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MANUAL TESTING

[MODULE-2]

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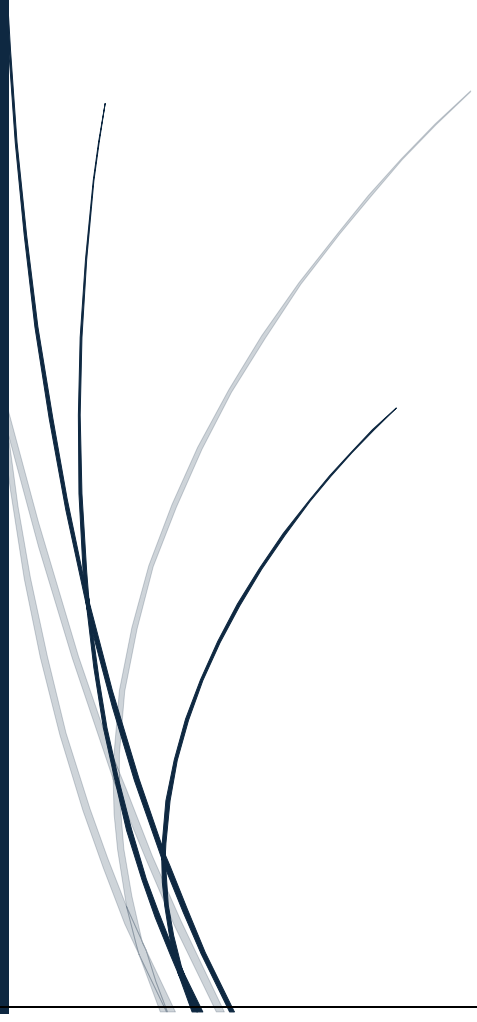

MODULE-2 MANUAL TESTING

1.What is Exploratory Testing?

- Exploratory testing is an approach to software testing that is often described as simultaneous learning, test design, and execution.

2.What is traceability matrix?

- To protect against changes, you should be able to trace back from every system component to the original requirement that caused its presence.
- Traceability is an also mapping requirement of test cases.

3.What is Boundary value testing?

- Boundary value is based on testing the boundary values of valid and invalid partitions. The behaviour at the edge of the equivalence partition is more likely to be incorrect than the behaviour within the partition, so boundaries are an area where testing is likely to yield defects.

4.What is Equivalence partitioning testing?

- Equivalence partitioning is a technique of software testing in which input data is divided into partitions of valid and invalid values, and it is mandatory that all partitions must exhibit the same behaviour.
- If a condition of one partition is true, then the condition of another equal partition must also be true, and if a condition of one partition is false, then the condition of another equal partition must also be false.
- The principle of equivalence partitioning is testing cases should be designed to cover each partition at least once.
- Each value of every equal partition must exhibit the same behaviour as other.

5.What is Integration testing?

- Integration testing is the second level of the software testing process comes after unit testing. In this testing, units or individual components of the software are tested in a group.
- The focus of the integration testing level is to expose defects at the time of interaction between integrated components or units.

6.What determines the level of risk?

- Risk is a factor that could result in future negative consequences; usually expressed as impact and likelihood.
- 1. Project risk 2. Product Risk

7.What is Alpha testing?

- Alpha testing is conducted in the organization and tested by a representative group of end-users at the developer's side and sometimes by an independent team of testers.
- Alpha testing is simulated or real operational testing at an in-house site. It comes after the unit testing, integration testing, etc. Alpha testing used after all the testing are executed.
- It can be a white box, or Black-box testing depends on the requirements - particular lab environment and simulation of the actual environment required for this testing.

8.What is beta testing?

- Beta Testing (field testing) is performed and carried out by users, or you can say people at their own locations and site using customer data.
- Beta Testing is always performed at the time when software product
- and project are marketed.

9.What is component testing?

- Component (Unit) testing is a minimal software item that can be tested in isolation. It means a unit is the smallest testable part of software.
- Unit Testing is a level of the software testing process where individual units/components of a software/system are tested.
- Unit testing is performed by using the White Box Testing method.

10.What is functional system testing?

- Functional testing is a type of testing that seeks to establish whether each application feature works as per the software requirements.
- Functional Testing: is a Testing based on an analysis of the specification of the functionality of a component or system.
- Specification – E.g. Requirements specification, Use Cases, Functional specification or maybe undocumented.

11.What is Non-Functional Testing?

- Non-Functional Testing is a type of testing used to evaluate a software application’s performance, usability, dependability, and other non-functional characteristics.
- Non-functional testing should be performed after functional testing.

12.What is GUI Testing?

- 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?

- Adhoc testing is an informal testing type with an aim to break the system.
- Adhoc testing can be achieved with the testing technique called Error Guessing.

14.What is load testing?

- It's a performance testing to check system behaviour under load.
- Load testing is a kind of performance testing which determines a system's performance under real-life load conditions.

15.What is stress Testing?

- Stress Testing is done to make sure that the system would not crash under crunch situations.
- Stress testing is also known as endurance testing.
- Performed under heavy load like putting large number beyond storage capacity, complex database queries, continuous input to system or database load.

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

- White Box Testing is a Testing based on an analysis of the internal structure of the component or system.
- White box testing is also called glass testing or open box testing.
- **TYPES OF WHITE BOX TESTING: -**

1. Statement coverage
2. Decision coverage
3. Condition coverage

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

- Black-box testing: Testing, either functional or non-functional, without reference to the internal structure of the component or system.
- The testers have no knowledge of how the system or component is structured inside the box.

- **Black Box Techniques: -**

1. Equivalence partitioning
2. Boundary value analysis
3. Decision tables
4. State transition testing

18.Mention what are the categories of defects?

- Data base defect
- Critical functionality defect
- Functionality defect
- Security defect
- User interface defect

19.Mention what big bang testing is?

- Big bang testing is a type of integration testing that combines all the components of a system into one unit and test them.
- Big Bang testing has the advantage that everything is finished before integration testing starts.

20.What is the purpose of exit criteria?

- Run out of time?
- Run out of budget?
- The business tells you it went live last night!
- Boss says stop.

- All defects have been fixed.
- When out exit criteria have been met?

21.When should "Regression Testing" be performed?

- when the system is stable and the system or the environment changes.
- when testing bug-fix releases as part of the maintenance phase.
- It should be applied at all Test Levels.
- It should be considered complete when agreed completion criteria for regression testing have been met.
- Regression test suites evolve over time and given that they are run frequently are ideal candidates for automation.

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

1. Testing shows presences of defects, not their absences: -

- We test software to discover issues, so that they can be fixed before they are deployed to live environments – this enables us to have confidence that our systems are working.
- However, this testing process does not confirm that any software is completely correct and completely devoid of issues.
- Testing helps greatly reduce the number of undiscovered defects hiding in software, but finding and resolving these issues is not itself proof that the software or system is 100% issue-free.

2. Exhaustive testing is impossible: -

- it is impossible to test everything & anything all combinations of inputs and preconditions that attempting to do so is not an efficient use of time and budget.

3. Early testing

- Early testing is often referred to as shift left. Early testing in the software development lifecycle helps to reduce or even completely avoid costly changes.
- Early testing (and testing in general) helps a company to be more economically successful.

4. Defect clustering

- This principle is an example of the 80:20 rule (also called the Pareto principle) – 80 percent of defects are due to 20 percent of code.
- While most believe this is some divine mandate, it is based on the observation that 80 percent of users use 20 percent of the software.
- It is this 20 percent of the software that will contribute most towards the defects.

5. **The pesticide paradox: -**

- if the same tests are run continuously then while they might confirm the software is working eventually, they will fail to find new issues.

6. **Testing is Context dependent: -**

- Testing is ALL about the context.
- The methods and types of testing carried out can completely depend on the context of the software or systems.
- for example, an e-commerce website can require different types of testing and e-commerce mobile application can requires different types of testing.

7. **Absence of error fallacy: -**

- If your software or system is unusable (or does not fulfil users' wishes) then it does not matter how many defects are found and fixed it is still unusable.
- So, in this sense, it is irrelevant how issue- or error-free your system is; if the usability is so poor users are unable to navigate, or/and it does not match business requirements then it has failed.

Difference between.

Que.23	QA v/s QC v/s Tester.	Click here
Que.24	Smoke v/s Sanity	
Que.25	verification v/s Validation	

26.Explain types of Performance testing.

1. Load testing
2. Stress testing
3. Endurance testing
4. Spike testing
5. Volume testing

6. Scalability testing

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

- **Error: -** A mistake in coding is called error.
- **Defect:** - Error found by tester is called defect.
- **Bug:** - defect accepted by development team then it is called bug.
- **Failure: -** Build does not meet the requirements then it is failure.

Difference between.

Que.28	Priority and Severity	Click here
Que.30	Functional testing and Non-functional testing	
Que.32	STLC v/s SDLC	

29.What is Bug Life Cycle?

- A computer bug is an error, flaw, mistake, failure, or fault in a computer program that prevents it from working correctly or produces an incorrect result. Bugs arise from mistakes and errors, made by people, in either a program's source code or its design."
- 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'.

31.To create HLR & Testcase of

1. **1)(Instagram, Facebook) only first page.**
2. **2) Facebook Login Page: https://www.facebook.com/**

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

- ..\..\TS vs TC vs TS.xlsx

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

- **Test Plan: -**
  - A document describing the scope, approach, resources, and schedule of intended test activities.
  - Determining the scope and risks and identifying the objectives of testing.

- **Information Covered: -**
  1. **Objectives: -** The main purpose of the testing and what a successful test cycle looks like.
  2. **Schedule:** - The start dates and deadlines for testers to provide results.
  3. **Resources:** - The allocation of specific tests to individual testers.
  4. **Environment: -** The characteristics, setup and accessibility of the test environment.
  5. **Tools: -** The tools that will be used for testing.
  6. **Defect management: -** The procedure for reporting bugs.
  7. **Approach:** - The overall strategy for testing, including methodologies, techniques and entry/exit criteria.
  8. **Risk management: -** A list of potential risk that may occur during testing and their effects.
  9. **Communication plan: -** A way to clearly communicate the testing schedule to all stakeholders.
  10. **Dependencies: -** Any dependencies that may exist.

35.What is priority?

- Priority as a parameter for deciding the order in which one can fix the defect.
- E.g., if an online ticket booking system fails to generate tickets after successful payment, it would be assigned a high priority.

36. What is severity?

- Severity is a measure of how much a defect or bug impacts a software is functionality, performance, or stability.
- E.g., A critical flaw that causes the software to crash or result in data loss.

37. Bug categories are.

- Security
- Database
- Functionality
- UI

38.Advantage of Bugzilla.

1. Open Source and Free
2. Highly Customizable
3. Robust Search Capabilities
4. Detailed Issue Tracking
5. Scalability
6. Permissions and Access Control
7. Email Notifications
8. Integration with Other Tools
9. Security
10. Web Interface
11. Support for Multiple Projects
12. Community Support

39.Difference between priority and severity. (same que.28)

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

1. Kanban.
2. Scrum.
3. Feature- driven development (FDD).
4. Behaviour- driven development (BDD).
5. Lean Development.
6. Adaptive software development (ASD).
7. Crystal.
8. Extreme programming.
9. Dynamic System development method (DSDM).

41.Explain the difference between Authorization and Authentication in Web testing. What are the common problems faced in Web testing?

- ..\..\Diffrence.xlsx
- Browser compatibility
- Security
- Performance
- UI testing
- Unstable environment
- System integration

42.To create HLR & Test Case of Web Based (WhatsApp web, Instagram, Art of testing).

- test scenario- whatsapp web.xlsx
- HLR&TestCase_artoftesting.xlsx

43.Write a scenario of only WhatsApp chat messages.

Que.43	WhatsApp chat messages.	Click here
Que.44	Write a Scenario of Pen.	
Que.45	Write a Scenario of Pen Stand.	
Que.46	Write a Scenario of Door.	
Que.47	Write a Scenario of ATM.	

48.When to used Usability Testing?

- Aesthetics and design are important. How well a product looks usually determines how well it works.
- There are many software applications / websites, which miserably fail, once launched, due to following reasons –
    1. Where do I click next?
    2. Which page needs to be navigated?
    3. Which Icon or Jargon represents what?
    4. Error messages are not consistent or effectively displayed
    5. Session time not sufficient.

49.What is the procedure for GUI Testing?

- Check all the GUI elements for size, position, width, length and acceptance of characters or numbers. For instance, you must be able to provide inputs to the input fields.
- Check you can execute the intended functionality of the application using the GUI.
- Check Error Messages are displayed correctly.
- Check for Clear demarcation of different sections on screen.
- Check Font used in application is readable.
- Check the alignment of the text is proper.
- Check the Colour of the font and warning messages is aesthetically pleasing.

- Check that the images have good clarity.
- Check that the images are properly aligned.
- Check the positioning of GUI elements for different screen resolution.

50.Write a scenario of Microwave Owen.

Que.50	Write a scenario of Microwave Owen	Click here
Que.51	Write a scenario of Coffee vending Machine.	
Que.52	Write a scenario of chair.	
Que.53	Create Scenario (Positive & Negative).	
Que.54	Write a Scenario of Wristwatch.	
Que.55	Write a Scenario of Lift (Elevator).	
Que.56	Write a Scenario of WhatsApp Group (generate group).	
Que.57	Write a Scenario of WhatsApp payment.	

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