

## \* Retesting :- [confirmation Testing]

- Retesting is done to determine whether the identified defect is successfully removed or resolved it or not. also we called as confirmation Testing.
- Re-testing is the method of re-executing same build / application with multiple test data.
- In Retesting we check the fail test cases are executed properly or not after defect get fixed.
- In Retesting only fail test cases are checked.
- Retesting is carried out before regression testing.
- Retesting mostly happens two times:-
  - ↳ Before we logged defect will do retesting.
  - ↳ After developer solve defect we do retesting.
- We do retesting when developer solve defect in which we check that system is working well for the test cases and on some test data.
- process for Retesting is as follows

We do Retesting and got a defect

We log that defect and update status "fail" for that test case

Defect ID will get generated

Then it will send to developer and he solve that defect

Again we have to perform retest to ensure that it work well.

## \* Regression Testing :-

- As defects are fixed or new functionality get added into the application, it becomes necessary to check that there is no impact of these changes on the previously working functionality of the unchanged component.
- Regression testing is carried out to determine whether the change component has affected the functionality of the unchanged component.
- For Regression testing only passed test cases are to be considered.
- Regression testing can be done parallelly with Retesting.
- In Regression testing High priority (+ve) test cases are going to check.
- Regression testing happens two times :-
  - 1) During system Integration testing
  - 2) After completion of SIT and UAT.
- The aim of Regression testing is to check whether newly corrected system is working well and impact of this system on other modules.
- What actually will do in Regression testing :-
  - i) If any new scenarios get added then instead of doing SIT on that we do regression testing.
    - scenario means add +ve before mobile no. is scenario so instead of doing SIT we do regression testing.
  - ii) Check all the fail test cases
    - We have to ensure that newly corrected module/system is working well, so for that will do regression testing.
  - iii) High priority test cases
    - When we move SIT to UAT will first test high priority test cases. (i.e. High priority means related to main functionalities)
    - If time permits then will go to check medium and low priority test cases.

## \* User Acceptance Testing :- [Done by End User / customer]

- UAT is a final stage of testing before the system is accepted for operational use.
- Acceptance criteria based on "User Requirement documents".
- UAT is the process of collecting feedback from customer, so this we also called as "End-to-End Testing".
- HSIT will accept change request in UAT as well.
- What happen in UAT exactly :-
  - i) After completion of SIT (System and Integration testing) will start with the UAT.
  - ii) But before starting to UAT we have to do firstly retesting and regression testing.
  - iii) Among all user stories, User will decide how many user stories they want to test from the tester.
  - iv) So after deciding the user stories, tester checks all the test cases regarding with the user stories.
  - v) User / customer can change test data.
  - vi) It is totally depends on customer / its customer will to send the Application on production / operational use.
- User Acceptance testing has two types as follows:
  - 1) Alpha Testing
  - 2) Beta Testing

### ④ Alpha Testing :-

- Generally Alpha testing happens in service base company.
- Alpha testing happens for service based application.
- Alpha testing conducted in controlled environment. (i.e. conducted in front of tester, developer and customer.)
- Real customer are involved like HDFC, IDBI, ICICI etc.

## 2) Beta Testing :-

- Beta testing happen in product base company.
- Beta testing conducted in uncontrolled Environment (means Uncontrolled environment means within organization tester do testing.)
- Uncontrolled Environment means developer and tester are worked in same Environment and customer / users are used application in different environment.
- as production base company have their own product to develop so they are directly giving to the end user for access it and get feedback from them, so according to the suggestions they will implement in product.

## \* Testing Terminologies :-

There are three testing terminologies they are as follows:-

- 1) Monkey Testing / speed testing
- 2) Exploratory Testing
- 3) Ad-hoc Testing

### 1) Monkey Testing :-

- When we have lot of test cases to execute but don't have enough time to do execution of each test case so that time we use "Monkey Testing".
- When developer find difficulty to solve bug, then that time developer take extra time to resolve the bug is called "Blocker defect".
- So in this blocker defect situation to overcome it will mostly prefer the monkey testing.
- In short we can say that this is solution for this kind of situations.

- In this monkey testing we check basic functionalities with respect to the customer requirement.
- In monkey testing generally we focused on High priority test cases as well as more concentrate on positive test cases.
- If time permits then will check the medium and low priority test cases.
- Also we can say Random functionality testing will done in this Testing.

## 2) Exploratory Testing :-

- When we are not aware about the application but we have SRS, test case, test case data so at that time we prefer "Exploratory Testing".
- As we have SRS document so according to the document we do step-by-step execution of test cases in exploratory testing.
- In Exploratory testing we focus on positive as well as Negative sinurfaces.

## 3) Ad-hoc Testing :-

- When we aware about Application and we have test cases but do not have test case data in this situation we do "Ad-hoc Testing".
- In Ad-hoc Testing we have to check positive and Negative Sinurfaces.
- In this testing we log small to large defect / Issue.
- It is testing without planning and documentation.
- It can be done based on early experimental steady.
- The tests are intended to plan to be run only once, unless a defect is discovered.

## \* Severity and Priority :-

- 1) Severity :- severity is a parameter which is used to show the impact of a particular defect on the software.
- severity is a seriousness of defect with respect to functionality.
  - In severity we can say that how defect is affecting the functionality.
  - There are some categories of severity they are as follows:-

- 1) critical
- 2) major / High
- 3) medium
- 4) minor / Low

1) critical :- Like application not starting, Application hangs, Application Abnormally terminates etc.

2) major High :- function is not working according to the specification

3) medium :- Incorrect error message

4) Low :- spelling mistake, grammatical errors etc.

2) Priority :- priority is a parameter to decide the order in which defect should be fixed.

- In priority how fast defect has to be fixed.
- It means prioritized defects based on business needs.
- There are some categories of priority are as follows:-

- 1) High
- 2) Medium
- 3) Low

- priority is importance of defect with respect to customer requirements.

1) High :- Must get fixed before the product release.

2) Medium :- Should be fixed if time permits.

3) Low :- Would like fixed but can be release as it is; if needed.

- Without solving this defect we cannot move to the next stage.

- examples :-

1) If paytm application do not have symbol then

High priority

Low severity → because it do not affect working.

2) If submit button do not work

High priority

High severity

3) If submit button work properly but colour is different

High priority

Low severity → because it do not affect working

## \* Test scenarios :-

- A Test scenario is defined as any functionality that can be tested. It is also called Test condition or Test possibility.
- As a tester we have to put ourselves in the end user aspects and figure out the real world scenarios of the application which is under test.
- In test scenario we focus on "What to test".
- It is a functionality, in which one scenario consists of multiple test cases.

## How to write test scenarios :-

- Step 1:- Read the requirement document like BRs, SRS, FRs of the system under test.
- Step 2:- For each requirement, figure out possible user actions and objectives.
  - Determine the technical aspects of the requirement.
- Step 3:- After reading the Requirements Document and doing analysis, list out different test scenarios that verify each feature of the software.
- Step 4:- Once you have listed all possible test scenarios, a Traceability Matrix is created to verify that each and every requirement has a corresponding test scenarios.
- Step 5:- The scenarios created are reviewed by your supervisor (test lead).
  - after that review by other stakeholders in the project.

- Scenario means ways to achieve requirements.
- If we have requirements and desired output then, how to achieve it, we have many ways, so for those ways we call them "scenarios".

- We only write positive test scenario but while checking we also check Negative scenario.
- Test scenario is any functionality that can be tested.
- Test scenarios are derived from test artifact product backlog Sprint backlog , userstories.
- Test scenario requires fewer resources and time for test execution.
- Test scenario includes an end-to-end functionality to be tested.

## # Scenarios :-

- 1) Test Cases for "PEN" :-
- i) To check if the pen works in continuous writing.
  - ii) Verify if you are able to hold pen comfortably.
  - iii) Verify if pen writes smoothly.
  - iv) Verify if pen can write on variety of paper i.e rough, smooth, glossy etc.
  - v) Verify if line drawn by the pen is as per expectation.
  - vi) Verify if ink does not get dry if pen is open for sometime.
  - vii) Verify the colour of ink should be constant from start to end.
  - viii) Verify quality of material from which pen is made.
  - ix) Verify if ink and material of pen is non-toxic.
  - x) Verify if name of company should be visible clearly or not.
  - xi) Verify if name written on the pen should not get erode easily.
  - xii) Verify waterproof ink.
  - xiii) Verify if other refills fits to pen or not.
  - xiv) To check if pen operates if the tip is held facing vertical position for long time.
  - xv) To check the capacity of tip by putting the tip in the water and then trying to write with it.
  - xvi) To check if tip of pen works fine while writing on hand.

### 8) Test scenario on "BOTTLE" :-

- 1) To check the size of bottle.
- 2) To check which type of material used for making bottle.
- 3) To check the leakage occurs in the bottle.
- 4) To check the size of cap of the bottle.
- 5) To check the capacity of the bottle.
- 6) To check the water temperature control of the bottle.
- 7) To check the flow of the water is easy and continuous.
- 8) To check the bottle is working with warm water.
- 9) To check the bottle is easy to move from one place to another.
- 10) To check the bottle tab is fit for it or not.
- 11) Check the brittleness of the bottle material.
- 12) Check if the expiry date is clearly mentioned or not.
- 13) Verify the maximum temperature of the liquid allowed.
- 14) Verify the minimum temperature of the liquid allowed.
- 15) Check if the bottle is with a sipper or without a sipper.
- 16) Verify that the dimensions of the bottle as per the specifications.

### 8) Test scenarios on "FAN" :-

- 1) Check the type of fan - whether the fan is ceiling fan or table fan.
- 2) Verify the Number of blades on the fan.
- 3) Verify the ON-OFF functionality of the fan.
- 4) Verify if the fan works normally - throws wind in the right direction.
- 5) Verify the material of which fan's blade and other parts are made.
- 6) Check the Voltage / power requirement of the fan.
- 7) Verify the maximum speed of fan.
- 8) Check the minimum speed of the fan.

- 8) Verify that the speed of fan can be regulated using regulator.
- 9) Verify that when in motion, the fan should not wobble.
- 10) check the length of fan rod and blade.
- 11) Verify that the weight of the fan is as per the specifications.
- 12) Verify that the colour of the fan is as per the specification.
- 13) check the effect of the voltage fluctuation on fan when in motion.
- 14) check if there is any lifetime of fan's internal part or the body.

#### 4) Test scenarios on "MOBILE KEYPAD" :- (Keypad mobile)

- 1) Verify that mobile has 0-9 buttons are present or not.
- 2) Verify that by pressing those buttons we can enter number or not.
- 3) Verify that by dialling call button after dialling number we can make call or not.
- 4) Verify that whether we can type sms or not.
- 5) Verify that whether we can receive sms or not.
- 6) Verify that whether we can receive call when phone is unlocked.
- 7) Verify that whether we can receive call when phone is locked.
- 8) Verify that when user end call when phone is locked, it should not unlock the phone.
- 9) Verify whether the phone get unlocked by using password.
- 10) Verify whether the phone get unlocked without using password or not.
- 11) Verify the screen enough brightness or not.
- 12) Verify whether the phone shows dialed number list or not.
- 13) Verify where the phone store sms or not.
- 14) Verify whether user can call person using phone Book.
- 15) Verify whether phone has mention memory in phone specification.
- 16) Verify dimension of screen as per specification or not.

- 5) Test scenarios for "computer login page":-
- 1) Enter Valid email address and click on next. Verify user can get option to enter password.
  - 2) Enter Invalid email address and click whether if system shows correct error message.
  - 3) Do not enter any email address, click on next button and Verify whether it shows error message and highlight the email box.
  - 4) Enter Valid mobile Number and check whether user can get option of enter password.
  - 5) Enter Invalid mobile Number and check whether system shows correct error message.
  - 6) Leave mobile number field empty and check whether system shows correct error message and highlight the box.
  - 7) Verify if user can log in with Valid email Id and Valid password.
  - 8) Verify if user cannot log in with Valid Email Id and wrong password.
  - 9) Verify if user can log in with Valid mobile Number and Valid password.
  - 10) Verify if user cannot log in with Valid mobile number and wrong password.
  - 11) Verify forgot email functionality.
  - 12) Verify forgot password functionality.
  - 13) Verify keep me remember box (checkbox) is available or Not.
  - 14) Verify sign up form is available for new account-create users.
  - 15) Verify that user again login with setting password after forgot password process.

6) Test scenarios for "Signup page of Gmail":-

- 1) Verify that special characters and symbols, numbers are not allowed in first name.
- 2) Verify that first name should accept string having characters only.
- 3) Verify that on leaving first name blank, system should show correct error message.
- 4) Verify that special character, number and symbols are not allowed in last name.
- 5) Verify that last name field should accept string having characters only.
- 6) Verify that leaving last name field empty, system should show error message.
- 7) Verify that system should show email Id suggestion.
- 8) Verify that system should not show duplicate email Id suggestion.
- 9) Verify that system should not show duplicate email Id suggestion.
- 10) Verify that system should show error message and highlight mandatory field if leave it blank.
- 11) Verify that password and confirm password field should have same string.
- 12) Verify if password and confirm password have different strings then error message should get display.
- 13) Verify that system should show strong password suggestions.
- 14) Verify that mobile Number field accept only numeric values.
- 15) Verify when clicking on signup button if mandatory fields are filled, then system should open otp page.
- 16) Verify that if any mandatory field leave or it is then system can not do sign in.
- 17) Verify that on entering correct otp, user should get logged into the account.

ii) Test scenarios on "ATM machine" :-

- i) Verify that insertion of card by the user is as per specification.
- ii) Verify that the machine do not accept expire card.
- iii) Verify that on Insertion of correct card machine do not show enter pin option directly.
- iv) Verify that on insertion of card machine shows select language option.
- v) Verify that touch of machine screen panel should be soft and correct.
- vi) Verify that on selecting, particular language next options should be in that language except numbers.
- vii) Verify that after selecting language machine should show enter pin option.
- viii) Verify that on entering correct pin, system should show bank account detail option like balance inquiry, withdrawal.
- ix) Verify that on entering incorrect pin system should show error message.
- x) Verify that there should be limited number of attempts for entering password.
- xi) Verify that after exceeding limited attempts, there should be application of standard procedure like card blocking.
- xii) Verify that pin entering procedure should be encrypted.
- xiii) Verify that after entering correct pin, select Account type option should be available for user.
- xiv) Verify that after selecting any option bank account details option should be available for user.
- xv) Verify that whenever user enter amount it should be as per specification means min & max limit.
- xvi) Verify that user cannot withdrawal amount of money greater than the amount of money present in account.

### 8) Test sinario on "google meet" :-

- 1) Verify that joining meeting table working or Not.
- 2) Verify that whether we are clicking on present Now (your screen) option so it will share or Not.
- 3) To check whether there is any issue regarding camera while starting the google meet.
- 4) To check whether the people can hear you or Not while you start your microphone (mic).
- 5) To check whether the Vedio and Audio quality of google meet application.
- 6) To check whether google meet synchronize with Gmail app or Not.
- 7) To check whether that meetings get Recorded or Not.
- 8) To verify whether we start with google meet so laptop is overheating or maintain laptop temperature.
- 9) To check whether it will create a new code for new joining meeting.
- 10) To check whether that cannot join or create Vedio calls from chat conversations.
- 11) To check whether it is display scedule meetings or not.
- 12) To check whether we select an option share entire screen so it will ask for selecting window pop up and then share or not.
- 13) <sup>To check</sup> whenever we start with meetings so is there any issue found like "Not Responding" or Not.
- 14) To check whether the google meet application starts without internet connection or Not.
- 15) To verify that how many people are join at a time on google meet code.
- 16) To check whether google meet generate a meeting code or Not.

8) "Test scenario" on "Login page for mobile":-

- 1) Verify that user can log in with valid username and password.
- 2) Verify that user can not log in with invalid username and valid password and show correct error message.
- 3) Verify that user cannot log in with valid username and invalid password and show correct error message.
- 4) Verify that keep me sign in button functionality i.e after existing the application user should not get logged out from account.
- 5) Verify that keep me sign in button is unchecked by default.
- 6) Verify forgot username functionality.
- 7) Verify forgot password functionality.
- 8) Verify facebook button functionality if user can log in with social media account credential.
- 9) Verify if login button fits to mobile screen or not.
- 10) Verify that user cannot log in with blank credentials.
- 11) Verify that user cannot log in with incomplete email address.
- 12) Verify that application should ask for login to enter into the application.

10) Test scenario on "BIKE":-

- 1) Verify if the bike is electric start, kick for start or both at a time.
- 2) Verify if the bike start smoothly with all starting option.
- 3) Verify amount of pressure required for kick start.
- 4) Verify that bike run smoothly and attain desire speed as per specification.

- 5) Verify pickup of bike.
- 6) Verify down shifting of gear.
- 7) Verify up shifting of gear.
- 8) Verify if bike run in all weather condition.
- 9) Verify if bike can run on all types of road.
- 10) Verify if bike can run on ramp or slope.
- 11) Verify if bike both breaks working correctly.
- 12) Verify sound of bike is under standard decible limit.
- 13) Verify pollution created by bike is within the limit.
- 14) Verify clutch of bike works properly.
- 15) Verify colour of bike is as per specification.
- 16) Verify name of company on bike.
- 17) Verify fuel capacity of bike.
- 18) Verify type of fuel required for bike.
- 19) Verify bike condition when air pressure in both tyres are same.
- 20) Verify bike condition when air pressure in both tyres are not same.
- 21) Verify indicator of bike is working.
- 22) Verify indicator light of bike is working.
- 23) Verify head lamp and tail lamp of bike is working.
- 24) Verify whether bike has reverse oil.
- 25) Verify bike has engine oil.
- 26) Verify alignment of both wheels of bike.
- 27) Verify any coating on bike colour to protect from sun.
- 28) Verify the tire rubber quality.
- 29) Verify if the bike works on diesel or Not.
- 30) Verify that how much area cover by bike front light.
- 31) check whether press on break back light shows with blink with red colour or Not.

## 11) Test scenarios on "CALCULATOR" :-

- 1) Verify type of calculator whether it is specific or normal calculator.
- 2) Verify calculator has all the buttons present.
- 3) Verify text written on the button should be readable.
- 4) Verify battery of calculator whether it on dry cells or on solar power.
- 5) Verify if calculator remain non-functional for some time then should get turn off automatically.
- 6) Verify screen / display of calculator whether it show input correctly.
- 7) Verify body material of calculator.
- 8) Verify spacing between buttons, they should not be too close to each other.
- 9) Verify arithmetic operators working of calculator.
- 10) Verify pressure required to press buttons, it should not be more.
- 11) Verify memory functionality of calculator.
- 12) Verify Navigation through previous operation result.
- 13) Verify that c button should cancel the operation.
- 14) Verify on-off button functionality of calculator.
- 15) Verify limit of digit acceptance by calculator.
- 16) Verify correctness result of operation shown by the calculator.
- 17) Verify that user can delete digits by pressing backspace key.

## 12) Test scenarios on "ELEVATOR (LIFT)" :-

- 1) To check how much weight Elevator can take to go up.
- 2) To check how weight lift can take down with respect to specified weight.

- 3) To check how much time it takes to reach every floor.
- 4) To check how much time it takes from the top of the building to the ground floor.
- 5) To check the lift gets blocked when more than 1 floor makes request.
- 6) To check the lift shows right number on the floor.
- 7) To check the people inside lift when the power failure happens.
- 8) To check when the lift takes more people than capacity.
- 9) To check by creating smoke or fire inside lift and check the response.
- 10) To check while pressing open button when the lift is moving.
- 11) To check by pressing stop button before reaching the specific floor.
- 12) To check whether lift starts to go from up to down so if it will shows the ↓ arrow with red pixel or not.
- 13) To check whether the lift exceeds the weight limit so how it will behave.
- 14) To check If light failure and lift stuck in between floors (2) so can we able to press horn button.
- 15) To check whether elevator works properly on inverter backup.

### 13) Test situation on "chair":-

- 1) Verify that the chair is stable enough to take an average human load.
- 2) Check the material used in making the chair - wood, Plastic etc.
- 3) Check if the chair's legs are level to the floor.
- 4) Check the usability of chair as an office chair, normal household chair.
- 5) Check if there is back support in the chair.
- 6) Check if there is support for hands in the chair.

- 8) Verify the paints type and colour.
- 9) Verify if the chair material is brittle or not.
- 10) check if cushion is provided with chair or not.
- 11) check the condition when washed with water or effect of water on chair.
- 12) Verify that the dimension of chair is as per the specification.
- 13) Verify that the weight of chair is as per requirement.
- 14) check the height of the chairs seat from floor.

#### 14) Test cases on "Table" :-

- 1) Verify that the dimension of the table is as per the specification.
- 2) Verify that the weight of the table is as per the specification.
- 3) check the height of the tables seat from the floor.
- 4) Verify that the table is stable enough to take a specified load.
- 5) check the material used in making the table wood, plastic etc.
- 6) check if the table legs are level to the floor.
- 7) check the usability of the table as an office table, normal household table.
- 8) Verify the paints type and colour.
- 9) Verify the tables material is brittle or not.
- 10) check if the cushion is provided with a table or not.
- 11) check the condition when washed with water or the effect of water on table.

#### 15) Test cases for "Watch" :- (clock)

- 1) Verify the type of watch - analog or digital.
- 2) In the case of an analog watch, check the correctness time displayed by the second, minute and hour hand of the watch.
- 3) In case of a digital watch, check the digital display for hours, minutes and seconds if correctly displayed.

- 4) Verify the material of the watch and its strap.
  - 5) check if the shape of the dial is as per specification.
  - 6) Verify the dimension of the watch is as per the requirement.
  - 7) Verify the weight of the watch.
  - 8) check if the watch is waterproof or not.
  - 9) Verify that the numbers in the dial are clearly visible or not.
  - 10) check if the watch is having a date and day display or not.
  - 11) Verify the colour of the text displayed in the watch - time, day, date and other information.
  - 12) Verify that clock's time can be corrected using the key in case of an analog clock and buttons in case of digital clock.
  - 13) check if the second hand of the watch makes ticking sound or not.
  - 14) Verify if the brand of watch and check it is visible in the dial.
  - 15) check if the clock is having stopwatch, timer and alarm functionality or not.
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- 16) Test case and situation on "Ac" :- (Air conditioner)
    - i) Verify the time it take to start when plug in and press on button.
    - ii) Verify how much time Ac take to start cooling.
    - iii) Verify for water leakage when Ac get started.
    - iv) Verify the Ac on and off button working or not (from remote and button on Ac body)
    - v) Verify the Ac light (red bulb) is on or not and bulb blink or not when plug in.
    - vi) Verify all the Ac function one by one whether they are working or not.
    - vii) Verify remote function they are working or not by pressing all button.
    - viii) Verify the Ac cooling by setting min and max temperature.
    - ix) Verify when Ac cooling is off only sample Ac fan is on.
    - x) Verify the Ac cooling with different temperature.