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MODULE-2(Manual Testing)

•What is Exploratory Testing?

Ans: Is an approach to software testing that is often described as simultaneous learning,test design.

•What is traceabilty matrix?

Ans: Test conditions should be able to linked back to their sources in the test basis.

•What is Boundary value testing?

Ans: Is a methodology for designing test cases that concentrates software testing on cases near the limits of valid ranges.

•What is Equivalence partitioning testing?

Ans: Is the process of defining the optimum number of test by; Reviewing documents, selecting input data that is representative of all other data that would likely invoke the same process for that particular condition.

•What is Intergration testing?

Ans: Is a testing process where individual units are combined and tested as a group.

•What determine the level of risk?

Ans: Risk: is a factor that could result in future negative consequences; usually expressed as impact and likeihood’

•What is Alpha testing?

Ans: 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 enviroment .

•What is Beta testing?

Ans: Is always performed by the customers at their own site. It is always open to the market and public and performed in real time environment.

•What is component testing?

Ans: Is the first level of testing and it is performed prior to intergration testing.

•What is functional system testing?

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

•What is Non-functional Testing?

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

•What is GUI Testing?

Ans: it is the testing of responsing of controls like menu buttons, icons, tool bar, dialogue box.

•What is Adhoc testing?

Ans: Is an informal testing type with an aim to break the system.

•What is load testing?

Ans: its performed to test the application under work loads to determine at which the system performance will degrade.

•What is stress Testing?

Ans: is done to make sure that the system would not crash under crunch situations.

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

Ans: it is a way of testing the software in which the tester has knowledge about the internal structure or the code or the program of the software.

Types of white box testing

\_statement /segment coverage

\_Decision coverage

\_condition coverage

•What is black box testing? What are the different black box testing techniques?

Ans: it is a way of software testing in which the internal structure or the program or the code is hidden and nothing is known about it.

Types of black box techniques

\_Equivalence partitioning

\_Boundary value analysis

\_Decision tables

\_state transition testing

\_use-case testing

\_other black box testing

•Mention what are the categories of defects?

Ans: \_Data Quality/Database Defects

\_Critical Functionality Defects

\_Functionality Defects

\_Security Defects

\_User Interface Defects

•Mention what Bigbang testing is?

Ans:Is a type on integration testing that combines all the modules or components of a system into a single unit and tests them as whole.

•What is the purpose of exit criteria?

Ans:It defines the items that must be completed before testing can be conducted.

-Executed test cases are documented

-All high prioritized bugs fixed and closed

•When should “Regression testing” be performed?

Ans: It is performed when the software or its environment is changed.

•What is 7key principles? Explain in details?

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

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

3) Early testing: Testing activities should start as possible in the software or system development life cycle,and should be focused on defined objectives.

4) Defect clustering: Defects are not evenly spread in a system, they are clustered,A small num,ber of modules contain most of the defects discovered during pre-release testing , or are responsible for the most operational failures.

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

6) Testing is context dependent: It is basically context dependent ,it is done differently in differently in different contexts.

7)Absence of errors fallacy:If 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

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|  | Quality Assurance | Quality control | Testing |
| 1. | Focuses on process and procedures rather than actual testing on the system. | Focuses on actual testingby executing software with intend to identify bug/defect through implementation of procedures and process. | Focuses on actual testing |
| 2. | Process oriented activities. | Product oriented activities. | Product oriented activities |
| 3. | Preventive activities | It is a corrective process. | It is a preventive process |
| 4. | QA is a subset of software Test life cycle (STLC). | QC can be considered as the subset of Quality Assuarance. | Testing is the subset of Quality control. |

•Difference between smoke and sanity?

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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 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 “rationality” of the system in order to proceed with more rigorous testing |
| Smoke testing is usually documented or scripted | Sanity testing is usually not documented and is unscripted |
| This testing is performed by the developers or testers | Sanity testing is usually performed by testers |
| 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 |

•Difference between verification and validation

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| Verification | Validation |
| Involves all static techniques | Involves all dynamic technique |
| It is perform on paper | It performs on component |
| It is development level | It is test level |
| Are we building the product right..? | Are we building the right product..? |
| This test is done without executing the software | This test is done by executing the software |
| Ex: levels like(business analysis, system design, architecture design, program specification) | Ex: test levels like(unity testing, integration testing, system testing, acceptance testing) |

•Explain types of performance testing

Ans : it involves testing software applications to ensure they will perform well under their expected workload.

1) Load testing: It is a performance testing to check system behavior under load.

2) Stress testing: Is done to make sure that the system would not crash under crunch situations.

•What is Error, Defect, bug and failure?

Ans: Error: A mistake in coding.

Defect: Error found by the tester.

Bug: Defect accepted by development team then it is.

Failure: Build does not meet the requirements then it is.

•Difference between priority and severity

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| SEVERITY | PRIORITY |
| Severity is associated with functionality | Priority is associated with scheduling |
| It indicate the seriousness of defect | It indicate how soon the bug should be fixed |
| QA engineer determine the severity level | Priority of defect is consultation with the client |
| Severity is driven by functionality | Priority is driven by business level |
| Severity level are: critical, major, minor, moderate &cosmetic | Priority levels are: critical, high, medium, low |

•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.

•Explain the difference between functional testing and non functional testing

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| FUNCTIONAL TESTING | NON-FUNCTIONAL TESTING |
| Testing based on an analysis of the specification of the functionality of a component or system. | Testing the attributes of a component or system that do not relate to functionality. |
| Functional testing is 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 are  •unit testing  •smoke testing  •sanity testing  •integration testing  •white box testing  • black box testing  •user acceptance testing  •regression testing | Types of Non-functional testing are  •performance testing  •load testing  •stress testing  •security testing  •installation testing  •compatibilty testing  •migration testing |

• What is the difference between the STLC and SDLC?

Ans:

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| 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 start 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/defect. |

•What is the difference between test scenarios, test case, and test script?

ANS: 1) Test case: Test cases involve the set of steps, test description, preconditions, Expected result and Actual result which can be used to verify any feature or functionality of software application.

2) Test scenarios: A scenario is any functionality that can be tested.

3) Test script: A set of a sequential instruction that detail how to execute a core business function.

•What is priority?

Ans: It defines the order in which we should resolve the defect.

•What is severity?

Ans: It defines the impact that a given defect has on a system.

•Bug categories are

Ans: \_ Functional

\_Compatibility

\_Syntax

\_Performance

\_Usability

\_logic

\_Compatibility

\_Security

•Advantages of Bugzila

Ans: 1.Advanced search capabilities

2.E-mail Notifications

3. Modify/file bugs by e-mail

4.Time tracking

5. Customization

6. Localization

•Difference between priority and severity

ANS:

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•What are the different methodologies in Agile development model?

Ans: \_Scrum: is an agile development method which concentrates particularly on how to manage tasks within a team based development environment. Basically, scrum is derived from activity that occurs during rugby match.

\_Extreme programming: This is a light weight agile testing methodology in which development and testing happen parallel. Business requirements are gathered in terms of stories.

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

Ans:

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| Authentication | Authorization |
| Authentication verifies who the user is. | Authorization determines what resources a user can access. |
| Authentication works through passwords,one-time pins,biometric information,and other information,and provided or entered by the user. | Authorization works through settings that are implemented and maintained by the organization. |
| Authentication is the first step of a good identify and access management process. | Authorization always takes place after authentication. |
| Authentication is visible to and partially changeable by the user. | Authorization isn’t visible to or changeable by the user. |
| Example:By verifying their,identify employees can gain access to a human resources(HR) application that includes their personal pay information,vacation time,and 401k data. | Example:Once their level of access is authorized employees and HR managers can access different levels of data based on the permissions set by the organization. |

Common problems faced in web testing

1. Insufficient testing for browser compatibilty
2. Failing to conduct thorough functional testing across mobile
3. Failing to conduct thorough functional testing across desktop
4. Poor data security
5. Failing to provide an intuitive experience
6. Not performing testing frequently enough
7. Leaving digital accessibilty to the last minute
8. Releasing new features breaks the existing live system
9. Localisation and the global experience
10. The most common bugs

°write a scenario of only whatsapp chat messages

Ans:1.check the maximum length of the text field.

1. check the minimum length of the text field.
2. Check the total number of characters the text field can allow.
3. Check the textbox allows decimal numbers.
4. Check if the textbox accepts numbers only.
5. Check if the text field accepts alphabets.
6. Check if the field accepts upper case letters.
7. Check the field accepts lowercase.
8. Check the text field accepts both upper and lowercase alphabets.
9. Check the text field accepts special characters.(for example<b>)
10. Check the field accepts copy\_paste functionality.
11. Check if the cursor id displaying when you type.
12. Check the text field allowed spaces and spaces between two letters.

°write a scenario of pen

Ans:1.verify if you are able to hold the pen comfortably.

2.verify if you are able to write smoothly.

3.verify that the pen is not making any sound while writing.

4.verify the ink flow.it should not overflow nor get a break either.

5.verify if the pen can write on variety of papers like smooth,rough,thick,thin,glossy etc.

6.verify for the waterproof ink.(not for gel and ink pens)

7.verify if any other refill fits in the pen or not.

8.verify that the pen doesn’t have sharp edges or corners.

9.verify if the ink and external assembly of the pen is made of non\_toxic material.

10.verify if the pen cap is tight enough so that it will not get removed easily.

11.verify if the ink should not get overflowed.

°write a scenario of door

Ans: 1.verify the door binds on the upper corner of the jamb.

1. verify the wooden door expansion.
2. Verify the cracks in door panel/frames.
3. Verify the sticking door frames.
4. Check low wood failure rate
5. Check the peeling of laminates.
6. Check the improper lubrication that leads the hinges and rust.
7. Check the excessive gap under door panel.
8. Check the door condition when used extensively with water.
9. Check the noise is coming out from door in rainy season.
10. Check the products used on the door latch,lock,stopper.
11. Check the plywood door has weak bonding

°write the scenario of ATM

Ans:1.verify the functionality by entering a wrong pin number for 3 or more times.

1. verify the card reader functionality by inserting an expired card.
2. Verify the deposit slot functionality by inserting an invalid cheque.
3. Verify the cash withdrawal functionality by inserting invalid numbers like 10,20,50 etc.
4. Verify the cash withdrawal functionality by entering an amount greater than per day limit.
5. Verify the cash withdrawal functionality by entering an amount greater than transaction limit.
6. Verify the cash withdrawal functionality by entering an amouny greater than the available balance in the account.
7. Verify if a user will get a correct message if a card is inserted incorrectly.

°when to used usabilty testing?

Ans:Once you’ve got an idea,conduct usability testing before to work.identify specific areas where testi ng and validation can enhance your concept.After you get the results from your initial test,share them with your team.Then,continue testing users as you build a prototype.

°What is the procedure for GUI Testing?

Ans:1)create the model.

1. Determine the information as inputs in the system.
2. Verifying the expected output.
3. Execute tests.
4. Checking and validating actual vs expected.
5. Take further action on the model.