**Complete Interview Questions on Software Testing:-**

1. What is software?
2. Types of software?
3. What is software testing (Three important Points)?
4. Software Quality (5 important Points)?
5. What is Project & What is Product?
6. Error, Bug, Failure and Defect?
7. Why the software has Bug (5 imp points)?
8. SDLC?
9. Types of software testing models (5 Models)?
10. What is Static Testing (3) & Dynamic Testing?
11. What is Verification & Validation?
12. White box Testing(UT, IT) & Black box Testing(FT,NFT, System Testing and UAT)?
13. What is QA (Quality Assurance (PPP)) & QC (Quality Control) & QE(Automation Engineer)?
14. Levels of Testing (U, I, S, UAT)?
15. Unit Testing Techniques(4(Basis Testing, Loop Coverage, Conditional Testing, Mutation Testing))?
16. Integration Testing?
17. Types of Integration testing(2(Incremental Integration Testing(Top down& Bottom Up), Non-incremental integration Testing))?
18. What is System Testing?
19. System Testing Focuses on Some Aspects (GUI, Functional, Non-Functional, Usability)?
20. Functional Testing(Object Property Testing, Database Testing, Error Handling, Calculation Manipulation Testing, Link Existence and Execution, Cookies and session)
21. Non-Functional Testing(Performance, Security, Compatibility and Installation)
22. Performance Testing Types(Load, Stress, Volume,Spike, Soak, Endurance, Scalablity)
23. Security testing(Authentication & Authorization)
24. Recovery testing
25. Compatibility Testing(different environments(Forward, backward, hardware)
26. Installation Testing
27. Sanitation Testing or Garbage testing(Important Question)
28. Difference between Functional testing and Non-Functional testing
29. Regression Testing(3(Unit RT, Regional RT, Full RT)
30. Re-Testing
31. Smoke Testing & Sanity Testing
32. Exploratory, Ad hoc, Monkey Testing
33. Positive Testing & Negative Testing
34. End-To-End Testing
35. Globalization & Localization Testing
36. What is Test Data
37. Test Design Technique(Data Minimization(Data and Coverage))
38. Types of Test Design Techniques(5(Equivalence Class Partition(ECP), Boundary Value Analysis, Decision Table Based Testing, State Transition, Error Guessing))
39. STLC(Software Testing Life Cycle)
40. Test Case
41. Test Plan
42. Test Scenario
43. Use case
44. Test Suite
45. RTM (Requirement Traceability Matrix)
46. Difference Between Priority and Severity
47. Defect Resolution
48. Bug Life Cycle
49. Principles of software Testing(Google This)
50. Alpha Testing and Beta Testing

**Answers**

1. What is software?

**Ans:-** Software is a collection of multiple programs which helps us to perform task.

1. Types of software?

**Ans:-** System software, Programming software, Application Software.  
**System Software:-** Utilities, OS, Drivers.

**Programming Software:-** C, C++, Java, Python, Java script.

**Application Software:-** Web Application, Desktop Application, Mobile Application.

**Web Application:-** All web browsers comes under web application.

**Eg:-** Chrome, Firefox, Safari, Opera, Edge, IE.

**Desktop Application:-** VLC Media Player, Paint, Notepad, Snipping Tools, All Microsoft Products.

**Mobile Application:-** Whats App, Youtube, Instagram, FB.

1. What is software testing (Three important Points)?

**Ans:-**

1. Its part of SDLC(Software Development life cycle)
2. Software testing is an activity to detect and identify the bug in a software.
3. The Main moto of software testing is to deliver the product in quality.
4. Software Quality (6 important Points)?

**Ans:-**

1. meets the requirements.
2. With in the Budget.
3. Bug free
4. Deliver on Time.
5. Maintainable.
6. Required Skills.
7. What is Project & What is Product?

**Ans:-** An application or software which developed for the specific customers/Client is called Project.

An application or software which developed for many customers/Client is called Product.

1. Error, Bug, Failure and Defect?

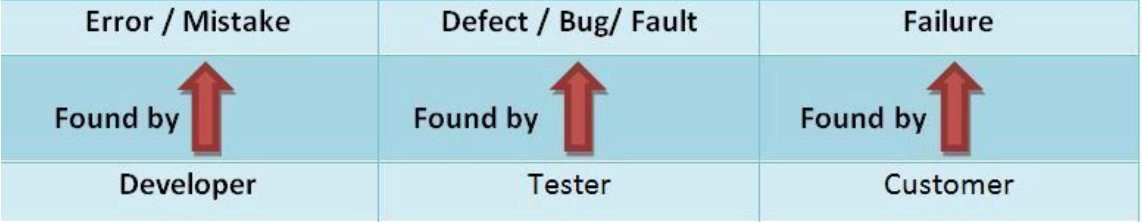
**Ans:-**

**Error:-** when the developer made a mistake in the programming is called Error.

**Defect:-** The error which is found during the unit testing in the development phase is called defect.

**Bug:-** An error which is found in the testing phase is called bug.

**Failure:**- when the error is found at the end user is called failure.



1. Why the software has Bug (5 imp points)?

**Ans:-** Miscommunication, Lac of skills, Software Complexity, requirement Changes, Programming Errors.

1. What is Static Testing (3) & Dynamic Testing?

**Ans:-**

**Static Testing:-**  Testing the document in the form of Reviewing is called Static Testing.

**Eg:**- Walk through, Inspection, Review.

Walkthrough:- just reviewing the document with the peers. It is informal meeting.

Inspection:- it is a formal meeting. Where developers, testers, project owners, club were involved.

Review:- Reviewing the document whether it is correct or not.

**Dynamic Testing:**- Testing the Actual functionality of the application is called Dynamic testing.

1. What is Verification & Validation?

**Ans:-**

**Verification:-** Testing the document in the form of Reviewing is called Verification. It is also called static testing.

**Validation:-** Testing the Actual functionality of the application is called Validation. It is also called as Dynamic Testing.

1. White box Testing(UT, IT) & Black box Testing(FT,NFT, System Testing and UAT)?

**Ans:-**

**White Box Testing:-** It’s a process of testing the internal logic of the program is called white box testing. This testing is conducted by the developers.

**Types of white box testing:-** Unit testing and integration testing.

**Black Box testing:-** It’s a process of testing functionality of the application is called black box testing. It is conducted by the testers. It is also called as system testing.

**Types of Black box testing:-** System testing, Functional testing, Non- functional testing and UAT Testing.

1. What is QA (Quality Assurance (PPP)) & QC (Quality Control) & QE(Automation Engineer)?

**Ans:-**

**Quality Assurance(QA) or Quality Analyst:-** It is a process related where it contains People, process and product. The main moto of the QA is to prevent the bug in the application. In order to deliver the software in quality.

**Quality Control(QC):**- Testing the functionality of the application is called QC. The main moto of the QC is to detect and identify the bug in the software in order to provide the software in the quality. This is done by the tester.

**Quality Engineer(QE):-** QE is the automating the test cases in order to test the functionality by using script. Which is done by the automation team. That is called QA engineer.

1. Levels of Testing (U, I, S, UAT)?

**Ans:-** Unit Testing, Integration Testing, System Testing and UAT Testing.

**Unit :-** A single a component or module is called Unit.

**Unit Testing:**- Unit testing is process of testing the single module or component of a software is called unit testing.

Unit testing is the process of testing the internal logic of the program is called unit testing. It is done by the developers.

**Integration Testing:-** Testing the two or more modules in order to check the data flow between those modules.

**There are two types of integration Testing:**-

**1) Incremental testing**

**2) Non-Incremental Testing**

**1) Incremental Testing:-** Incrementally adding the module in order to check the data flow between those modules.

**There are two types:-**

1. Top Down Approach.
2. Bottom UP Approach.
3. **Top Down Approach:-** Incrementally adding the module and make sure that the added module is child for the parent module.
4. **Bottom UP Approach:**- Incrementally adding the module and make sure that the added module parent for the child module.

2)**Non-Incremental Testing:-** Testing the all module in a single shot is called Non-incremental Testing.

**System Testing:-**

System testing is the process of testing the functionality of the application is called system testing. It is also called functional testing black box testing. This testing is dedicatedly performed by the testers.

**User Acceptance Testing(UAT):-**

It is also called as Beta Testing. It is a type of testing performed by the end user or a client to verify and accept the software system before moving the application to the production environment.

UAT testing is done in the final phase of the testing after functional integration and system testing is done.

UAT is a process of testing the User manual of the application.

1. Unit Testing Techniques

**Ans:-**

1. Basis Testing
2. Loop Coverage
3. Conditional testing
4. Mutation Testing
5. **Basis Testing:-**

It is white box testing technique. Based on the control structure of the program. Using this structure a control flow graph is prepared and the various possible paths present in the graphs or executed as a part of testing.

1. **Loop Coverage:-**

Loop coverage is a process of testing the correctness of loop structure.

1. **Conditional Testing:-**

Conditional Testing is structural testing method that is useful during unit testing. Using source code or detailed psudo code as a reference for test design. Its goal is the thorough testing of every condition occurs in the source code.

1. **Mutation Testing:-**

Mutation is also known as Code mutation testing. Is a form of white box testing in which testers changes specific components of an application source code to ensure a software test suite will be able to detect the changes. Changes introduced to the software are indented to cause error in the program.

19) System Testing Focuses on Some Aspects (GUI, Functional, Non-Functional, Usability)?

**ANS:-** **GUI(Graphical User interface) :-** it is a process of testing the GUI of the application. Which means testing the elements on the websites.

Ex:- Images, font size, font color, slide show, text type(Bold, underline)

20) Functional Testing(Object Property Testing, Database Testing, Error Handling, Calculation Manipulation Testing, Link Existence and Execution, Cookies and session)

**ANS:-** Functional testing is testing the functionality of the application or behavior of the application is called functional testing.

**Object Property Testing:-**  Object property testing is testing the properties of the functionality is called object property testing. **For Example:-** username, password, checkbox, radio button, drop down button, drop down list, Toast, Tool tip.

**Database Testing:-** Database testing is the process of testing the data Manipulation, deletion, updation and creating data in the database. Which follows the DML Language.

**Error Handling:-** Error handling is a process of testing the error functionality on the application is called error handling testing. **For example:-** a form with out a data. User name, Passwords of valid and invalid combinations.

**Calculation Manipulation testing:-** Testing the calculation on the application is called calculation manipulation testing. For example:- Captcha.

**Link Existence and Execution:-**

**Link Existence:-** Checking whether the link is existent in the web application is called link existence testing.

**Link Execution:-** Checking the proper navigation of the link is called link execution testing.

**Cookies and Sessions:-**

**Cookies:-**

**Sessions:-** Testing the feature or functionality of the application suppose to start and end in specified time is called session testing. **For example:-** railway, banking.

21) Non-Functional Testing(Performance, Security, Compatibility and Installation)

**Ans:-** Non-Functional testing is testing the response, security and compatibility and installation of the application.

**Performance testing:-**  Performance testing is testing the response and speed of the application is called performance testing. Types( Load, Stress, Volume)

**Load:-** Increasing the number of load gradually on the application to verify the speed of the application is called load.

**Stress:-** Increasing the load suddenly on the application to verify the speed of the application is called stress.

**Volume:-** Increasing the number of users to store the data in the database to verify the database handling is called volume.

**Security:-** Testing the security of the application like authentication, authorization is called security testing.

**Compatibility and installation:-**

**Compatibility:-** Testing the environment with the compatibility of the application is called compatibility. Two types(Forward and Backward Compatibility).

**Forward Compatibility Testing:-** Testing the upcoming OS with the current application is called forward compatibility testing.

**Backward Compatibility Testing:-** Testing the Old OS with the current application is called backward compatibility testing.

**Installation Testing:-** Testing the installation of the application like installation process, locating of files to the respective location.

24) Recovery testing

**Ans:-** Testing the data recoverisation in the application is called recovery testing. For example:- In gmail if we compose a mail all of a sudden if the pc shutdowns the composed mail will be stored in the draft.

27) Sanitation Testing or Garbage testing(Important Question)

**Ans:-** when we found a new feature which doesn’t provided in the SRS(software requirement specification) then we consider the feature as bug.

29) Regression Testing(3(Unit RT, Regional RT, Full RT)

**Ans:-**  Testing conducts on modified build to make sure there should not be any impact on existing functionality due to adding a feature, removing a feature or fixing a bug.

**Unit Regression Testing:-** Testing only the modified build is called Unit regression testing.

**Regional Regression Testing:-** Testing the modified build along with the impacted area is called regional regression testing.

**Full Regression Testing:-** Testing the All modified functionality in a single shot is called full regression testing.

30) Re-Testing

**Ans:-** Testing the bug again and again is called re-testing.

31) Smoke Testing & Sanity Testing.

**Ans:-** **Smoke Testing:-**

When we get a piece of software from a developer in the initial stage performs an testing is called smoke testing.

Testing conducts on build when it is not stabled.

Smoke testing will be done by the developers and testers.

Smoke testing requires test cases.

**Sanity Testing:-**

Testing the main functionality of the application with out going deeper is called sanity testing.

Sanity testing is done by testers.

Sanity testing will done once is application is stable.

Sanity testing doesn’t requires test cases.

32) Exploratory, Ad hoc, Monkey Testing

**Ans:- Exploratory:-**

We have to explore the application. Understand completely and test it.

Understand the application, identify all possible scenarios, document it then use it for testing.

Test engineer will do exploratory testing when there is no requirement.

**Ad hoc Testing:-**

Testing application randomly with out any test cases or any business requirement document.

Ad hoc testing is informal testing type to break system.

Tester should have knowledge of application even though he doesn’t have requirement specification.

**Monkey Testing:-**

Testing application randomly with out any test cases or any business requirement document.

Tester do not have knowledge on application.

Suitable for gaming application.

33) Positive Testing & Negative Testing

**Ans:-**

**Positive Testing:-**

Testing the application with positive data is called positive testing.

It checks whether the application behaves as expected with positive data.

**Negative Testing:-**

Testing the application with Negative data is called Negative testing.

It checks whether the application behaves as expected with Negative data.

34) End-To-End Testing

**Ans:-** Testing the overall functionality of the system including the data integration among all the modules is called end-to-end testing.

35) Globalization & Localization Testing

**Ans:-**

**Globalization:-**

Performed to ensure the system or software application can run in any culture or local environment.

It ensure to support every language and other attribute.

It tests the different currency format, mobile format and address are supports the application.

Eg:- facebook.com it supports many languages and it can be accessed by people of many countries.

Hence it is called globalized product.

**localization:-**

Performed to ensure the system or software application can run in on specific geographical and cultural or local environment.

It ensure to support specific kind of languages and usable only in specific region.

It tests the specific currency format, mobile format and address are supports the application.

Eg:- Baidu.com it supports only Chinese languages and it can be accessed by only Chinese people not other countries is called localized product.

Hence it is called localized product.

36) What is Test Data

**Ans:-** To test the case with data is called Test data.

37) Test Design Technique(Data Minimization(Data and Coverage))

**Ans:-**

Test design technique is used to prepare data for testing.

We can minimize the data by two things. Like data and coverage.

**Data:-** Data is used for testing.

**Coverage:-** Coverage is what ever data we prepare we should able to cover all the cases.

38) Types of Test Design Techniques(5(Equivalence Class Partition(ECP), Boundary Value Analysis, Decision Table Testing, State Transition, Error Guessing))

**Ans:-**

**Equivalence Class Partition(ECP):-**

Partitioning data into various classes and we can select data according to class then test it reduces the number of test cases and saves testing.

**Boundary Value Analysis:-**

Used to check boundary of the inputs.

**Decision Table Testing:-**

Decision table testing is also called cause effect testing. This testing will be used when we have mor e condition and corresponding action.

In decision table testing we deal with combination of testing.

To identify the test case with decision table we consider decision and condition.

**State Transition:-**

In state transition, changes in input condition changes the state of application.

This testing technique allows the tester to test the behavior of AUT(Application Under Test).

**Error Guessing:-**

Error guessing is one of the testing technique to find bug in the application.

Error guessing doesn’t follow any specific rules. It depends tester analytical and test experience.

Eg:- Submitting a form without entering values.

39) STLC(Software Testing Life Cycle)

**Ans:-** STLC is a process of testing the application by following an flow. It follows step by step process to test a application.

1. Requirement Analysis
2. Test Plan
3. Test Design
4. Test Execution
5. Bug Reporting
6. Test Closure

40) Test Case

**Ans:-** Test case contains steps to validate an functionality is called test case. It also contains Test steps, expected Result, actual Result.

41) Test Plan

**Ans:-**  Test Plan is a document that describes to test scope, test strategy, objective, schedules, deliverable and resources.

42) Test Scenario

**Ans:-** A possible area to be tested(what to be tested).

43) Use case

**Ans:-** Use case describes the requirement and it contains three items Actors, Action, Goal.

44) Test Suite

**Ans:-** A group of test cases belongs to a same category is called Test Suite.

45) RTM (Requirement Traceability Matrix)

**Ans:-** RTM describes the mapping of requirement with testcases. The main purpose of RTM is to set all testcases are covered and no functionality should be missed while doing software testing.

46) Difference Between Priority and Severity

**Ans:-**

Priority means importance of bug. (Very High, High, Medium, Low)

Severity means seriousness of bug.(Blocker, Critical, Major, Minor)

47) Defect Resolution

**Ans:-**

Status represents the position of the work flow.

Diagram

Description automatically generated

Resolution means ways in which the issue can be closed.

48)Bug Life Cycle

Diagram

Description automatically generated

49) Principles of software Testing

Ans:-

1. Alpha Testing and Beta Testing.

**Ans:-** Testing the functionality with in the organization is called Alpha testing.

Testing the functionality at the User end is called Beta Testing.