# Testing

### What is Testing

### Importance of Testing & Overview

# Tester Roles in a company

### Requirement study

### Test Preparation

### Test Scenario Preparation

### Test Scenario Internal & External review

### Test Scenario walkthrough session with BA

### Test Scenario Approvals

### Test case design /preparation

### Send Test cases for Internal review with in the team

### Send Test cases for external review with BA, Design team etc

### Test case uploads in Quality Center

### Attending daily status meeting to progress updates

### Query tracker follow-up with BA

### Ensure Test case/scenario/defect standards as per the project team

### Sending daily progress updates

### Test case execution

### Defect logging

### Test Reporting

# Software Development Life Cycle

STLC Phases 🡪 V Model

1. SDLC Phases 🡪Water fall model, Agile Methodology
2. What is Quality Center?
   1. **Requirements** – How to create requirements
   2. **Test Plan** –
      1. How to write test cases,
      2. How to upload test cases,
      3. How to link requirements to Test cases,
      4. How to create test case,
      5. Test case template
      6. How to write prerequisite in Test case step
   3. **Test Lab**-
      1. How to create Test set,
      2. How to drag test cases under test set,
      3. How to executes test cases (PASS,FAIL,BLOCK,NO RUN,NOT Completed)
      4. How to link defects to failed test cases
   4. **Defects**
      1. How to create/log defects
      2. Defect parameters
      3. Defect life cycle
3. Test Environment
   1. Development Environment
   2. Test Environment
   3. Production Environment
   4. What is a Build in testing terminology?
   5. Build/Code Deployment?
   6. Test Environment up & Running, Test environment downtime?
   7. Test environment access and checks with your user id
   8. Test Data
4. System & Integration Testing
   1. Functional Testing team/Release Testing
   2. Regression Testing Team
   3. Integration Testing Team
   4. Auto mation Testing Team
   5. Performance testing Team
   6. Security Testing Team
   7. UAT Testing team (SIT,FAT , last UAT )
5. Testing definition
   1. Unit Testing
   2. Smoke/Sanity Testing
   3. Regression testing
   4. Role Based Testing
      1. View level access ( Page access)
      2. Data level access (Records visibility)
      3. Hierarchy based Testing (Sales & Manager,approvals,rejects)
      4. State Model diagram ( Sales user,Manager,AuditManger status tracking)
      5. Region based Testing
   5. Performance testing
   6. Security Testing Team
   7. UAT Testing :
      1. Alpha Testing
      2. Beta Testing
   8. Integration Testing: API Testing/Web Services Testing/Interface 223/334
      1. Top Down approach (Stubs) Example : API Testing
      2. Bottom up Approach (Drivers)
      3. Inbound & Outbound Testing
   9. Compatibility Testing:
      1. Browser (IE,FIREFOX,Chrome)
      2. Windows7,Windows 8, Windows 10 (plat form)
   10. Adhoc Testing:
       1. No Test cases for Adhoc Testing
       2. Random testing
       3. Based on experience
   11. GUI based Testing:
       1. Navigations
       2. Look & Feel, Spell checks
       3. Report download options (PDF,xlsx,.doc,CSV) etc
       4. Page headers ,logos, Page titles
       5. Drop downs, multiple sele
       6. Search Page/Search Centers etc …
   12. Patch Testing:
       1. Monthly patch testing of Product new features
       2. Quarterly patch testing
   13. Risk based Testing

# Test Scenario & Test Case

* 1. How to write Test case (FR documents, Specification)
  2. How to write Test scenario
  3. Test case attributes
  4. Test case template
  5. Test data?
  6. Test Prerequisite?
  7. Expected Result ( Test design bases on requirements)
  8. Actual Result( Test Lab during execution phase)
  9. Test case design complexity calculation (Simple/Medium/Complex) :
     1. Number of steps
     2. Complex calculations
     3. Number of Interfaces/components
  10. Test case Execution complexity calculation (Simple/Medium/Complex) :
      1. Test Data preparation
      2. Role based testing
      3. Complex calculations testing
      4. Source & Target systems data reconciliation testing

# Reports

* 1. Daily Status Report
  2. Weekly/Monthly Status Report

# Test Deliverables

* 1. Test Plan
  2. Test Strategy
  3. Test Scenario’s & Test Cases
  4. RTM (Requirement traceability matrix)
  5. Test Completion certificate

# Testing techniques

* 1. Boundary value analysis
  2. Equivalence partition
  3. Path Testing ensures all flows covered or not?

# Testing Metrics

* 1. Test estimations 🡪 simple , medium, complex
  2. Pass#,Fail#,Block#,No Run#, Not Completed 🡪 Daily status Report
  3. Number of test cases Design #, Completed #
  4. Number of defects #

Person Hour calculation

|  |  |  |
| --- | --- | --- |
| Test Scenario | Test Cases Design |  |
| TS01 | TC01 | Simple |
|  | TC02 | Medium |
|  | TC03 | Complex |
| TS02 | TC01 | Simple |
|  | TC02 | Complex |

96 hours – 2 hour

Simple – 20 min, Medium – 40 min, Complex - 60

|  |  |  |
| --- | --- | --- |
| Test Scenario | Test Case Exustion |  |
| TS01\_Change Adddress | TC01\_RecurringBank\_Change Add | Medium |
|  | TC02\_Saving Bank\_Change Address | Complex |
|  | TC03 | Complex |
| TS02 | TC01 | Simple |
|  | TC02 | Complex |

<https://www.javatpoint.com/manual-testing>