Assignment – 2

1. What is Software Testing?

A: Software Testing is a process used to identify the Correctness, Completeness and Quality of developed computer software.

1. What is Exploratory Testing?

A: Exploratory testing is a concurrent process where test design, execution and logging happens simultaneously. It is a type of black box testing technique performed without planning and documentation. It is usually performed by manual testers.

1. What is Traceability Matrix?

A: It is a document to trace back from every system component to the original requirement that caused its presence. Its help you keep the table up to date. It is also known as Requirement Traceability Matrix-RTM.

1. What is Boundary value testing?

A: Boundary value analysis is a methodology for designing test cases that concentrates software testing effort on cases near the limits of valid ranges. It representatives the Boundary values. It is performed by the testing teams.

1. What is equivalence partitioning testing?

A: This is a software testing technique that divides the input data of a software unit into partitions of data from which

6)What is Integration testing?

A: This testing is performed to expose the defects in the interfaces and in the interactions between integrated components and systems.

1. What determines the level of Risk?

A: A factor that could result in future negative consequences, usually expressed as impact and likelihood.

7)What is Alpha Testing?

A: Alpha testing is always performed by the developers at the software development site. It is not open to the market and public and always performed in Virtual Environment.

8)What is Beta Testing?

A: Beta testing is always performed by the customers at their own site. It is always open to the market and public and always performed in Real Time Environment.

9)What is Component Testing?

A: Component testing is a level of software testing where the individual unit/component of software are tested. Unit is the smallest testable part of any software.

10)What is Functional system Testing?

A: Functional system testing is a requirement that specifies a function that a system or system component must perform.

11)What is Non-Functional system Testing?

A: Non-Functional system is a testing of those requirements that do not relate to functionality.

12)What is GUI Testing?

A: Graphical User Interface (GUI) testing is the process of testing the system’s GUI of the system under test. 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.…

13)What is Adhoc testing?

A: Testing performed without planning and documentation and the tester tries to ‘break’ the system by randomly trying the system’s functionality. It is performed by the testing team.

14)What is White Box Testing and list the types of white box testing?

A: White box testing is a testing based on an analysis of the internal structure of the component or system having knowledge of coding.

Types of white box testing:

1. Path testing
2. Loop testing
3. Condition testing

15)What is black box testing and what are the different types of black box testing techniques?

A: Black box testing is a testing, either functional or non-functional, without reference to the internal structure of the component or system.

Techniques of Black box testing

1. Equivalence Partitioning
2. Boundary Value Analysis
3. Decision Table
4. State Transition Testing

16)Mention what are the categories of defects?

A: There are several types of categories

1. Database defect
2. Critical Functionality defect
3. Functionality defect
4. Security defect
5. User Interface defect

17)Mention what is big bang testing?

A: Bing Bang testing is a testing technique which integrates individual program modules only when everything is ready. It is performed by testing teams.

18)What is the purpose of exit criteria?

A: To check the test logs against the exit criteria specified in test planning.

To assess if more tests are needed or if the exit criteria specified should be changed.

To write a test summery report for stakeholders.

19)When should “Regression Testing” be performed?

A: When the system is stable and the system or the environment changes and when testing bug-fix releases as part of the maintenance phase.

20)What is 7 key principles? Explain in detail?

A: 1. Testing shows presence of defects: Testing show the defects are present, but cannot prove that there are no defects.

2. Exhaustive testing is impossible: Testing everything including all combinations of inputs and preconditions is not possible.

3. Early testing: Testing activities should start as early as possible in the software so that defect detected early stage in SDLC.

4. Default clustering: Some of the modules contains most of the defects and those are will not be uniformly distributed across all the modules which will lead the operational failure.

5. The pesticide paradox: If the same tests are repeated over and over again, eventually the same set of test case will no longer find any new defects.

6. Testing is context dependent: Testing is done differently in different contexts.so depend on type of application we have to plan testing.

7. Absence of error fallacy: If the system uilt is unusable and does not fulfill the user’s needa and expectations then finding and fixing defects does not help.

21)Difference between Q/A vs Q/C vs Tester?

A:

|  |  |  |
| --- | --- | --- |
| Q/A | Q/C | Tester |
| Activities which ensure implementation of Processes, procedure& standards to verification of s/w. | Activities which ensure the verification of developed software. | Activities which ensure the identification of defects/bugs in the software. |
| Process oriented activities. | Product oriented activities. | Product oriented activities. |
| Preventive activities. | It is corrective process. | It is preventive process. |
| It is subset of STLC. | It is subset of Q/A. | It is subset of Q/c. |
| Focus on processes. | Focus on execution. | Focus on testing. |

22)Difference between Smoke and Sanity Testing?

A:

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| --- | --- |
| Smoke testing | Sanity testing |
| Smoke testing is performed to ensure the critical functionalities/key features of the previous build. | Sanity testing is done to ensure 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 this testing is to verify the ‘rationality’ of the system in order to proceed with more rigorous testing. |
| This testing is performed by developers or testers | sanity testing usually performed by testers |
| Smoke testing is usually documented or scripted | Sanity testing is usually not documented or unscripted |
| Smoke testing is subset of Regression testing | Sanity testing is 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 generally like General Health Checkup | Sanity testing is generally like specialized Health Checkup |

23)Difference between verification and validation?

A:

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| --- | --- |
| Verification | Validation |
| Involves all static techniques | Involves all Dynamic techniques |
| It is perform on paper | It is perform on component |
| It is Development level | It is testing level |
| Are we building the product right? | Are we building the right product? |
| This is done without executing the software. | This is done by executing the software. |
| Ex: levels like   1. Business Analysis 2. System Design 3. Architecture Design 4. Program specification | Ex: Test levels like   1. Unit testing 2. Integration testing 3. System testing 4. Acceptance testing |

24)What are the types of performance testing?

A: Types of performance testing are:

1. Load testing/Volume testing/Scalability testing: ‘Load testing is kind of performance testing which determines a system’s performance under real life load condition.”
2. Stress testing/Endurance testing/Spike testing: “It’s a performance testing to check system behavior under extreme condition.”

25)What is Error, Defect, bug and Failure?

A: A mistake in coding is called error, error found by tester is called defect, defect accepted by development team is called bug, build does not meet the requirements then it is failure.

26)Difference between priority and severity?

A:

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| --- | --- |
| Severity | Priority |
| severity is associated with functionality | Priority is associated with scheduling |
| It indicate the seriousness of defect | It indicates how soon the bug should be fix. |
| QA engineer determine the severity level. | Priority of defect is consultation with client |
| Severity is driven by functionality | Priority is driven by business level |
| Severity levels are: Critical, Major, Minor, Moderate and Cosmetic | Priority levels are: Critical, High, Medium, Low |

27)What is Bug life cycle?

A: “The duration or time spam between the first time defects is found and the time that it is closed successfully” rejected, postponed or deferred is called as “defect life cycle”.

28)Explain difference between functional and nonfunctional testing?

A:

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| --- | --- |
| Functional testing | Non-functional testing |
| Testing based on an analysis of the specification of the functionality of a computer or system. | Testing the attributes of a computer or system that do not relate to functionality. |
| Functional testing executed first. | It should be performed after functional testing |
| Describes what the product does | Describes how good the product works |
| Easy to do manual testing | Tough to do manual testing |
| Types of functional testing:   1. Unit testing 2. Smoke testing 3. sanity testing 4. integration testing 5. white box testing 6. black box testing 7. user acceptance testing 8. regression testing | Types of non-functional testing:   1. performance testing 2. load testing 3. volume testing 4. stress testing 5. security testing 6. Migration testing 7. compatibility testing 8. installation testing |

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

A:

|  |  |
| --- | --- |
| SDLC | STLC |
| Focuses on building a product | Focuses on testing a product |
| A parent process | A child of SDLC process |
| Building a product as user requirement | Ensuring the product is working as expected. |
| SDLC phases are completed before testing. | STLC phases starts after SDLC phases are completed. |
| End goal is to deploy a high quality product to user | End goal is to finding and fixing the bugs/defects. |

30)What is the difference between test scenarios, test cases and test script?

A:

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| --- | --- | --- |
| Test scenarios | Test cases | Test script |
| A scenario is any functionality that can be tested | It involves the set of steps, condition and inputs which can be used while performing the testing tasks | A set of sequential instruction that detail how to execute a core business function |
| It is more focused on what to test | It is more focused on what to test and how to test | It is focused on expected result |
| Takes less time and fewer resources to create | Requires more resources and time | Requires less time for testing but more resources for scripts creating and updating |
| Helps test the end to end functionality | Helps in exhaustive testing of an application | Helps to test specific things repeatedly |
| It derived from software requirement specifications | It is derived from test scenarios | It is derived from test cases |

31)Explain what is test plan is? What is the information that should be covered?

A: Test plan is a high level document in which how to perform testing is described. It focus on the document is to describe what to test, when to test, how to test and who will do what test.

32)What is the different methodologies of Agile Development model?

A: Methodologies of Agile model:

1. Scrum: “ Scrum is an agile development method which concentrates particularly on how to manage tasks within a team based development environment. Basically , Scrum derived from activity that occurs during rugby match.
2. Extreme programming: This is light weight testing methodology in which development and testing happen in parallel. Business requirements are gathered in terms of stories.

33)Explain the difference between Authorization and Authentication in web testing?

A: Authorization: Accepting an invalid username/password.

Authentication: Accessibility to pages through permission not given.

34)What are the common problems faced in web testing?

A:

1. User Interface problems
2. Security problems
3. Performance problems
4. Database problems

35) Create Facebook HLR and Testcase?

A: [..\Downloads\Facebook Hlr,Test cases.xlsx](../Downloads/Facebook%20Hlr,Test%20cases.xlsx)

36) Create Instagram HLR and Testcase?

A: [..\Downloads\instagram HLR,test cases.xlsx](../Downloads/instagram%20HLR,test%20cases.xlsx)

37) Create WhatsApp web HLR and Testcase?

A: [..\Downloads\whatsapp web HLR,Testcases.xlsx](../Downloads/whatsapp%20web%20HLR,Testcases.xlsx)

38) Create Art of testing HLR and Testcase?

A: [..\Downloads\art of testing HLR, testcases.xlsx](../Downloads/art%20of%20testing%20HLR,%20testcases.xlsx)