Functional testing:

🡪nothing but behavior of application.

🡪talk about how your feature should work.

🡪focus is not on UI elements.

🡪focus is on functionality if element.

1 – object property testing

🡪What is object?

🡪Every element on web page is object.

🡪object have property.

e.g.

1)Text Box

property -- Enable or Disable

2) Radio button

property -- choose between 2 like male, female.

3) list box

property --can select any one option from given options.

4) combo box

property -- select multiple options.

e.g. login form

2 -- Database testing –

🡪Need basic SQL language.

🡪As Functional tester we do basic testing.

🡪Focusing on DML (Data Manipulation Language) operations🡪Insert, Update, Delete, Select.

🡪In database, data stored in table format.

Emp data store in emp\_table

Stud data store in stud\_table

🡪Testing database using UI, is it working fine or not.

🡪communication between UI and Database is working fine or not.

🡪Testing UI is black box testing.

Testing database is white box testing.

combination of Black box and White box testing is called grey box testing.

3 -- Error handling

🡪focus on error handling.

🡪when you do some incorrect operation on UI, Application should display error message.

🡪verify error messages on UI.

🡪Error messages should be in readable format, simple language, user understandable language.

e.g Input 🡪 Wrong Username, password.

Error Message – Wrong Username, or Password

4 -- Calculations/ Manipulations testing

🡪this type of testing is used in applications like financial, banking apps

e.g. Total = 50,000

send = 20,000

Bal =30,000

These types of calculations are properly working are not

5 -- Link existence & link execution

🡪where exactly links are placed that is called link existence

🡪tests that, links are navigating to proper page or not.

* **Internal link**

Click on link ---- jump on same page but another section

* **External link**

click on link ---- jump on another page

* **Broken links**

Link is present but it doesn’t have any action.

Click will not have any target page

Developer place broken links for future purpose so that the will use it

6 -- Cookies and sessions

**cookies**

Done only for web applications.

Testing that weather browser is saving cookies or not.

**Sessions**

Created on server side

Not using application for some time then sessions will be expired.

Non-functional testing

🡪Once functional testing is done we do nonfunctional testing

🡪focuses on customer expectation not requirement.

Performance testing

🡪 speed

🡪How well my application will respond at a time, while using so many people at a time

1. Load testing

🡪slowly increase the load on s/w

1. Stress testing

🡪suddenly increase/decrease the load and check the speed of application

🡪e.g. flip kart, amazon website when its big billion days sale going on

1. Volume testing

🡪how much data our application will handle.

We use some tools to do this kind of testing

Tools – J meter

1 to 10 users ok

20 to 50 users slower

50 to 500 users server down

How we calculate Performance

Some Metrix are there to measure the performance

=>Response time, through put, process time using these metrics they calculate performance.

Security testing

How well our application will be secured?

e.g. Banking Apps from Hackers.

Require separate skill set of people.

Authentication – users are valid or not.

Authorization – Valid users – doing some actions on page.

Only valid users can access permeation .

Recovery testing

Application is having recovery feature or not.

If by mistake you loose some data or do some incorrect actions or in correct transactions.

e.g. Gmail

compose mail ----- internet connection down/ shut down pc.

mail is saved in drafts is called recovery.

Compatibility testing

🡪application is compatible with different environment.

Forword compatibility testing

e.g. s/w version 1.0.1 is compatible with windows 10

new release version 1.0.2 is compatible with windows 10

Backward compatibility testing

e.g. s/w is compatible with windows 10

while we already have windows 11

Hardware compatibility testing/(configuration testing)

Verify our s/w is compatible with hardware requirement given by customer.

Support windows 10 or not

Support windows 11 or not

Support Linux or not

Support on 4GB ram or not etc.

Installation testing

Test installation process

Each and every page is visible or not .

Each page is properly navigating or not.

Checks screens are clear to understand.

Un-installation process

Uninstallation is done properly or not.

Some files may be left in machine or not.

If some files are left & again we try to install the app we will get msg that s/w is already installed.

Sanitation / Garbage testing

s/w is working fine with respect to customer requirement.

Suppose some additional functionality will be provided in application uou will find it bug or not -🡪 yes it is a bug

We should tell developer remove that functionality it is called Garbage testing

Extra feature added will not be acceptable.