

## **WHAT BASIC CAN BE INCLUDED IN A TEXT SCENARIO**

- Sr no
- Test feature
- Test case id
- Test action
- Status

## **What is software testing**

- Software testing is a process of verifying the feature from the business point of view, like we need to check what developer have developed (actual result) meets the business requirement (expected result)
- What is a difference between bug and error
- An error is more like a mistake made by human
- A bug is more like a flaw that is present in product which is eventually leading to unexpected behavior

## **TYPES OF TESTING**

Major tree types are

- White
- Grey
- Black

**And two main types of testing are**

- Manual
- Automation

## **HOW MANY TYPES OF PRIORITY CAN BE DEFINED**

- In broader sense two types of priority can be defined
- High level and low level

## **STAGES IN DEFECT LIFE CYCLE**

- New
- Assigned
- Fixed
- Ready to test
- Closed
- Reopen
- Duplicate

## **WHAT IS THE THREE TYPES OF APPLICATION**

- Standalone: application which does not require anything else to make it work
- Web based
- Desktop

## **CRS AND SRS**

- CRS is customer requirement specification and SRS is system requirement specification

## **MOST COMMON RISK ASSOCIATED WITH PROJECT FAILURE**

- Shortage of time
- Shortage of skilled resources
- Limited budget
- Absence of stable environment

## **WHAT IS WBT**

- WBT stands for white box testing also known as transparent testing, open box, clear box
- WBT is used to check code efficiency,
- What is included in WBT
  - Statement coverage
  - Path coverage
  - Loop coverage
  - Memory pool

## **BBT**

- Black box testing, here we do not test code
- BBT can be divided in two types
  - Review / static testing
  - Dynamic testing
- Dynamic testing can be divided into two types
  - Functional
  - Non-Functional

## **WHAT IS INTEGRATION TESTING**

- Testing the relation between the features for example
- If we have deleted the data from the front panel of the website
- It should be reflective and deleted from the data based as well
- TYPES OF INTEGRATION TESTING
  - Incremental integration testing
  - Non-incremental integration testing

## **WHAT IS DIFFERENCE BETWEEN LATENT AND MASKED**

- Latent: those defects which are present already in the system and but they do not disturb the functionality of the software
- Masked: those defects which are hidden behind some other kind of defect

### **CODE WALKTHROUGH**

- Informal way of checking the code
- Two things we check
- Logic is correct
- Proper coding standards are implemented

### **WHAT IS REQUIREMENT TRACEABILITY MATRIX**

- Define the requirement given by the customer
- Can be of three types
- Forward
- Backward
- Bi-directional

### **BOUNDARY VALUE ANALYSIS**

- Checking difference types of range that we can input in the product is boundary value analysis
- EQUIVALENT PARTITIONING

### **TESTING LIFE CYCLE**

- System study >> prepare test plan >> prepare test cases >> prepare RTM >> execute test cases

### **EXIT CRITERIA**

- Defined when the testing will be stopped
- It's a guide to the tester to understand when to stop the testing
- BUILD FAILURE
- LOGIN FAILURE
- APP CRASH
- NO DATA IN APPLICATION FLOWING
- FAILED SMOKED TESTING

### **CROWSOURCED TESTING**

- Giving out the software of bunch of peoples, they will use the software and provide us feedback

## **DIFFERENCE BETWEEN POSITIVE AND NEGATIVE TEST CASES**

- Positive testing when we put the value within the specified developer range
- And also, combination
- NEGATIVE WHEN WE KNOW that is out of scope product range but we still put it to understand and check the software

## **REGRESSION TESTING**

- TESTING TYPES
- FUNCTIONAL
- Integration
- User acceptance
- Unit
- System
- Regression

## **NON-FUNCTIONAL**

- Installation
- Documentation
- Performance
- Security
- Radiality

### **TEST DUTY**

Day to day testing

Reporting the bugs

Retesting the bugs

### **ROLE OF TEST MANAGER**

- Getting the testing project from client or stakeholder
- Documenting
- Test plan with test lead
- Resources providing
- Testing

### **Qualities of a good tester**

- Keeping a sharp eye
- Good understanding of application
- Good domain knowledge

### **WHAT IS REGRESSION TESTING**

The start of the program we check if any new code which is added is not affected the already running

functionality

### **Smoke Testing:**

Smoke testing is the first testing that takes place for testing in this testing, if the basics functionality does not run properly then the whole testing cannot be taken place

**Performance Testing:** checking 2 things

- Response time
- Throughput

**Performance testing can be of 3 types**

**Volume**

**Stability**

**Load**

**Stress**

### **LOCALIZATION TESTING**

- Checking application feature which are related to localization

### **What is a/B testing**

- Okay to do a/ b testing we define two groups
- Set A is given the same test cases as Set B
- Both will check the application and we will see what difference in testing output

### **RISK BASED TESTING**

- Testing software priority having high priority of failure

### **TEST COVERAGE TECHNIQUE**

- Decision branch
- Path coverage
- Branch coverage
- Function coverage

### **TEST PLAN STRATEGIES**

- Test objective
- Scope
- Resources
- Test Delivery
  
- Test Cases: series of action executed to test the application
- Test Scenario: set of test cases
- Test script: include instruction on how the test case can be executed
- Test reports: objectives + activities+ result

### **BEST PRACTICES IN TESTING**

- Think out of box
- Think like a client
- Start early

### **20 RULES**

Mostly it is said that the 80 percent of defect is present in 20 percent of code

## **HOTFLIX**

- A product which is already release then there are some bugs or error showcasing
- We stop the already going testing and developer fix the bug and we test the application again
- This is called as HOTFLIX

## **AGE OF DEFECTS**

- The number of days the defect is assigned to the developer team
- And the number of days the defect is closed by the developer

## **DEFECT TRACKING**

- Monitoring the defect, entire system and keeping track of the defect

## **IMPACT ANALYSIS**

- Meeting discussion
- The impact of newly added code in the system

## **Scenario**

- POSITIVE / NEGATIVE

## **WHAT IS QUALITY**

- Degree of excellence

## **PERFORMANCE**

- ACHIEVEING continuous preferred result is most effective and efficient manner

## **EXPLORATORY TESTING**

- Exploratory testing is usually done by gaming application
- We explore the application to find any kind of bugs

## **ERROR GUESSING:**

- being expertise in a testing, we are we start guessing
- (this require domain knowledge, therefore these two testing is done by expert)

## **DEFECTS**

- Refers to trouble to the software m internal feature of external
- Failure
- The functionality failed to perform the task

## **FAULT**

- A false step, process of data defines in a software

## **ERROR**

- Error is generated by humans which basically lead to wrong / failed output
- Error can be misinterpretation and misunderstanding

## **WHAT SHOULD TESTER SHOULD DO BEFORE TESTING**

- Understanding the requirement
- Domain knowledge
- In scope and out of scope functionality

- What types of testing need to be performed

### **Different test environment**

Test data

### **STATIC TESTING**

No execution, only reviewing, inspection work though is done

### **WALKTHROUGH**

- Author are leader other are participant
- Informal
- Objective is to find bugs

### **INSPECTION**

- Every participant has a decided role
- Formal
- To improve quality

### **WHAT ARE SECURITY TESTING CHECKS**

- Authorization
- Access control
- Encryption and decryption

### **HOW TO CHECK DESKTOP APPLICATION**

- Installation testing
- Uninstallation testing
- Functional
- Compatibility
- Performance

### **WHAT IS BBT**

- Also known as behavioral testing
- Internal structure, review, inspection
- Because for the tester the application is a like a black box who's internal is not known

### **What we check for black box testing**

- Incorrect or missing function
- Interface error
- Error in data structure or external database
- Behavior or performance
- Initialization and termination

### **SANITY TESTING**

- Stable build
- Minor changes or bugs
- It is a subset of regression testing

### **BBT INCLUDES**

- Requirement based testing
- Positive or negative testing

- Boundary value analysis
- Decision table
- Equivalence partition
- User documentation technique
- Graph based testing

### **Compatibility Testing**

- Hardware
- Software
- Mobile Devices
- Network
- Other software and version

### **Compatibility Testing**

- Backward compatibility
- Forward compatibility
- Tools

### **Compliance Testing**

- Testing to check whether the developed software meets the requirement rules and regulation

### **Conformance Testing**

- Informal way of testing, less precise and not very accurate

### **INTGREATION TESTING TYPES**

- Top down
- Bottom up

### **Graph based testing**

- Also known as state-based testing, used to represent transaction and work flows

### **RECOVERY TESTING**

- System aimed at verifying the system ability to recover from failure
- Extension of error handling testing
- Checking whether the software can recover from abnormal situation or not

### **DATA VOLUME TESTING**

- Purposely subject a system (both hardware and software)
- To find out weakness in a system in respect to handling large volume of response

### **Usability Testing**

- Goal is to discover needs and expectation of user

### **TYPES OF TEST PLAN**

- MASTER TEST PLAN
- INTREGRETION TEST PLAN
- UNIT TEST PLAN
- SYSTEM TEST PLAN
- ACCEPTENCE TEST PLAN S

### **SCOPE**



- What is included
  - What will not be included
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- **SSD: SYSTEM STUDY DOCUMENT**
  - **FSD: FUNCTIONAL SPECIFICATION DOCUMENT**
  - **ADS: ARCHITECTURE DESIGN SPECIFICATION**
  - **DDS: DETAILED DESIGN**

What are types of testing where review is done

Walkthrough

Inspection

Code review

Pair programming

Technical review

Defect Leakage: to determine the efficiency of software by checking the defect that are not identified or missed

DATABASE TESTING: checking the database entered into the application and whether its is matching the GUI

**COMMON DEFECTS:**

- INCORRECT FUNCTIONALITY
- INCORRECT DATA EDITS
- POOR PERFORMANCE
- POOR SECURITY
- INCOMPATIBILITY
- POOR UI
- POOR USABILTY

**Exhaustive testing**

- Testing with all the possible input and output are know as exhaustive testing

**Pesticide paradox:**

- if prepared test case is not finding any defect, then revise the test cases

**FALLOCY:**

- fallacy is we claimed that the product is 100 percent bug free

**Reviews:**

examining the work is known as review

**DOR: DEFINATION OF READY**

**GLOBALIZATION TESTING:** Checking whether the software support multiple standard or not

**TEST HARNESS:**

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