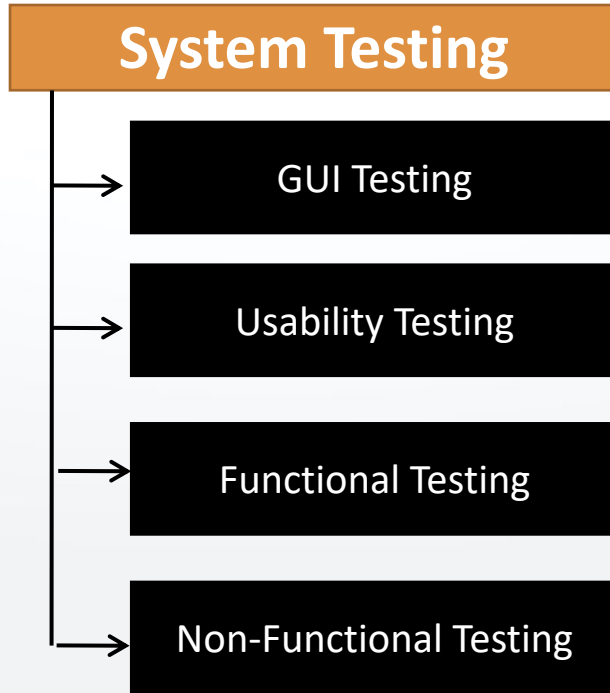


SESSION 4

System Testing Types



System Testing Types

1. GUI Testing:

- What It Checks: Makes sure all buttons, icons, and screens in the software look and work as they should.
- Example: Clicking buttons, checking if the layout is correct.

2. Usability Testing:

- What It Checks: Tests if the software is easy for people to use and understand.
- Example: Checking if the menus are clear, and tasks are straightforward.

3. Functional Testing:

- What It Checks: Verifies that each part of the software performs its job correctly.
- Example: Testing if login, search, and other functions work as intended.

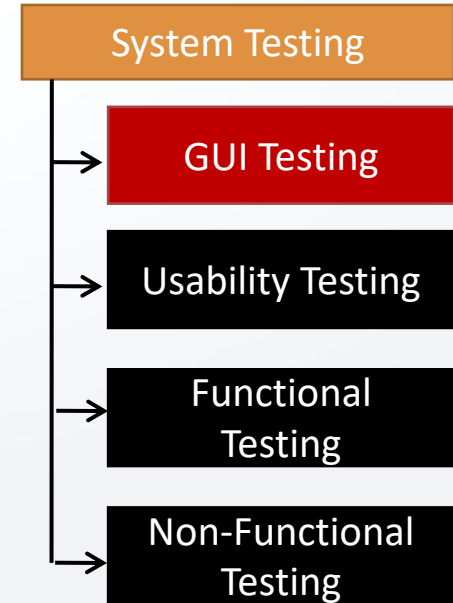
4. Non-Functional Testing:

- What It Checks: Looks at aspects beyond specific functions, like performance, security, and how easy it is to recover from errors.
- Example: Checking how many users the system can handle at once (performance testing), or testing how secure the system is against unauthorized access (security testing).

GUI Testing

GUI testing, or **Graphical User Interface** testing, is a type of software testing that focuses on verifying the functionality and usability of the graphical elements of a software application.

It involves testing the user interface components such as buttons, menus, icons, and any other visual elements to ensure they work as intended and provide a positive user experience.



GUI Testing Checklist

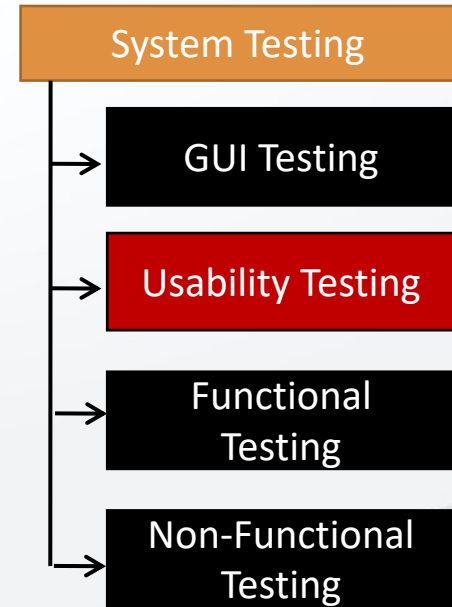
- Testing the size, position, width, height of the elements.
- Testing of the error messages that are getting displayed.
- Testing the different sections of the screen.
- Testing of the font whether it is readable or not.
- Testing of the screen in different resolutions with the help of zooming in and zooming out.
- Testing the alignment of the texts and other elements like icons, buttons, etc. are in proper place or not.
- Testing the colours of the fonts.
- Testing whether the image has good clarity or not.
- Testing the alignment of the images.

GUI Testing Checklist

- Testing of the spelling.
- The user must not get frustrated while using the system interface.
- Testing whether the interface is attractive or not.
- Testing of the scrollbars according to the size of the page if any.
- Testing of the disabled fields if any.
- Testing of the size of the images.
- Testing of the headings whether it is properly aligned or not.
- Testing of the colour of the hyperlink.
- Testing UI Elements like button, textbox, text area, check box, radio buttons, drop downs ,links etc.

Usability Testing

- During this testing validates application provided context sensitive help or not to the user.
- Checks how easily the end users are able to understand and operate the application is called usability testing.

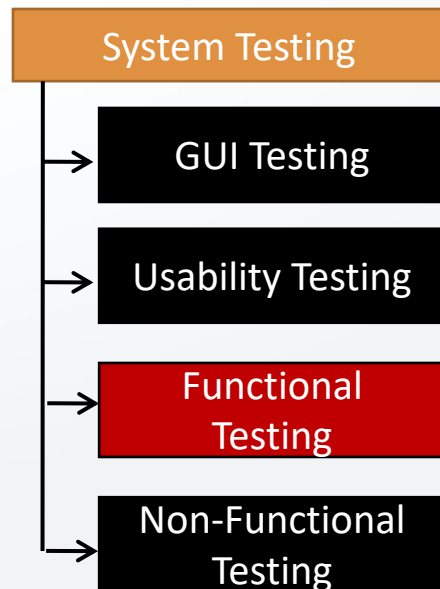


Functional Testing

- Functionality is nothing but behavior of application.
- Functional testing talks about how your feature should work.

Functional Testing types

1. Object Properties Testing
2. Database Testing
3. Error Handling Testing
4. Calculations/Manipulations Testing
5. Links Testing
6. Cookies & Sessions Testing



Object Properties Testing

- Object Properties Testing in functional testing ensures that visual elements (like buttons, text boxes) in the application have the right characteristics. It checks if these objects behave as expected based on their defined properties.
- **Example:** Verifying that a "Submit" button is visible, clickable, and has the correct color according to the application's design.

Database Testing

- Database Testing for functional testing ensures that the application interacts correctly with its database. It checks if data is stored, retrieved, and manipulated accurately within the database.
- **Example:** Confirming that user details entered through a registration form are correctly saved and can be retrieved when logging in.

Error Handling Testing

- Error Handling Testing focuses on functional aspects related to how the application deals with errors. It checks if the system shows appropriate error messages and handles unexpected situations gracefully without crashing.
- **Example:** Testing the system's response when a user tries to submit a form with missing information, ensuring it displays a helpful error message.

Calculations/Manipulations Testing

- Calculations/Manipulations Testing in functional testing assesses the accuracy of numeric operations and data manipulations performed by the application. It ensures that calculations yield correct results.
- **Example:** Testing an e-commerce application to ensure that the total price of items in a shopping cart is accurately calculated.

Links Testing

- The testing is focus on Links existence and Links execution.
- Links Testing in functional testing verifies that hyperlinks within the application work as expected. It checks if users are directed to the correct pages, ensuring a smooth and functional navigation experience.
- **Example:** Clicking on menu links in a website and confirming that each link leads to the intended page or performs the correct action.
- **Types of links:**
 - Internal Links
 - External Links
 - Broken Links

Cookies & Sessions Testing

- Cookies & Sessions Testing in functional testing evaluates how well the application manages user-specific information. It checks if session-related functionalities, such as login persistence, work as intended.
- **Example:** Logging into an online account, closing the browser, reopening it, and confirming that the user remains logged in due to the correct handling of cookies or session data.