**MODULE -2**

1.What is Exploratory Testing?

Ans: Exploratory testing is a concurrent process, where test design, logging & execution happens simultaneously.

2.What is traceability matrix?

Ans: To protect against changes you should be able to track back every system component to its original requirement which caused its presence.

3.What is Boundary value testing?

Ans: Boundary values testing is a type of black box testing in which, test cases of the system are designed to test cases near the limit of valid range.

4.What is Equivalence partitioning testing?

Ans: In this testing process, group of valid inputs are treated as equivalent & one input is selected to represent them all.

5.What is Integration testing?

Ans: In Integration testing, system components are integrated together and tested as a group.

6.What determines the level of risk?

Ans: a properly designed test that passes reduces overall level of risk in a system.

7.What is Alpha testing?

Ans: Alpha testing is a type of Acceptance Testing in which, system is tested in virtual environments by developers at development site.

8.What is beta testing?

Ans: Beta Testing is a type of Acceptance Testing in which, system is tested in real time environment by users at users’ site.

9.What is component testing?

Ans: Component Testing is Testing of Smallest part of the system in an isolated environment.

10.What is functional system testing?

Ans: Functional System Testing is Performed to verify that a system functions as per its desired requirements & specifications.

11.What is Non-Functional Testing?

Ans: Non-Functional testing is testing the attribute of a system or a component which does not relate to any functionality.

12.What is GUI Testing?

Ans: GUI Testing is Graphical User Interface Testing of a system, which includes testing of menus, options & various bars like toolbar, slide bar, status bar etc.

13.What is Ad hoc testing?

Ans: Ad hoc is a type of Experience based testing in which, aim is to break the system by testing randomly. This type of testing is often not recorded.

14.What is load testing?

Ans: Load Testing is testing the system by gradually increasing the load to check how well system performs under the expected work load.

15.What is stress Testing?

Ans: In Stress testing the system is stressed beyond its specification to check how the system breaks and at which point.

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

Ans: White Box testing is when the tester has the knowledge of the internal parts of the system. It is also called as glass box testing.

Types of White Box Testing are:

-statement coverage

-branch coverage

-decision coverage

17.What is black box testing? What are the different black box testing techniques?

Ans: Black Box testing is when tester does not have the knowledge of the internal parts of the system, it Is also called as input-output based testing.

Different Black Box testing types are:

-Boundary Value Analysis

-Equivalence Partitioning

-Decision Table

-State Transitioning

18.Mention what are the categories of defects?

Ans: There are five types of defects which are as listed below:

-Data Quality/Database Defects

-Critical Functionality Defects

-Functionality Defects

-Security Defects

-UI Defects

19.Mention what big bang testing is?

Ans: In Big Bang testing every system component is integrated altogether as a big bang and tested at the end.

20.What is the purpose of exit criteria?

Ans: Exit criteria are to define that the existing phase has been completed and the software is ready to move to the next stage.

21.When should "Regression Testing" be performed?

Ans: Regression Testing should be performed after a change in code to verify that change of code has not affected other parts of the software.

22.What is 7 key principles? Explain in detail?

Ans: Seven keys principle are as below with explanation:

1. Testing Shows Presence of Defects

-Testing can not prove that there are no defects left.

-it can decrease the number of unidentified bugs to improve the quality of the software, but can not make a software defect free.

1. Early Testing

-testing activities should be started as early as possible in development life cycle to reduce cost and time of the process.

1. Defect Clustering

-defects are not evenly spread in the system, most of the defects are located in small number of modules

1. Testing Is Context Based

-different types of websites need to be tested differently, such as an e-commerce site testing will be different than banking site

1. The Pesticide Paradox

-eventually same type of test cases will not find new defects, hence testing needs to be revised & reviewed

1. Absence of Error Fallacy

-if the system is not made up as user’s requirements than finding & fixing defects does not help

1. Exhaustive Testing is Impossible

-in testing we can not cover all combinations, inputs & preconditions of the system, hence we must adopt risk-based approach

23.Difference between QA v/s QC v/s Tester

Ans:

|  |  |  |
| --- | --- | --- |
| QA | QC | Testing |
| -It is Quality Assurance  -it is subset of STLC  -it is preventive activity  -it is process oriented  -it is focused on implementation of developed software | -It is Quality Control  -it is subset of QA  -it is corrective activity  -it is product oriented  -it is focused on verification of developed software | -It is Actual testing  -it is Subset of QC  -it is preventive process  -it is product oriented  -it is focused on finding & identifying the defects  In the developed software |

24.Difference between Smoke and Sanity?

Ans:

|  |  |
| --- | --- |
| Smoke | Sanity |
| -smoke testing is performed to verify that the critical functionalities of the program is working fine  -the objective of this process is to verify the stability of the system  -this type of testing is performed by the developers or the testers  -this type of testing is usually documented and scripted  -smoke testing exercises the entire system  -smoke testing is like general health check up | -sanity testing is to verify that new functionality & bugs have been fixed  -the objective of this process is to verify the rationality of the system  -this type of testing is performed by testers  -this type of testing is usually not documented  -sanity testing exercises only the component of the system  -sanity testing is like specialized health check up |

25.Difference between verification and Validation

Ans:

|  |  |
| --- | --- |
| Verification | Validation |
| -this process evaluates work products rather than actual final product  -this process is to verify that product is being built according to the requirements & design specification  -are we building the product, right?  -evaluation items include plans, requirement specs, design specs, test cases | -this process evaluates software during or at the end of the development  -this process is to verify that product meets the user’s needs  -are building the right product?  -evaluation items include the product itself |

26.Explain types of Performance testing.

Ans: Various types of performance testing are as listed below,

1.Load Testing:

This type evaluates how an application performs under normal and expected user loads.

2.Stress Testing:

Stress testing goes beyond system's specification, to evaluate how & when system fails.

3.Spike Testing:

Spike testing focuses on how the application reacts to sudden, rapid increases in load to simulate unexpected surges in traffic.

4.Volume Testing:

This type tests how an application handles large volumes of data in the database or other storage systems.

5.Scalability Testing:

Scalability testing determines if the application can handle increasing loads while maintaining performance as the user base or data volume grows.

6.Endurance Testing:

This Testing evaluates how the application performs over extended periods under sustained load. It is crucial for identifying issues like memory leaks and performance degradation over time.

27.What is Error, Defect, Bug, and failure?

Ans:

Error: A Mistake in Coding is Called an Error, which can be a missing or extra data

Defect: When a Mistake is Found by a Tester is then it is Called Defect

Bug: When a Defect is Accepted by a Developer than its called Bug

Failure: When A System Does not meet its specified requirements than it’s called a Failure

28.Difference between Priority and Severity

Ans:

|  |  |
| --- | --- |
| Priority | Severity |
| -The order in which the bug must be addressed.  -Determined by business value and impact on customers.  -Refers to the timeframe in which the issues must be addressed.  -Subjective: Can change based on comparison to other bugs and their priority levels. | -The impact of a bug on the app's functionality.  -Determined by app performance and functionality.  -Refers to the technical issues needing to be addressed.  -Objective: Not likely to change significantly as it is based on the app's functionality. |

29.What is Bug Life Cycle?

Ans: The complete Life Span of a Bug from first it found to the end when its successfully closed is called Bug Life Cycle.

30.Explain the difference between Functional testing and Non-functional testing

Ans:

|  |  |
| --- | --- |
| Functional | Non-Functional |
| -this testing is performed using the functional specification provided by the client  -functional testing is executed first  -business requirements are input to this testing type  -functional testing describes what the product does  -easy to do manual testing  -functionality testing types are:  Unit testing, smoke testing, sanity testing, integration testing, etc.. | -this testing checks the performance, reliability, scalability & other non-functional aspects of the software system  -this testing should be performed after functional testing  -performance parameters like speed, scalability is input to this testing  -nonfunctional testing describes how good the product works  -tough to do manual testing  -non-functionality testing types are: |

33.What is the difference between the STLC (Software Testing Life Cycle) and SDLC (Software Development Life Cycle)?

Ans:

|  |  |
| --- | --- |
| SDLC | STLC |
| -SDLC is a structure imposed on software development process  -Besides development other phases like testing is also included  -In SDLC, development team makes the plans and designs based on the requirements.  -Goal of SDLC is to complete successful  development of software.  -It helps in developing good quality software.  -SDLC phases are completed before the STLC phases.  -Creation of reusable software systems is the end result of SDLC. | - STLC is a structure imposed on software testing process  -It focuses only on testing the software.  -In STLC, testing team (Test Lead or Test Architect) makes the plans and designs.  -Goal of STLC is to complete successful testing of software.  -It helps in making the software defects free.  -STLC phases are performed after SDLC phases.  -A tested software system is the end result of STLC. |

34.What is the difference between test scenarios, test cases, and test script?

Ans:

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| --- | --- | --- |
| Test Scenario | Test Case | Test Script |
| -it Is any functionality that can be tested.  -it Is derived from test artifacts like Business Requirement Specification (BRS) and Software Requirement Specification (SRS).  - Helps test the end-to-end  functionality in an Agile way.  -Is more focused on what to  test.  -Takes less time and fewer  resources to create.  -Includes an end-to-end  functionality to be tested.  -The main task is to check the full functionality of a software application.  -Allows quickly assessing the  testing scope | -it Is a set of actions executed to verify particular features or functionality.  - it Is mostly derived from test scenarios.  -it Helps in exhaustive testing of an app.  -Is focused on what to test  and how to test.  - Requires more resources  and time.  -Includes test steps, data,  expected results for testing.  -The main task is to verify  compliance with the  applicable standards,  guidelines, and customer  requirements.  -Allows detecting errors and  defects | -it Is a set of instructions to test an app automatically.  -it Is mostly derived from test cases.  -Helps to test specific things repeatedly.  -Is focused on the expected  result.  -Requires less time for testing but more resources for scripts creating and updating.  -Includes different commands to develop a script.  -The main task is to verify that nothing is skipped, and the results are true as the desired testing plan.  -Allows carrying out an  automatic execution of test  cases. |

35.Explain what Test Plan is? What is the information that should be covered

Ans: Test plan is a document that describes scope, approach, resources and schedule of intended test activities.

-so, it should include scope of the test which need to be carried out, desired approaches, resources available to carry out the testing, and schedule of testing activities which will be performed on the developed software.

36.What is priority?

Ans: Priority is the Importance of the defect, which determines how soon the defect needs to be solved

37.What is severity?

Ans: Severity is the Criticality of the defect, which determines how critical the defect is

38.Bug categories are…

Ans: There two categories of bugs which are Major & Minor

39.Advantage of Bugzilla

Ans: Advantage of Bugzilla are as listed below:

-it is a bug tracking system that allows developers effectively to keep track of outstanding problems with their product.

-it can be easily linked with other test case management tools like Quality Centre, Test link etc.

-it enables users to stay connected with their clients or employees, to communicate about problems effectively throughout the data management chain.

-it includes Advanced search capabilities, Email Notifications, Modify/file Bugs by e-mail, Time tracking, Strong security, Customization, Localization

40.What are the different Methodologies in Agile Development Model?

Ans: There are two methodologies in Agile Development, which are as listed below:

1.Scrum

2.Kanban

41. Explain the difference between Authorization & Authentication in web common problems faced in web testing?

Ans: Authentication is the process of verifying the identity of a user, system, or device. It answers the question: “Who are you?”

Where,

Authorization is the process of granting or denying access to specific resources or actions within a system. It answers the question: “What are you allowed to do?”

42. When to use Usability Testing?

Ans: Usability testing should be conducted throughout the entire product lifecycle, from early design stages to post-launch optimization, to ensure a user-friendly and intuitive experience it is an iterative process that helps identify and address usability issues early and consistently.

43. What is the Procedure for GUI Testing?

Ans: To perform GUI Testing of a System a Tester will need to perform several checks on the System’s GUI, which are as listed below:

-Check for the Fonts used in application is readable

-Check that the system Messages are displayed correctly

-Check the Colour & gradients on the system is pleasing to the user

-Check GUI elements of the system for size, position, width, length

-Check the alignment of the text & images is proper

-Check for Clear boundary of different sections on screen