Software Testing

Module-2

**1. What is Exploratory Testing?**

Exploratory testing is a software testing method that involves designing and executing tests on the fly, without using predefined test case.

**2. What is Integration Testing?**

Integration testing is software testing phase that verifies how components of the software application work together.

**3. What is functional testing?**

Functional testing is a process to check whether the software is working proper or not and giving right output.

**4. What is non-Functional Testing?**

Non-Functional Testing is a type of software testing that focuses on evaluating the non-functional aspects of a system, such as its performance, usability, reliability, and security.

**5. What is GUI Testing?**

Graphical User Interface (GUI) testing is the process of testing the system’s GUI. GUI testing involves checking the screens with the controls like menus, buttons, icons, and all types of bars – tool bar, menu bar, dialog boxes and windows etc.

**6. What is Load Testing?**

Load Testing is a type of performance testing that evaluates a system's

behaviour under expected workload conditions. It aims to determine how the system responds when multiple users access it concurrently.

**7. What is Stress Testing?**

Stress Testing is a non-functional testing technique that evaluates a system's behaviour under extreme or peak load conditions. It's designed to push the system beyond its normal operating limits to identify its breaking point and assess its stability and reliability under stress.

**8. What is white box testing and list the types of white box testing?**

White Box Testing is a software testing method where the tester has access to the internal structure and working of the application. This knowledge is used to design test cases that can verify the correctness of the software at the code level.

White box testing is primarily performed by software developers who have a deep understanding of the code and its internal structure.

Types of white box testing are as follows: -

1. Statement Coverage- Ensures that every line of code is executed at least once during testing.
2. Branch Coverage- Ensures that every branch of a conditional statement is executed at least once.
3. Path Coverage- Ensures that every possible path through the code is executed at least once.

**9. What is black box testing?**

Black Box Testing is a software testing method where the tester examines the functionality of an application without peering into its internal structures or workings. It's like treating the software as a "black box" – you know what goes in (input) and what comes out (output), but not how it works inside.

Black box testing is done by software testers, who are professionals specifically trained in testing methodologies. They design and execute test cases based on the software's requirements and specifications.

**10. Difference Between QA vs QC vs Tester?**

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| QA (Quality Assurance) | QC (Quality Control) | Tester |
| A border process that focuses on preventing defect by establishing and implementing processes and standards thoughts the entire software development lifecycle. | A narrower process that focuses on identifying and correcting defects  in the final product. | A specific role within the QC process responsible for executing tests, analysing results, and reporting defects. |
| QA establishes the quality  framework. | QC verifies the product  against that framework. | Testers are the individuals  who performs the testing activities within the QC process. |
| QA would establish the overall quality framework, such as coding standards, testing methodologies, and risk management processes. | QC would focus on the actual testing activities, such as functional, performance, and  security testing, to  identify and address  defects. | Testers would be the  individuals responsible for  designing and executing specific test cases and verifying bug fixes. |

**11. Difference between Smoke and Sanity?**

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| --- | --- |
| Smoke Testing | Sanity Testing |
| Smoke testing is done to assure that the acute functionality of program is working fine. | Sanity testing is done to check the bugs have been fixed after the build. |
| Smoke resting is also called subset of acceptance testing. | Sanity testing is also called subset of regression testing. |
| Smoke testing is documented. | Sanity testing isn’t documented. |
| Smoke testing is done to measure the stability of the system by performing testing. | Sanity testing is done to measure the rationality of the system by performing testing. |

**12. What is Error, Defect, Bug and failure?**

**1.** Error

▪ Definition: A mistake, misconception, or misunderstanding on the part of the developer. It can arise from incorrect assumptions,

misinterpretations of requirements, or simply human error during the coding process.

▪ Example: Developer made a mistake in coding.

**2.** Defect

▪ Definition: A deviation from the expected behaviour of the software. It's a flaw in the software that causes it to behave incorrectly.

▪ Example: When software must send same output but didn’t get output and program stop execute from that point.

**3.** Bug

▪ Definition: An informal term often used interchangeably with

"Defect." It generally refers to any unexpected behaviour or problem

in the software.

▪ Example: when user enters wrong password, but system log in from that it is bug.

**4. Failure**

• Definition: The inability of the software to perform its intended

function. It's the observable consequence of a defect.

• Example: If a critical bug prevents the software from starting or

processing data correctly, it results in a system failure.

**13. What is priority**?

Priority comes from the word prior, which means to come before

something else. A priority is the concern, interest or desire that comes before all others.

**14. What is severity?**

The quality or state of being severe: the condition of being very bad, serious, unpleasant, or harsh. the severity of the climate. the severity of the punishment. Medication can help shorten the illness and lessen its severity.

15. Write a scenario of only WhatsApp chat messages

• Verify that the user can set a chat wallpaper.

• Verify that the user sets privacy settings like turning on/off last

seen, online status, read receipts, etc.

• Verify that the user can update notification settings like –

notification sound, on/off, and show preview for both group and

individual chats.

• Verify that the user can take the complete chat backup of his

chats.

• Verify that the user can update the phone number that is used

by the WhatsApp application.

• Verify that the user can disable/delete his WhatsApp account.

• Verify that the user can check data usage by images, audio,

video, and documents in WhatsApp chats.

**16.Write a Scenario of Pen**

• Verify the outer body material of the pen. Check if it is metallic,

plastic, or any other material specified in the requirement

specifications.

• Check the colour of the outer body of the pen. It should be as

per the specifications.

• Verify that the brand name and/or logo of the company creating

the pen should be clearly visible.

• Verify the type of pen, whether it is a ballpoint pen, ink pen, or gel

pen.

• Verify that the user can write clearly over different types of

papers.

• Verify if the pen is with a cap or without a cap.

• Verify the colour of the ink on the pen.

• verify that the user can refill the pen with all the supported

ink types.