Module – 2

* What is Exploratory Testing?
* Exploratory testing is an approach to software testing that is often describe as simultaneous learning, test design and execution.
* What is traceability matrix?
* It is a table type document that is used in the development of software application to trace requirement.
* It is also known as Requirement traceability matrix and cross reference matrix.
* What is Boundary value testing?
* BVA is black box testing which is used to find the errors at boundaries of input domain rather than finding those error in center of input domain.
* What is a Equivalence partitioning testing?
* It is black box technique to identify the test cases systematically and is often first technique to be applied when designing test cases.
* What is integration testing?
* Testing performed to expose defects in the interfaces and in the interaction between integrated components or systems.
* What determines the level of risk?
* A factor that could result in future negative consequences; usually expressed as impact and likelihood.
* What is alpha testing?
* Alpha testing is the first end –to –end testing to ensure that its meets the business requirement and function correctly.
* What is beta testing?
* It is an opportunity for real users to use a product in production environment to uncover any bugs or issues before a general release.
* What is component testing?
* The testing of individual software components.
* What is functional system testing?
* A requirement that specifies a function that a system or system component must perform.
* What is non-functional testing?
* Testing the attributes of a component or a system that do not relate to functionality, e.g. reliability, efficiency, usability, maintainability etc.
* What is GUI Testing?
* GUI testing is the process of testing the system’s GUI of the system under test.
* GUI testing involves checking the screens with controls like menus, buttons , icons and all types of bars – tool bar, menu bar dialog boxes and windows etc.
* What is Adhoc testing?
* Adhoc testing is an informal testing type with an aim to break the system.
* What is load testing?
* Its a performance testing to check system behavior under load.
* Testing an application under heavy load, such as testing of a web site under a range of loads to determines at what point the system’s response time degrades or fails.
* What is stress testing?
* Stress testing 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.
* Testing based on an analysis of the internal structure of a component or system.
* Types of white box testing:
  + - Unit testing
    - Static and dynamic analysis
    - Statement, path, branch coverage
    - Security testing
    - Loop testing
* What is black box testing? What are the different black box testing techniques?
* Testing either functional or non-functional, without reference to internal structure of a component or system.
* Testing techniques:
* Equivalence partitioning
* Boundary value analysis
* Decision tables
* State transition testing
* Use- Case Testing
* Mention what are the categories of defects?
* Data quality/database Defects
* Critical Functionality Defects
* Functionality Defects
* Security Defects
* UI Defects
* Mention what big bang testing is?
* IN big bang integration testing all components or modules is integration simultaneously, after which everything is tested as a whole.
* What is the purpose of exit criteria?
* The set of generic and specific conditions, agreed upon with the stakeholders , for permitting a process to be officially completed.
* When should "Regression Testing" be performed?
* Regression testing in necessary after any feature or application enhancement, bug fix or configuration changes.
* For example, when developers add a new widget to an application.
* It is performed due to defect fixing and also performance issue fix.
* What is 7 key principles? Explain in detail?
* Testing shows presence of Defects:

🡪Testing can show that defects are present, but cannot prove that there are no defects.

🡪We test to find Faults

* 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 life cycle.

🡪Remember from our Definition of testing that Testing does not start once the code has been written.

* 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.

* The Pesticide Paradox:

🡪

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

* Testing is Context Dependent:

🡪 Testing is basically context dependent.

🡪 Testing is done differently in different contexts.

🡪 Different kinds of sites are tested differently.

* 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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| QA | QC | Tester |
| Process oriented activities. | Product oriented activities. | Product oriented activities. |
| Preventive activities | It is a corrective process | It is a preventive process |
| It is a subset of STLC | Qc is subset of QA. | It is a subset of QC |
| Verifies the quality | Validates the quality | Validates the quality |
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* Difference between Smoke and Sanity?

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| Smoke Testing | Sanity testing |
| It is a performed after software build to ascertain that the critical functionalities of the program is working fine. | It is performed to ascertain that the bugs have been fixed and no further issues are introduced do to this changes. |
| It is performed by the developers or tester | It is usually performed by the tester |
| It is a documented | It is not documented |
| It is subset of regression testing | It is subset of acceptance testing. |

* Difference between verification and Validation.

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| Verification | Validation |
| It includes checking documents, design, codes and programs | It includes testing and validating the actual products. |
| It is a static testing | It is a dynamic testing |
| It does not include the execution of code. | It include the execution of code. |
| Done by developers | Done by Testers |

* Explain types of Performance testing.
* Types of performance testing:
* load Testing: it’s a performance testing to check

system behavior under load.

🡪Testing an application under heavy loads , such as testing of a web site under a range of loads to determines at what point the system’s response time degrades or fails.

* Stress testing: it is done to make sure that the system would not crash under crunch situation.

🡪it is also known as endurance testing.

* What is error, defect ,bug and failure?
* Error->a mistake in coding is called a s error.
* Defect->error found by a tester is called as a defect.
* Bug->defect accepted by development team then it’s called as bug.
* Failure ->built does not meet the requirement then it’s called as failure.
* Different between priority and severity.

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| Severity | Priority |
| It’s driven by functionality. | It’s driven by business value. |
| It means the seriousness of the defect in the product functionality | It means how soon as bug should be fixed |
| How bad the defect is. | How soon we need to fix. |
| It is the extent to which the defect can effect the software | It is define the order in which we should resolve a defect |
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* What is bug life cycle?
* Bug life cycle in testing refers to a cycle of defects in which it goes throughout it’s life.
* The life begins with a new defect discovered by a tester while testing an application.
* Explain the difference between functional and non-functional testing?

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| Functional testing | Non – functional testing |
| It is executed first. | It is performed after functional testing. |
| Easy to do manual testing | Tough to do manual testing |
| It is describes what the product does | It is describes how good the product works |
| Types:  Unit testing, smoke testing, sanity testing ,white box testing | Types:  Load testing, stress testing, performance testing, security testing |

* To create a HLR and TEST case of

1. (Instagram, Facebook) only first page only first page

* HLR :
* Assignment 2🡪 instamobile 🡪 sheet1 :HLR
* test Case:
* Assignment 2🡪 instamobile 🡪 sheet 2 :test case

2) Facebook login page:

* HLR:
* Assignment 2 🡪 facebook 🡪sheet 1 :HLR
* test Case:
* Assignment 2🡪 facebook 🡪 sheet 2 : test case
* What is different STLC and SDLC?

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| STLC | SDLC |
| It is a testing life cycle. | It is development life cycle. |
| Limited only to testing the phase | Covers the entire life cycle of the software. |
| Stand for software testing life cycle | Stand for software development life cycle. |
| STLC fewer people are involved | SDLC a more people involved in all process |
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* What is different between test scenario, test case and test script?

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| Test scenario | Test Case | Test script |
| Is any functionality that can be tested | It is a set of sequential instruction that detail how to execute a core business function | It is involve the set of steps ,condition and inputs which can be used while performing  The testing tasks. |
| Is more focused on what to test. | Is focused on what to test and how to test | Is focused on the expected result |
| Helps test the end to end functionality is an agile way | Help in exhaustive testing of an app | Helps to test specific things repeatedly |
| Takes less time and fewer resources to create | Takes to much time and require more resources | Requires less time for testing. |

* Explain what test plan is? What is the information that should be covered?
* A document describe scope, approach, resource and schedule of intended test activities.
* The test pan covered how to test will be performed. This include defining test objectives, test approach, test tools, test environment, test schedules and composition.
* What is priority?
* Priority defines the order in which we should resolve a defect.
* This priority status is set by the tester to the developer mentioning the time frame tom fix the defect.
* What is severity?
* Severity is absolute and customer focused.it is the extend to which the defect can affect the software
* It define the impact that a given defect has on the system.
* Bug Categories are…..
* Bugs can be classified into multiple categories based on their nature and impact
* Categories are:
  + FUNCTIONAL bugs
  + Logical bugs
  + Workflow bugs
  + Unit level bugs
  + Security bugs
* Advantage of Bugzilla?
* It improve the quality of the product.
* It is quite flexible.
* It has the capability to adapt to multiple situations.
* Different between priority and severity.

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| --- | --- |
| Severity | Priority |
| It’s driven by functionality. | It’s driven by business value. |
| It means the seriousness of the defect in the product functionality | It means how soon as bug should be fixed |
| How bad the defect is. | How soon we need to fix. |
| It is the extent to which the defect can effect the software | It is define the order in which we should resolve a defect |
|  |  |

* What are the different methodologies in agile development model?
* Scrum
* Extreme programming(XP)
* Adaptive software development
* Kanban..
* FDD
* DSDM
* Behavior driven development(BDD)
* Explain the difference between authorization and authentication in web testing. What are the common problems faced in web testing.

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| Authentication | Authorization |
| It verifies who the user is | It determines what resources a user can access. |
| It is the first step of a good identity and access management process | It always takes place after authentication |
| Data generally moves through ID tokens | Data generally moves through access tokens |
| User can change their authentication  Credentials | Users can’t change their access level |

* One of the common challenges of web testing is ensure that your web app works well across different browsers, devices and operating systems.
* To create HLR & test case of web based(WhatsApp web , Instagram.

1. WhatsApp Web:

* HLR: Assignment 2 🡪 Whatsapweb 🡪 sheet 1 : HLR
* Test case: Assignment 2🡪

Whatsapweb🡪 sheet 2: test case

2. Instagram Web:

* HLR: Assignment 2🡪 insta 🡪 sheet 1:HLR
* Test case: Assignment 2🡪 insta 🡪 sheet 2:test case
* To create HLR and testCase on this link:
* HLR: Assignment 2🡪 artof testing🡪 sheet 1:HLR
* Test case: Assignment 2🡪 artof testing🡪 sheet 2:test case
* Write scenario of only whatsapp chat message:
  + Assignment 2

🡪whatasapptest scenario🡪 chat section

* write scenario of pen:
  + Assignment 2 🡪testscenario 🡪 Sheet 4 🡪pen
* write scenario of pen stand:
* Assignment 2 🡪penstand 🡪 Sheet1
* write scenario of Door:
  + Assignment 2 🡪testscenario 🡪sheet 1🡪Door
* write scenario of ATM:
  + Assignment 2🡪 testscenario 🡪sheet 2🡪 atm machine
* When to used usability testing?
* Identify specific areas where testing 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 bulid a prototype.
* What is the procedure for GUI testing?

🡪manual testing: This approach involves human tester , where each screen is manually checked to validate each functionality by creating and excuting test case:

🡪record and replay :this tools are used to test the user interface of apps.

🡪model based testing.

* Write a scenario of microwave own?
* Assignment 2🡪 testscenario🡪 Sheet 3🡪microwave ovan
* Write a scenario of coffee vending machine?
* Assignment 2🡪 testscenario🡪 Sheet 7🡪 Coffee vending Machine.
* Write a scenario of chair?
* Assignment 2🡪 testscenario🡪 Sheet 6🡪 Chair.
* To create scenario (positive & negative)

2. Gmail:

* Assignment 2 🡪 gmailtest 🡪 shee1:gmail

2.online shopping to buy product.(filpKart):

* Assignment 2🡪 filpkarttest🡪 sheet 1:filpkart
* Write a scenario of wrist watch.
* Assignment 2 🡪 testscenario🡪 Sheet 8🡪Wrist watch.
* Write a scenario of Lift.
* Assignment 2 🡪 testscenario🡪 Sheet 9🡪lift.
* Write a scenario of whatsapp group?
* Assignment 2 🡪whatasapptest scenario 🡪 sheet1:Group
* Write a scenario of whatsapp payment.
* Assignment 2 🡪 whatasapptest scenario 🡪 sheet1: payment.