professional)

- Introduction to Quick Test Professional (QTP)
- Types of Recording

Normal, Analog & Low Level

- Types of Object Repository
- Merging of Object Repository
- Check Points
- Standard Checkpoint
- Text Checkpoint
- Text Area Checkpoint
- Bitmap Checkpoint
- Database Checkpoint
- Accessibility Checkpoint
- XML Checkpoint (from application)
- XML Checkpoint (from resources)

Parameterization

- Data Table
- Random Number
- Environment Variable
- Action Parameter

Output Values

- Standard Output Value
- Text Output Value
- Text Area Output Value
- Database Output Value
- XML Output Value (from application)
- XML Output Value (from resources)

Recovery Scenario Manager

- Popup & Object
- Test Run error
- Application Crash

Actions

- Call to new action
- Call to existing action
- Call to copy action

Call to Win Runner

Test Batch Runner

Defect Tracking Tool

- Introduction to Mantis
- Use of Mantis on live platform

Performance Testing Tool (Load Runner)

- Introduction to Load Runner (LR)
- Load Runner Testing Process
- Working with Vuser Scripts
- Working with Vuser
- Setting Transactions
- Define Rendezvous Point
- Inserting Rendezvous Point
- Load Runner Controller
- Load Runner Generator
- Generating Load through Vusers
- Load Runner Result Analyzer
- Generating Reports

MODULE-3: Database Testing

Introduction

- What is Database Application?
- Understanding data storage
- Back end & front end Testing
- General Database Basics
- Relational Database Concepts

Basic Sql

- Overview of DML , DDL, TCL
- DML : Insert , update , Delete , merge
- DDL : Create, Drop, Alter, Rename, Modify, Truncate
- TCL : Commit, Role Back, SavePoint

Joins

- Obtaining data from multiple tables
- Types of joins : Inner joins, Non eques Join, Cross Join, Natural Join, Left Join ,Right join, Full Join

Operators : (Data Using Group Function)

- Arithmetic Operator
- Relational/Logical
- Like Operator

Constraints & View

- Not Null
- Unique
- Primary key
- Foreign key
- Check

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