

Software Testing Interview Question and Answer

What is Software Testing?

A process of analyzing a software item to detect the differences between existing and required conditions (i.e., defects) and to evaluate the features of the software item.

“Find a bug is called software testing.”

What is System Testing?

Testing the fully integrated application to evaluate the system’s compliance with its specified requirements is called System Testing AKA End to End testing. Verifying the completed system to ensure that the application works as intended or not.

What is Big Bang Approach?

Combining all the modules once and verifying the functionality after completion of individual module testing. Top down and bottom up are carried out by using dummy modules known as Stubs and Drivers. These Stubs and Drivers are used to stand-in for missing components to simulate data communication between modules.

What is Top-Down Approach?

Testing takes place from top to bottom. High-level modules are tested first and then low-level modules and finally integrating the low-level modules to a high level to ensure the system is working as intended. Stubs are used as a temporary module if a module is not ready for integration testing.

What is Bottom-Up Approach?

It is a reciprocate of the Top-Down Approach. Testing takes place from bottom to up. Lowest level modules are tested first and then high-level modules and finally integrating the high-level modules to a low level to ensure the system is working as intended. Drivers are used as a temporary module for integration testing.

What is Unit Testing?

Unit Testing is also called as Module Testing or Component Testing. It is done to check whether the individual unit or module of the source code is working properly. It is done by the developers in developer's environment.

What is Integration Testing?

Integration Testing is the process of testing the interface between the two software units. Integration testing is done by three ways. Big Bang Approach, Top Down Approach, Bottom-Up Approach

What is Test Data?

Test data is the data that is used by the testers to run the test cases. Whilst running the test cases, testers need to enter some input data. To do so, testers prepare test data. It can be prepared manually and also by using tools.

For example, To test a basic login functionality having a user id, password fields. We need to enter some data in the user id and password fields. So we need to collect some test data.

What is Test Harness?

A test harness is the collection of software and test data configured to test a program unit by running it under varying conditions which involves monitoring the output with expected output.

What is Test Closure?

Test Closure is the note prepared before test team formally completes the testing process. This note contains the total no. of test cases, total no. of test cases executed, total no. of defects found, total no. of defects fixed, total no. of bugs not fixed, total no of bugs rejected etc.,

What is Positive and Negative Testing?

Positive Testing: It is to determine what system supposed to do. It helps to check whether the application is justifying the requirements or not.

Negative Testing: It is to determine what system not supposed to do. It helps to find the defects from the software.

What is White Box Testing?

White Box Testing is also called as Glass Box, Clear Box, and Structural Testing. It is based on applications internal code structure. In white-box testing, an internal perspective of the system, as well as programming skills, are used to design test cases. This testing usually was done at the unit level

What is Black Box Testing?

Black Box Testing is a software testing method in which testers evaluate the functionality of the software under test without looking at the internal code structure. This can be applied to every level of software testing such as Unit, Integration, System and Acceptance Testing.

What is Grey Box Testing?

Grey box is the combination of both White Box and Black Box Testing. The tester who works on this type of testing needs to have access to design documents. This helps to create better test cases in this process.

What is Static Testing?

Static Testing involves in reviewing the documents to identify the defects in the early stages of SDLC.

What is Dynamic Testing?

Dynamic testing involves in the execution of code. It validates the output with the expected outcome.

What is Verification in software testing?

Verification is the process, to ensure that whether we are building the product right i.e., to verify the requirements which we have and to verify whether we are developing the product accordingly or not. Activities involved here are Inspections, Reviews, Walk-throughs

What is Validation in software testing?

Validation is the process, whether we are building the right product i.e., to validate the product which we have developed is right or not. Activities involved in this is Testing the software application

What are Quality Assurance and Quality Control?

Quality Assurance: Quality Assurance involves in process-oriented activities. It ensures the prevention of defects in the process used to make Software Application. So the defects don't arise when the Software Application is being developed.

Quality Control: Quality Control involves in product-oriented activities. It executes the program or code to identify the defects in the Software Application.

What is Bucket Testing?

Bucket testing is a method to compare two versions of an application against each other to determine which one performs better.

What is A/B Testing?

Refer Bucket Testing.

What is Split Testing?

Refer Bucket Testing.

What are the principles of Software Testing?

1. Testing shows presence of defects
2. Exhaustive testing is impossible
3. Early testing
4. Defect clustering
5. Pesticide Paradox
6. Testing is context depending
7. Absence of error fallacy

What is Exhaustive Testing?

Testing all the functionalities using all valid and invalid inputs and preconditions is known as Exhaustive testing.

What is Early Testing?

Defects detected in early phases of SDLC are less expensive to fix. So conducting early testing reduces the cost of fixing defects.

What is Defect clustering?

Defect clustering in software testing means that a small module or functionality contains most of the bugs or it has the most operational failures.

What is Pesticide Paradox?

Pesticide Paradox in software testing is the process of repeating the same test cases, again and again, eventually, the same test cases will no longer find new bugs. So to overcome this Pesticide Paradox, it is necessary to review the test cases regularly and add or update them to find more defects.

What is Walk Through?

A walkthrough is an informal meeting conducted to learn, gain understanding, and find defects. The author leads the meeting and clarifies the queries raised by the peers in the meeting.

What is Inspection?

Inspection is a formal meeting led by a trained moderator, certainly not by the author. The document under inspection is prepared and checked thoroughly by the reviewers before the meeting. In the inspection meeting, the defects found are logged and shared with the author for appropriate actions. Post inspection, a formal follow-up process is used to ensure a timely and corrective action.

Who are all involved in an inspection meeting?

Author, Moderator, Reviewer(s), Scribe/Recorder and Manager.

What is a Defect?

The variation between the actual results and expected results is known as a defect. If a developer finds an issue and corrects it by himself in the development phase then it's called a defect.

What is a Bug?

If testers find any mismatch in the application/system in testing phase then they call it as Bug.

What is Bug Priority?

Defect priority can be defined as how soon the defect should be fixed. It gives the order in which a defect should be resolved. Developers decide which defect they should take up next based on the priority. It can be High, Medium or Low. Most of the times the priority status is set based on the customer requirement.

Tell some examples of Bug Severity and Bug Priority?

High Priority & High Severity: Submit button is not working on a login page and customers are unable to login to the application

Low Priority & High Severity: Crash in some functionality which is going to deliver after couple of releases

High Priority & Low Severity: Spelling mistake of a company name on the homepage

Low Priority & Low Severity: FAQ page takes a long time to load

What are the different available models of SDLC?

1. Waterfall
2. Spiral
3. V Model
4. Prototype
5. Agile

What is STLC?

STLC (Software Testing Life Cycle) identifies what test activities to carry out and when to accomplish those test activities. Even though testing differs between Organizations, there is a testing life cycle

What is RTM?

Requirements Traceability Matrix (RTM) is used to trace the requirements to the tests that are needed to verify whether the requirements are fulfilled. Requirement Traceability Matrix AKA Traceability Matrix or Cross Reference Matrix.

What is Test Metrics?

Software test metrics is to monitor and control process and product. It helps to drive the project towards our planned goals without deviation. Metrics answer different questions. It's important to decide what questions you want answers to.

When to stop testing? (Or) How do you decide when you have tested enough?

There are many factors involved in the real-time projects to decide when to stop testing.

1. Testing deadlines or release deadlines
2. By reaching the decided pass percentage of test cases
3. The risk in the project is under acceptable limit
4. All the high priority bugs, blockers are fixed
5. When acceptance criteria is met

What is Testware?

Testware is the utilities and software application needed to test the software package.

Explain bug release and bug leakage.

Bug leakage occurs when the testing team fails to detect a bug, and end-user customers report the bug. Bug release refers to the handing over of software with known bugs.

What are the steps in the bug cycle?

Review all six steps thoroughly, but in a concise manner. Be detailed with your answer, noting the specific status assignment for each step.

What types of software testing are available?

Be sure to cover the main types of testing, including:

Performance

Unit

Shakeout

Functional

Smoke

Alpha and Beta

White box and Black box

System

Stress and load

Integration and regression

Explain the difference between boundary and branch testing.

The testing of the software's limit conditions is boundary testing, while the testing of all application branches is branch testing.

What is agile testing, and why is it important?

Explain that agile testing tests software from the customer's point of view, and follows the SDLC methodologies.

What tools do testers use during testing?

Explain the various available tools, including Firebug, Selenium, WinSCP, OpenSTA and the web developer toolbar in Firefox.

Explain the differences between load testing, stress testing, and volume testing.

Explain the differences between these three and in a detailed, concise manner. You may need to refresh your memory and review these three testing methods.

What is the difference between validation and verification when testing software?

Verification takes into account all the key aspects of software development, validation is the actual testing of verification aspects.

What is a bug triage?

A bug triage is a simple process that assigns a bugs owner, severity and priority.

Explain Test Metric and the information it provides.

Test Metric is simply a standard of test measurement, and may include information such as: test run, total test, test failed, test passed, test passed the first time, and tests deferred.

What is the difference between retesting and regression testing?

Regression testing checks to see if a defect fix impacts other functionality, while retesting checks the defect fix.

What types of documentation are used in QA?

Be thorough with your answer and include all of the documentation you would normally use, including:

Test metrics

Test plan and cases

Task distribution

User profiles

Test logs

Test incident and summary reports

What is an MR?

MR is a Modification Request that is written when reporting errors, suggestions or problems with the software.

How should validation activities be handled?

When performing validation activities, a third party should conduct validation and verification. An independent validation should be performed and internal staff members not connected to the projects should be assigned validation-related tasks.

What is Ad Hoc testing?

During this test, the tester attempts to break the system by randomly using its functionality. This may also include negative testing.

What is 'USE' case?

A USE case is a document that describes the system response and user action for specific function.

Explain CRUD testing.

CRUD (Create, Read, Update and Delete) is another term used for Black box testing.

Explain thread testing.

Thread testing is the process of performing top-down testing.

What is configuration management?

Configuration management is the process of documenting changes made during the project's life cycle.