

System Testing Types

SYSTEM TESTING TYPES

GUI Testing

- Purpose: 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.

Usability Testing

- Purpose: Tests if the software is easy for people to use and understand.
- Example: Checking if the menus are clear, and fonts are suitable to read for people of all age.

Functional Testing

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

Non-Functional Testing

- Purpose: 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).

1) 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:

- Element Check: Test if buttons, text boxes, and other elements are the right size and in the correct place on the screen.
- Error Messages: Check if error messages make sense and help users understand what went wrong.
- Screen Sections: Test different parts of the screen to make sure they all work as they should.
- Readability Check: Make sure the text on the screen is easy to read.

- Alignment Test: Check if text, icons, buttons, and other things on the page line up correctly.
- Font Color: Test if the colors of the text look right.
- Image Quality: Make sure pictures are clear and look good.
- Image Alignment: Check if pictures are in the right place on the page.
- Spelling Check: Test for any spelling mistakes on the page.
- User-Friendly Test: Make sure the interface is easy for users to use, so they don't get frustrated.
- Scrollbar Test: Test if the scrollbars work properly, especially on longer pages.
- Disabled Fields Test: Check if any grayed-out or disabled fields behave correctly.
- Image Size Check: Test if images are the right size.
- Heading Alignment: Make sure titles and headings are lined up correctly.
- Hyperlink Color: Test if the color of the links looks right.
- UI Element Test: Check if buttons, text boxes, checkboxes, radio buttons, drop-downs, and links all work as they should.

2) USABILITY TESTING

- Usability testing is a type of testing that evaluates how easy and user-friendly a software application is. The focus is on understanding how well users can interact with the system, whether they can accomplish their tasks efficiently, and how satisfied they are with the overall user experience.

3) FUNCTIONAL TESTING

Functional Testing types:

- Object Properties Testing
- Database Testing
- Error Handling Testing
- Calculations Testing
- Links Testing
- 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

- 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.

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.