**Module:2 &4[Manual Testing]**

1. **What is Exploratory Testing?**

* **Exploratory testing is a concurrent process where test design, execution and logging happen simultaneously.**

1. **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.**

**3 What is Boundary value testing?**

* **Boundary value analysis is a methodology for designing test cases that concentrates software testing effort on cases near the limits of valid ranges.**

**4 What is Equivalence partitioning testing?**

* **Aim is o treat groups of inputs as equivalent and to select one representative input to test them all.**

**5 What is Integration testing?**

* **Testing performed to expose defects in the interfaces and in the interactions between integrated components or systems.**

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

* **Risk are two types:-**

1. **Project risk:-**

~ **Example of project risk id senior tram member leaving the project**

1. **Product risk:-**

~ **Product risk would be flight reservation system not installing in test environment mitigation in this case.**

**7 What is Alpha testing?**

* **Alpha testing is always performed by the developers at the software development site. Sometime it is also performed by Independent testing team.**

**8 What is beta testing?**

* **Beta testing is always performed by the customers at their own site. It is not performed by independent testing team.**

**9 What is component testing?**

* **A minimal software item that can be tested in isolation. It means “A unit is the smallest testable part of software.**

**10 What is functional system testing?**

* **A requirement that specifies a function that a system or system component must perform.**

**11 What is Non-functional testing?**

* **Testing the attributes of a componentor system that do not relate to functionality.**

**12 What is GUI testing?**

* **Graphical User Interface (GUI) testing refers to the validating UI functions or features of an application that are visible to the users, and they should comply with business requirements.**

**13 What is Ad hoc testing?**

* **Ad hoc testing is a type of software testing which is performed informally and randomly after the formal testing is completed to find out any loophole in the system.**

**14 What is load 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 arrange of loads to determine at what point the system’s response time degradesor fails.**

**15 What is stress testing?**

* **System is stress beyond its specifications to check how and when its fails. 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?**

* **Testing based on an analysis of the internal structure of the component or system.**

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

* **Testing, either functional or non-functional, without reference to the internal structure of the component or system**

**18Mention what are the categories of defects?**

* **Types of defects:-**
* **Data quality defects**
* **Critical functionality defects**
* **Functionality defects**
* **Security defects**
* **UI defects**

**19 Mention what big bang testing is?**

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

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

* **Purpose of exit criteria is to define when we STOP testing either at the end of all testing.**

**21 When should “regression testing” be performed?**

* **Software maintenance is an activity which includes enhancements, error corrections, optimization and deletion of existing features.**

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

1. **Testing shows presence of defects**
2. **Exhaustive testing is Impossible**
3. **Early Testing**
4. **Defect clustering**
5. **The Pesticide Paradox.**
6. **Testing is Context Dependent**
7. **Absence of errors fallacy**

**1] Testing shows presence of defects: Testing reduces the probability of undiscovered defects remaining in the software but, even if no defects are found, it is not a proof of correctness.**

**3]Early Testing: Testing activities should start as early as possible in the software or system development life cycle, and should start as early as possible in the development life cycle.**

**4]Defect Clustering: Defect are not evenly spread in a system they are clustered.**

**5]Pesticides 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.**

**6]Testing is context dependent: Different kinds of sites are tested differently.**

**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.**

**23 Difference between QA v/s QC v/s Testing?**

|  |  |  |
| --- | --- | --- |
| **QA** | **QC** | **TESTING** |
| 1. **It is a subset of software test life cycle (STLC).** | 1. **QC can be considered as the subset of Quality Assurance.** | 1. **Testing is the subset of Quality Control.** |
| 1. **Preventive activities.** | **2) It is a corrective process.** | **2) It is a preventive process.** |
| 1. **Process oriented activities.** | **3) Product oriented activities** | **3) Product oriented activities.** |
|  |  |  |

**24 Difference between smoke and sanity?**

|  |  |
| --- | --- |
| **Smoke testing** | **Sanity testing** |
| **1) This testing is performed by the developers or tester.** | **1) Sanity testing is usually performed by tester.** |
| **2) Smoke testing is usually documented or scripted.** | **2) Sanity testing is usually not documented and is unscripted.** |
| **3) Smoke testing is a subset of regression testing.** | **3) Sanity testing is a subset of acceptance testing.** |
| **4) Smoke testing exercises he entire system from end to end.** | **4) Sanity testing exercises only the particular component of the entire system** |
| **5) Smoke testing is lie General health check up.** | **5) Sanity testing is like specialized health check up.** |

**25 Difference between verification and validation:**

|  |  |
| --- | --- |
| **Verification** | **Validation** |
| **1) Verification Development levels side.** | **1) Validation Testing level side.** |
| **2) Verification before code.** | **2) Validation After code.** |
| **3) Verification is a static** | **3) Validation is a dynamic.** |
| **4) Verification start with phases with all parallel plan.** | **4) Validation all phases with to start testing.** |

**26 Explain types of performance testing**

* **Performance Testing:-Software performance testing is a means of quality assurance(QA).It involves testing software applications to ensure they will perform well under their expected workload.**

**Types of performance testing:-**

1. **Stress testing:- 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.**

* **Stress testing tools**

**Stress tester**

**Neo load**

**App perfect**

1. **Load testing:- It’s 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 determine at what point the system’s response time degrades or fails.**

* **Load testing tools**

**Load runner**

**Web load**

**Astra load test**

**Review’s web load**

**Studio, rational site load**

**Silk performer**

1. **Endurance testing**
2. **Spike testing**
3. **Volume testing**
4. **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.**

**28 Difference between priority and severity**

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| --- | --- | --- |
|  | **Priority** | **Severity** |
| **1** | **Priority Based on the expected bug impact** | **Severity Based on the bug itself** |
| **2** | **Priority extrinsic quality of the bug** | **Severity intrinsic quality of the bug** |
| **3** | **Priority set by the developer** | **Severity set by the tester** |
| **4** | **Priority may depend on priorities of other open bugs** | **Severity depends on a single bug** |
| **5** | **Priority typically dynamic** | **Severity typically static** |

**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.**

**30 Explain the difference between functional testing and non functional testing**

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| **Functional Testing** | **Non-Functional Testing** |
| **1) Functional testing is executed first.** | **1) Non-functional testing should be performed after functional testing.** |
| **2) Manual testing or automation tools can be used for functional testing.** | **2) Using tools will be effective for this testing.** |
| **3) Business requirements are the input to functional testing.** | **3) Performance parameters like speed, scalability are inputs to non-functional testing.** |
| **4) Functional testing describes what the product does.** | **4) Non-functional testing describes how good the product works.** |
| **5) Easy to do manual testing.** | **5) Tough to do manual testing.** |

**31What is the difference between the STLC(software testing life cycle)and SDLC(software development life cycle)?**

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| --- | --- |
| **STLC** | **SDLC** |
| **STLC is mainly related to software testing.** | **SDLC is mainly related to software development.** |
| **STLC it focuses only on testing the software** | **SDLC besides development other phases like testing is also included.** |
| **STLC involves only five phases or steps.** | **SDLC involves total six phases or steps.** |
| **STLC goal is to complete successful testing of software** | **SDLC goal is to complete successful development of software.** |
| **STLC testing team makes the plans and designs.** | **SDLC development team makes the plans and designs based on the requirements.** |

**32What is the difference between test scenarios, test cases, and test script?**

* **Test Scenarios:-A Scenario is any functionality that can be tested. It is also called test condition, or test possibility.**
* **Test Cases:-Test cases involve the set of steps, conditions and inputs which can be used while performing the testing tasks.**
* **Test Script:-A set of sequential instruction that detail how to execute a core business function.**

**33Explain what test plan is? What is the information that should be coverd.**

* **A document describing the scope, approach, resources and schedule of intended test activities.**

**34What is priority?**

* **Priority as a parameter for deciding the order in which one can fix the defect. In this, the defect with a higher priority first needs to get fixed. Priority basically defines the order in which one would resolve any given defect.**

**35What is severity?**

* **Severity as the extent to which any given defect can affect/impact a particular software.**

**36Bug categories are……**

* **Functional bugs ,logical bugs ,workflow bugs ,unit level bugs ,system-level integration bugs ,out of bound bugs ,and security bugs.**

**37advantage of Bugzila**

* **Advanced search capabilities**
* **E-mail Notifications**
* **Modify/file bugs by e-mil**
* **Time tracking**
* **Strong security**
* **Customization Localization**

**38What are the different Methodologies in agile development model?**

* **Kanban ,scrum ,extreme programming ,crystal ,dynamic system development method feature –driven development**

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

|  |  |
| --- | --- |
| **Authorization** | **Authentication** |
| **1) Authorization determines what resources a user can access.** | **1) Authentication verifies who the user is.** |
| **2) Authorization works through settings that are implemented and maintained by the organization.** | **2) Authentication works through passwords, one-time pin, biometric information and other information provided or entered by the user.** |
| **3) Authorization isn’t visible to or changeable by the user.** | **3) Authentication is visible to an partially changeable by the user.** |
| **4) Authorization always takes place after authentication.** | **4) Authentication is the first step of a good identity and access management process.** |
|  |  |

**40Write a scenario of only whatsapp chat messages**

* **Live scenario Microsoft excel,sheet-1**

**42write a scenario of pen**

* **Real scenario Microsoft excel, sheet 1-pen**

**43 write a scenario of pen stand**

* **Real scenario Microsoft excel, sheet 10-pen stand**

**44 write a scenario of door**

* **Real scenario Microsoft excel, sheet 2-door**

**45 write a scenario of ATM**

* **Real scenario Microsoft excel, sheet 11-ATM**

**46 When to used usability testing?**

* **Conducting usability tests before any design decisions are made helps us identify the most important user pain points.**

**47What is the procedure for GUI tesing?**

* **Create the model, determine the information as inputs in the system, verifying the expected output.**

**48Write a scenario of microwave Oven**

* **Real scenario Microsoft excel, sheet 8-Microwave oven**

**49Write a scenario of coffee vending machine**

* **Real scenario Microsoft excel, sheet 7-coffee vending machine**

**50 write a scenario of chair**

* **Real scenario Microsoft excel, sheet 5-chair**

**51To create scenario (Positive& Negative)**

**1.facebook chat on mobile**

* **Live Scenario-Microsoft excel,sheet3-facebook chat on mobile**

**2.Gmail(receiving mail)**

* **Live Scenario-Microsoft excel,sheet5-Gmail**

**3.Online shopping to buy product (flipkart)**

* **Live Scenario-Microsoft excel,sheet4-flipkart**

**52 Write scenario of wrist watch**

* **Real scenario Microsoft excel, sheet 6-wrist watch**

**53 write a scenario of Lift (Elevator)**

* **Real scenario Microsoft excel, sheet 4-Lift**

**54 write a scenario of whatsapp Group(generate group)**

* **Live scenario Microsoft excel,sheet-1 whatsapp group**

**55 write a scenario of instagram(video call with chat)**

* **Live scenario Microsoft excel,sheet-2-instagram**

**56 write a scenario of whatsapp payment**

* **Live scenario Microsoft excel,sheet-1 whatsapp payment**

**57To create HLR& TestCase of**

**1)(Instagrm,facebook)only first page**

* **HLR & TESTCASE Microsoft excel, sheet 1,2-Insagram,facebook**

**2)facebook login page**

* **HLR & TESTCASE Microsoft excel, sheet 1,2-Insagram,facebook**

**58To create HLR& TestCase of web based(Whatsapp web, Instagram)**

**1)Whatsapp web**

* **HLR & TESTCASE Microsoft excel, sheet 3,4-whatsapp web instagram web**

**2)Instagram web**

* **HLR & TESTCASE Microsoft excel, sheet 3,4-whatsapp web instagram web**

**59To create HLR& TestCase on this link.https://artoftesting.com/**

* **HLR & TESTCASE Microsoft excel, sheet 5,6-artoftesting**