**CHIRAG ZALA MODUAL -2 ASSIGNMENT (MANUAL TESTING)**

* **What is Exploratory testing**

Ans: Exploratory Testing is a type of software testing where Test cases are not created in advance, but testers check system on the fly. Exploratory testing is a concurrent process where Test design, execution and logging happen simultaneously.

* **What is traceability matrix?**

**Ans:** Test conditions should be able to be linked back to their sources in the test basis, this is known as traceability. To protect against changes you should be able to trace back from every System component to the original requirement that caused its presence.

* **What is Boundary value testing?**

Ans: Boundary testing is the process of testing between extreme ends or boundaries between partitions of the input values. So, these extreme ends like Start- End, Lower- Upper, Maximum-Minimum, Just Inside-Just Outside values are called boundary values and the testing is called boundary testing.

* **What is Equivalence partitioning testing?**

Ans: Aim is to treat groups of inputs as equivalent and to select one representative input to test them all. In this technique, input data units are divided into equivalent partitions that can be used to derive test cases which reduces time required for testing because of small number of test cases.

* **What is Integration testing?**

Ans: Integration Testing is a level of the software testing process where individual units are combined and tested as a group is called Integration testing.

* **What determines the level of risk?**

Ans: As Risk is determined by a combination of Probability and Severity. The levels are Low, Medium, High, and Extremely High.

* **What is Alpha testing**?

Ans: **Alpha Testing** is a type of acceptance testing; performed to identify all possible issues and bugs before releasing the final product to the end users

* **What is beta testing?**

Ans: Beta testing is performed by real users of the software application in real environment and it can be considered as a form of extern User Acceptance testing It is the final test before shipping a product to the customers.

* **What is component testing?**

Ans: Component Integration Testing: Testing performed to expose defects in the Interfaces and interaction between integrated components.

* **What is functional system testing?**

Ans: Functional Testing: Testing based on an analysis of the specification of the functionality of a component or system.

* **What is Non-Functional Testing?**

Ans: Non-Functional Testing: Testing the attributes of a component or system that do not relate to functionality reliability, efficiency, usability, interoperability, maintainability and portability.

* **What is GUI Testing?**

Ans: 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.

* **What is Ad hoc testing ?**

**Ans:** Ad hoc testing is an informal testing type with an aim to break the system. Main aim of this testing is to find defects by random checking.

* **What is load testing?**

Ans:Its a performance testing to check system behaviour under load. Testing an application under heavy loads, such as testing of a web site under a range of loads to determine at what point the system’s response time degrades or fails.

* **What is stress Testing?**

Ans: System is stressed beyond its specifications to check how and when it fails. Performed under heavy load like putting large number beyond storage capacity, complex database queries, continuous input to system or database load.

* **What is white box testing and list the types of white box testing?**

Ans: Testing based on an analysis of the internal structure of the component or system to be know.

**Types of White box Testing**

* Statement coverage
* Decision coverage
* Condition coverage
* **What is black box testing? What are the different black box testing techniques?**

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

**Types of Black box Testing**

* Equivalence partitioning
* Boundary value analysis
* Decision tables
* State transition testing
* **Mention what big bang testing is?**

Ans: Big Bang integration testing all components or modules is integrated simultaneously, after which everything is tested as a whole.

* **What is the purpose of exit criteria?**

Ans: Executed Test Cases are documented. All High prioritized bugs fixed and closed. Technical documents to be submitted followed by release Notes.

* **When should Regression Testing be performed?**

Ans: A new requirement is added to an existing feature.

A new feature or functionality is added.

The code base is fixed to solve defects.

* **What is7 key principles? Explain in detail?**
* **Ans: Testing shows presence of Defects**: Testing can show that defects are present, but cannot prove that there are no defects.
* **Exhaustive Testing is Impossible**: Testing everything including all combinations of inputs and preconditions is not possible
* **Early Testing:** Testing activities should start as early as possible in the development lifecycle.
* **Defect Clustering**: A small number of modules contain most of the defects discovered during pre- release testing, or are responsible for the most operational failures. Defects are not evenly spread in a system they are ‘clustered.
* **The Pesticide Paradox**: If the same tests are repeated overland over again Eventually the same set of test cases will no longer find any new defects
* **Testing is Context Dependent**: Testing is done differently in different contexts. Different kinds of sites are tested differently.
* **Absence of Errors Fallacy**: f the system built is unusable and does not fulfill the user’s needs and expectations then finding and fixing defects does not help.
* **Difference between QA v/s QC v/s Tester**

Ans:

|  |  |  |  |
| --- | --- | --- | --- |
| **SR.NO** | **QA** | **QC** | **Tester** |
| 1 | Process Oriented Activities | Product Oriented Activities | Product Oriented Activities |
| 2 | It is Preventative Activities | It is a corrective Activities | It is Preventative Activities |
| 3 | QA is a subset of Software testing Life Cycle | QC is a subset of QA | Tester is a subset of QC | |  |

* **Difference between Smoke and Sanity?**

Ans:

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| **SR.NO** | **Smoke testing** | **Sanity testing** |
| 1 | Smoke testing is perform to a certain that the critical functionality of the program is fine. | Sanity Testing is to check the new Functionality bugs have to be fixed |
| 2 | Smoke Testing is a subset of Regression testing | Sanity Testing is a subset of Acceptance testing |
| 3 | The testing is done by developer and tester | Sanity testing is done by tester. |

* **Difference between verification and Validation**

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| **SR.NO** | **Verification** | **Validation** |
| 1 | Before the coding is Development Phase/ Verification | After the coding it is Testing Phase/Validation |
| 2 | It is a static Testing | It is a Dynamic testing |
| 3 | Plans, Requirement Specs, Design Specs, Code, Test Cases | The actual product/software |

* **Explain types of Performance testing.**

Ans • Load testing:-It’s a performance testing to check system behavior under load.

* Stress testing: System is stressed beyond its specifications to check how and when it fails.
* Endurance testing :
* Spike testing
* Volume testing
* Scalability testing
* **What is Error, Defect, Bug and failure?**

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

* **Difference between Priority and Severity**

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| **SR.NO** | **Priority** | **Severity** |
| 1 | Priority is associated with scheduling | Severity is associated with functionality or standards |
| 2 | Priority indicates how soon the bug should be fixed | Severity indicates the seriousness of the defect on the product functionality |
| 3 | Priority status is based on customer requirements | Severity status is based on the technical aspect of the product |

* **When to used Usability Testing**

Ans: Aesthetics and design are important. Howell productions usually determine show well it works. Which Icon or Jargon represents what? Error messages are not consistent or effectively displayed Session time not sufficient.

* **What is the procedure for GUI Testing?**

Ans: MANUAL BASED TESTING: Under this approach, graphical screens are checked manually by testers in conformance with the requirements stated in business requirements document. RECORD AND REPLAY

• GUI testing can be done using automation tools. This is done in 2 parts. During Record, test steps are captured into the automation tool. During playback, the recorded test steps are executed on the Application under Test. Example of such tools- QTP.

MODEL BASED TESTING A model is a graphical description of system behaviour. It helps us to understand and predict the system behaviour. Models help in a generation of efficient test cases using the system requirements.

* **Explain the difference between Functional testing and Non functional testing.**

Ans:

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| **SR.NO** | **Functional Testing** | **Non-Functional testing** |
| 1 | Functional testing is executed first | Non Functional testing is executed after functional testing |
| 2 | Manual testing and Automation testing tools is used for it | Using tools will be effective for this testing |
| 3 | Easy to do manual testing | Tough to do manual testing |

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

Ans:

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| **SR.NO** | **SDLC** | **STLC** |
| 1 | Development Life Cycle | Testing Life Cycle |
| 2 | In SDLC, the development team creates the high and low-level design plans | In STLC, the test analyst creates the Integration Test Plan |
| 3 | SDLC phase also includes post-deployment supports and updates. | Testers, execute regression suits, usually automation scripts to check maintenance code deployed |

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

Ans:

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| --- | --- | --- | --- |
| **SR.NO** | **Test Scenario** | **Test Cases** | **Test Script** |
| 1 | It focuses on morewhat to test **than** how to test. | Test Case is a manual approach of software testing. | Test Script is an automatic approach of software testing. |
| 2 | Test scenarios are high-level actions. | Test Cases are classified as positive, reusable, negative and UI test cases. | Test Script are characterized as manual test script and automation test scripts. |

* **What is priority?**

**Ans:** Priority is Relative and Business-Focused. Priority defines the order in which we should resolve a defect.

* **What is Severity**?

Ans: Severity is absolute and Customer-Focused. It is the extent to which the defect can affect the software.

* **Advantage of Bugzilla**

Ans: Advanced search capabilities

* E-mail Notifications
* Modify/file Bugs by e-mail
* Time tracking
* Strong security
* Customization Localization
* **What is Bug Life Cycle?**

Ans: The duration or time span 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.

* **What are the different Methodologies in Agile Development Model?**

Ans: There are four types of Methodologies in Agile Development model

* Individuals and interactions,
* Working software
* Customer collaboration
* Responding to change