Module :- 2

1.      What is software testing?
Ans.    Testing is the process of evaluating a system or its component(s) with the intent to find that whether it satisfies the specified requirements or not.

2.      What is Exploratory Testing?
Ans.    In exploratory testing tester focuses more on how the software actually works, testers do minimum planning and maximum execution of the software by which they get in depth idea about the software functionality, once the tester starts getting insight into the software he can make decisions to what to test next. Exploratory testing is mostly used if the requirements are incomplete and time to release the software is less.

3.      What is traceability matrix?
Ans.    To protect against changes you should be able to trace back from every system component to the original requirement that caused its presence.

4.      What is Boundary value testing?
Ans.    Software testing technique in which tests are designed to include representatives of boundary values. It is performed by the QA testing teams.

5.      What is Equivalence partitioning testing?
Ans.    Software testing technique that divides the input data of a software unit into partitions of data from which test cases can be derived. it is usually performed by the QA teams.

6.      What is Integration testing?
Ans.    The phase in software testing in which individual software modules are combined and tested as a group. It is usually conducted by testing teams.

7.      What determines the level of risk?
Ans.

8.      What is Alpha testing?
Ans.    Type of testing a software product or system conducted at the developer's site. Usually it is performed by the end user.

9.      What is beta testing?
Ans.    Final testing before releasing application for commercial purpose. It is typically done by end-users or others.

10.     What is component testing?
Ans.    Testing technique similar to unit testing but with a higher level of integration - testing is done in the context of the application instead of just directly testing a specific method. Can be performed by testing or development teams.

11.     What is functional system testing?
Ans.    A requirement that specifies a function that a system or system component must perform.

12.     What is Non-Functional Testing?
Ans.    Testing technique which focuses on testing of a software application for its non-functional requirements. Can be conducted by the performance engineers or by manual testing teams.

13.     What is GUI Testing?
Ans.    GUI Testing means User Interface Testing.

14.     What is Adhoc testing?
Ans.    Adhoc testing is an informal testing type with an aim to break the system.

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

Ans.    White Box Testing :- Testing technique based on knowledge of the internal logic of an application's code and includes tests like coverage of code statements, branches, paths, conditions. It is performed by software developers.

16.     What is black box testing?

Ans.    A method of software testing that verifies the functionality of an application without having specific knowledge of the application's code/internal structure. Tests are based on requirements and functionality. It is performed by QA teams.

17.     What are the different black box testing techniques?

Ans.    Black Box Testing techniques against the interfacing requirements for the component under test

18.     Mention what are the categories of defects?

Ans.    time pressure, complex code, complex infrastructure, changed technologies and/or many system interactions.

19.     Mention what bigbang testing is?

Ans.    bigbang testing is a Spme merge Testing

20.     What is the purpose of exit criteria?

Ans.    To determine the Exit criteria we need to set criteria such as Coverage criteria.

21.     When should "Regression Testing" be performed?

Ans.    Type of software testing that seeks to uncover software errors after changes to the program (e.g. bug fixes or new functionality) have been made, by retesting the program. It is performed by the testing teams.

22.     What is 7 key principles?

Ans.    Testing shows presence of Defects, Exhaustive Testing is Impossible!, Early Testing Defect Clustering, The Pesticide Paradox, Testing is Context Dependent, Absence of Errors Fallacy

23.     Explain in detail?

Ans.

24.     Difference between QA v/s QC v/s Tester  Difference between Smoke and Sanity?

Ans.

| QA | QC | Tester |
|---|---|---|
| Activities which ensure the implementation of processes, procedures and standards in context to verification of developed software and intended requirements. | Activities which ensure the verification of developed software with respect to documented (or not in some cases) requirements. | Activities which ensure the identification of bugs/error/defects in the Software. |
| Focuses on processes and procedures rather than conducting actual testing on the system. | Focuses on actual testing by executing Software with intend to identify bug/defect through implementation of procedures and process. | Focuses on actual testing. |
| Process oriented activities. | Product oriented activities. | Product oriented activities. |
| Preventive activities.. | It is a corrective process. | It is a preventive process. |

| Smoke Testing | Sanity Testing |
| --- | --- |
| Smoke Testing is performed to ascertain that the critical functionalities of the program is working fine. | Sanity Testing is done to check the new functionality / bugs have been fixed. |
| The objective of this testing is to verify the "stability" of the system in order to proceed with more rigorous testing. | The objective of the testing is to verify the "rationality" of the system in order to proceed with more rigorous testing. |
| This testing is performed by the developers or testers. | Sanity testing is usually performed by testers. |
| Smoke testing is usually documented or scripted. | Sanity testing is usually not documented and is unscripted. |
| Smoke testing is a subset of Regression testing. | Sanity testing is a subset of Acceptance testing. |
| Smoke testing exercises the entire system from end to end. | Sanity testing exercises only the particular component of the entire system. |
| Smoke testing is like General Health Check Up. | Sanity Testing is like specialized health check up. |

25.     Difference between verification and Validation  Explain types of Performance testing.  What is Error, Defect, Bug and failure?

Ans.    Errors, Bug, Defect And Failure

A Human can make an Error. An Error is 'A Human Action that produces an Incorrect Result'. The Error can cause a Defect. A Defect is 'A flaw in a component or system that can cause the component or system to fail to perform its required function'. A Defect can be in the Software, System or in a Document. A Failure is a 'Deviation of the component or system from its expected delivery, service or result'. Failures can be caused by environmental conditions as well. E.g. radiation, magnetism, electronic fields. Pollution can cause faults in firmware or influence the execution of software by changing hardware conditions.

26.     Difference between Priority and Severity.

Ans.    High Priority & High Severity: An error which occurs on the basic functionality of the application and will not allow the user to use the system. (Eg. A site maintaining the student details, on saving record if it, doesn't allow to save the record then this is high priority and high severity bug.)

High Priority & Low Severity: The spelling mistakes that happens on the cover page or heading or title of an application.

High Severity & Low Priority: An error which occurs on the functionality of the application (for which there is no workaround) and will not allow the user to use the system but on click of link which is rarely used by the end user.  Low Priority and Low Severity: Any cosmetic or spelling issues which is within a paragraph or in the report (Not on cover page, heading, title).

27.     What is Bug Life Cycle?

Ans.    Bug life cycle is nothing but the various phases a bug under goes after it is raised or reported. The different phases of Bug life cycle are, - New or Opened - Assigned - Fixed - Tested - Closed.

28.     Explain the difference between Functional testing and NonFunctional testing.

Ans.

| Functional Testing | Non-Functional Testing |
| --- | --- |
| Functional testing is performed using the functional specification provided by the client and verifies the system against the functional requirements. | Non-Functional testing checks the Performance, reliability, scalability and other non-functional aspects of the software system. |
| Functional testing is executed first | Non functional testing should be performed after functional testing |
| Manual testing or automation tools can be used for functional testing | Using tools will be effective for this testing |
| Business requirements are the inputs to functional testing | Performance parameters like speed , scalability are inputs |

| | to non-functional testing. |
|---|---|
| Functional testing describes what the product does | Nonfunctional testing describes how good the product works |
| Easy to do manual testing | Tough to do manual testing |
| Types of Functional testing are :-<br>Unit Testing<br>Smoke Testing<br>Sanity Testing<br>Integration Testing<br>White box testing<br>Black Box testing<br>User Acceptance testing<br>Regression Testing. | Types of Nonfunctional testing are :-<br>Performance Testing<br>Load Testing<br>Volume Testing<br>Stress Testing<br>Security Testing<br>Installation Testing<br>Penetration Testing<br>Compatibility Testing ,Migration Testing. |

Github Link:-  https://github.com/Hemang73/hemang.git