**Manual Testing**

1.Software testing?

During testing, we check whether the product has been built according to the requirements.

 If any defects or issues are found, we raise a bug report to the development team for resolution.". it can be corrected before the product release in the market.

2.Benefits of software testing?

* Cost-Effective
* Security
* Product quality
* Customer Satisfaction

3. **What are the two main categories of software testing?**

**1🡪manual testing**

Manually Execute the testcases without using any automation tool. Testing is done by humans, QA tester.

**2🡪Automation testing.**

Executing the testcases using assistance tool. The main focus of automation is to replace the manual human activity with system or device that enhance efficiency.

4. **. Why is Software Testing Required?**

Software testing is a mandatory process that guarantees that the software product is safe and good enough to be released to the market.

5.Difference b/w quality control and quality assurance?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  | | --- | | **Quality Control** |   It is not involved in development phase | |  | | --- | | **Quality Assurance** | |  |   It is involved in development phase |
| Quality control is a product-oriented approach.  It is involved in execution phase of the software.  It focuses on ensuring that the quality of the product assured is delivered. | Quality assurance is a process-oriented approach.  It is not involved in execution phase of the software.  It focuses on assuring that the product delivered will be of best quality. |

6. **What is quality control? Is it similar to Quality Assurance?**

Quality control is a product-oriented approach of running a program to determine if it has any defects, as well as making sure that the software meets all of the requirements put forth by the stakeholders.

7. **What different types of manual testing are there?**

* Black Box Testing
* White Box Testing
* Unit Testing
* System Testing
* Integration Testing
* Acceptance Testing

8.Alpha Testing?

It is a type of software testing performed to identify bugs before releasing the product to real users or to the public. Alpha Testing is a type of user acceptance testing.

9.Beta testing?

It is performed by real users of the software application in a real environment. Beta Testing is also a type of user acceptance testing.

Customer  provides the feedback, which is then implemented to improve the quality of a product.

10. Difference b/w Verification and validation?

Verification: validation

|  |  |
| --- | --- |
| Verification is Static Testing. | Validation is Dynamic Testing. |
| Verification occurs before Validation.  Process oriented approach | Validation occurs after Verification.  Product oriented approach |
| Verification evaluates plans, document, requirements and specification. | Validation evaluates products. |

11. Advantages of Manual Testing?

* Ensure error free product.
* Human intelligence
* Cost effective for small project
* Simplicity
* Easy to learn for new manual tester

12. Disadvantages of manual testing?

* Expensive for big project
* Time consuming for (time constrained project and large organization)
* Human error
* Difficult to measure

13. **Name some of the manual testing tools.**

* Postman
* DB tools
* Message queue monitor

14.Manual Tester roles and responsibilities?

* Analyse client requirements
* Create environment for executing the test cases
* Executing and analysing the test cases
* Detect bugs

15. **Describe the manual testing process.**

* Requirement analysis
* Test plan creation
* Design test scenarios and test cases
* Test execution and defect reporting
* Evaluating exit criteria and reporting
* Test closure activities

16. **what the different levels of manual testing are?**

* **Unit testing- test the individual componenets**
* Integration testing- test the integrated componenents
* **System testing- test the entire system**
* Acceptance testing- test the final system.

**17. In order to perform manual testing, what skills are required?**

* A strong analytical ability.
* Knowledge of SDLC, STLC, SQL, and manual concepts.
* An understanding of test management tools, test tracking tools, and testing techniques.

18. Difference b/w BlackBox , Whitebox and Gray box testing?

**BlackBox**

🡪Black box testing does not need the implementation knowledge of a program.

🡪It is a user acceptance testing, i.e., it is done by end users.

**Graybox**

**->** Gray box testing knows the limited knowledge of an internal program.

🡪 It is also a user acceptance testing.

**Whitebox**

**🡪** In white box testing, implementation details of a program are fully required.

-> Testers and programmers mainly do it.

19. Difference b/w functional and non functional testing?

🡪anything you validate the product functionally is called functional testing

|  |  |
| --- | --- |
| **It will testing the functionality of an application** | **It verifies behaviour of an application** |
| **Easy to execute manually** | **Hard to execute manually** |
| **It is based on the business requirements** | **It is based on the performance requirements** |

**20.Example of functional and non functional testing?**

**Functional**

1. Unit Testing

2. Smoke Testing

3. Integration Testing

4. Regression Testing

**Non functional**

1. Performance Testing

2. Load Testing

3. Stress Testing

4. Scalability Testing

### 21. **What is Positive and Negative Testing?**

**Positive**

To give a valid data set as input

Ex: age=12

**Negative**

To give a invalid dataset as input

Ex: age=ab

22.Difference b/w static and dynamic testing?

|  |  |
| --- | --- |
| static | dynamic |
| We will check the code/application without executing the code | We will check the code/application by executing the code |
| Based on verification process | Based on validation process |
| Static testing includes activities like code Review, Walkthrough, etc. | Dynamic testing includes activities like functional and non-functional testing such as UT (usability testing), IT (integration testing), ST (System testing) & UAT (user acceptance testing). |

**23.** **What is exploratory testing?**

In this testing, the tester uses his domain knowledge and testing experience to predict where and under what conditions the system might behave unexpectedly.

**Ex: Amazon**

24**.  When should exploratory testing be performed?**

Exploratory testing is performed as a final check before the software is released. It is a complementary activity to automated regression testing.

**25.Smoke testing?**

The critical functionality of each and every feature should be validated, and this is done in the production environment. This process is similar to black box testing. Once the smoke testing passes, the feature is qualified for regression testing.

**Ex: Ecommerce website**

If this function is working correctly, then the tester will pass it in testing and test the next function of the same application.

26.Sanity testing?

It is also called Build Verification Testing(BVT) and Build Acceptance Testing(BAT).

Sanity testing was performed when we are receiving the software build (with minor code changes) from the development team.

in other words, Sanity testing is conducted to ensure that all defects have been resolved and no new issues have arisen as a result of the modifications.

**Ex: login feature for a website**

**27. Regression testing?**

Regression testing is a type of testing where you can verify that the changes made in the codebase do not impact the existing software functionality.

**Ex: e-commerce website that sells clothing online.**

, before releasing this new feature to the users, the QA team needs to perform regression testing to ensure that the changes made to the code do not affect the existing functionality of the website.

28.Unit testing?

It is more or less White Box testing. Unit testing, is a testing technique using which individual modules are tested to determine if there are any issues by the developer himself. It is concerned with the functional correctness of the standalone modules.

The main aim is to isolate each unit of the system to identify, analyze and fix the defects.

29.Integration testing?

It is a type of software testing in which the different units, modules or components of a software application are tested as a combined entity. However, these modules may be coded by different programmers.

The aim of integration testing is to test the interfaces between the modules and expose any defects that may arise when these components are integrated and need to interact with each other.

30.freature testing?

Whenever a new software feature is to be rolled out, it must be tested thoroughly, and this testing is known as **feature testing**.

31.performance testing?

Checking the behavior of an application by applying some load is known as performance testing.

32.load testing?

The load testing is used to check the performance of an application by applying some load which is either less than or equal to the desired load is known as load testing.

33.stress testing?

It is nothing but increasing stressing the application. Identify the breaking point of the application and how soon it recovers back.

The stress testing is testing, which checks the behavior of an application by applying load greater than the desired load.

34.volume testing?

Volume testing is a type of software testing that involves checking an application's behavior by inserting a large volume of data.

35.spike testing?

It is a type of software performance testing that is done by suddenly increasing or decreasing the load on the system or software application.

36. when can stop the testing?

all testcase are executed then we will stop the testing. sometime management will decide when to stop the testing.

* After testcase execution
* Once the testing deadline is met

37. where we can start the testcases?

Once the SRS document is ready, then we start testing we don’t need to wait until the build is ready

38.Moneky testing?

It is a software technique, if user check the application by giving the random inputs, they are having any no prior coding knowledge and testing knowledge.

39.adopt testing?

They are having coding knowledge and they will pick random functionality and doing the testing is called adopt testing.

40. Difference between bug leakage and bug release?

**Bug leakage:**

Developer developing the product, tester testing the product, once the testing is done. Then the product is released to the customer. If customer find any defect is called bug leakage.

**Bug Release:**

They are releasing the product with lower priority defect is called bug release.

41. **Test case design techniques**

When the software is tested, the tester will write as many testcases and different scenarios as possible. Whenever the tester is writing the test cases they will follow the specific methods and approaches.

1. **Error guessing**
2. **Eqyalance partitioning**
3. **Boundary value analysis**

The goal of these methods is to check both positive and negative values are tested thoroughly.

**Error guessing**

This is a technique used for drafting test cases by guessing the errors. It is more like Negative testing for a particular testcase.

Error guessing is a technique in which there is no specific method for identifying the error. It is based on the experience of the test analyst, where the tester uses the experience to guess the problematic areas of the software.

Equivalence partitioning

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 behavior.

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.

Boundary value analysis

The basic assumption of boundary value analysis is, the test cases that are created using boundary values are most likely to cause an error.

if text field can accept only values b/w 1 to 10

decision table technique

Decision table technique is a combination of rules and conditions.

No. of test cases= no.of rules =2 power(no.of.conditions)

State transition technique

It is used to capture the behavior of the software application when different input values are given to the same function.

**Example:**

Requirement:

If a user enters the wrong password 3 times, then the account should be blocked.

42. severity and priority?

Severity

Impact of the bug on the application

**Blocker**: if the severity of a bug is a blocker ,which means we cannot proceed to to the next module.

**Critical:** if severity of a bug is critical ,it means main functionality is not working fine.

**Major**: it means supporting components and modules are not working fine.

**Minor:** if the severity of a bug is major ,which means all UI problems are not working fine

43.Priority

It is important for fixing the bug

**High**: it is the major impact of the customer application, it has be fixed first

**Medium**: problem should be fixed before the release in current version development

**Low**: the problem should be fixed if there is a time, it can be deffered with the next release.

44.Bug life cycle

New🡪assigned🡪fixed🡪close

🡪reopen🡪rejected🡪deffered🡪duplicate

* New – A bug or defect when detected is in a New state.
* Assigned – The newly detected bug when assigned to the corresponding developer is in the Assigned state.
* Open – When the developer works on the bug, the bug lies in the Open state.
* Rejected/Not a bug – A bug lies in rejected state in case the developer feels the bug is not genuine.
* Deferred – A deferred bug is one whose fix gets deferred for some time(for the next releases) based on the urgency and criticality of the bug.
* Fixed – When a bug is resolved by the developer it is marked as fixed.
* Test – When fixed the bug is assigned to the tester and during this time the bug is marked as in Test.
* Reopened – If the tester is not satisfied with the issue resolution the bug is moved to the Reopened state.
* Verified – After the Test phase, if the tester feels the bug is resolved, it is marked as verified.
* Closed – After the bug is verified, it is moved to Closed status.

45.System testing?

To check end to end flow of an application or the software as a users known as system testing.

**Ex:** [**www.reddiiff.com**](http://www.reddiiff.com)

**46.Difference b/w testing and debugging?**

|  |  |
| --- | --- |
| **testing** | **Debugging** |
| To test the software products and identifying the defects | Process of fixing and resolving defects is known as debugging |

**47.why we are using SDLC?**

To give quality product

48.acceptance testing?

*It is a formal testing according to user needs, requirements and business processes conducted to determine whether a system satisfies the acceptance criteria or not and to enable the users, customers or other authorized entities to determine whether to accept the system or not.*

49.user acceptance testing?

User acceptance testing (UAT) is a type of testing, which is done by the customer before accepting the final product.

50. categories of defect?

cosmetic defect, color mis matach, spelling mistake, different logo, diff company name

blocker user defect.

51.Security testing?

Security testing is a testing technique which determines that the data and resources be saved from the intruders.

If we perform security testing, then it helps us to identify all the possible security threats and also help the programmer to fix those errors.

52.Restesting?

Retesting is the process of testing that checks the test cases which were failed in the final execution.

53. what is the purpose of exit criteria?

The exit criteria are used to define the completion of the test level.

54.Example of boundary value analysis and decision table technique?

55.Scalability testing?

Another type of [performance testing](https://www.javatpoint.com/performance-testing) is **scalability testing**, which comes under the [non-functional testing](https://www.javatpoint.com/non-functional-testing) of [software testing](https://www.javatpoint.com/software-testing-tutorial).

It is used to check an application's performance by increasing or decreasing the load in particular scales known as **scalability testing**. It is executed at a **hardware, software, or database level**.

56.stability testing?

It comes under the [Non-Functional Testing](https://www.javatpoint.com/non-functional-testing) directed as part of [performance testing](https://www.javatpoint.com/performance-testing).

**Stability testing** is a [software testing](https://www.javatpoint.com/software-testing-tutorial) procedure where we analyze the application's performance by applying the load for a particular duration of time.

57.compatability testing?

It is part of non-functional testing.

Checking the functionality of an application on different software, hardware platforms, network, and browsers is known as compatibility testing.

58.Accessibility testing?

Accessibility testing is another type of [software testing](https://www.javatpoint.com/software-testing-tutorial) used to test the application from the physically challenged person's point of view.

59.what is difference b/w bug, defect and error?

Bug:

It is an informal name specified to the defect.

Defect:

The **Defect** is the difference between the actual outcomes and expected outputs.

Error:

An **Error** is a mistake made in the code; that's why we cannot execute or compile code.

60. what is difference b/w fault and failure?

Fault:

The **Fault** is a state that causes the software to fail to accomplish its essential function.

Failure:

if the software has lots of defects its leads to be failure.

61. waterfall model? – sequential approach

<https://www.javatpoint.com/jira-waterfall-model>

62.advantages of waterfall model?

* Easy to learn and understand and use
* Phase do not overlap

63.disadvantage of waterfall model?

* Time to market is high
* Unexpected results
* Not suitable for changing the requirements

64.Agile process? – iterative approach

<https://www.javatpoint.com/jira-agile>

65.scrum?

 Scrum is an agile framework that helps you to organize, iterate, and continue the same project that you are working on. In scrum, a product is built in the series of iterations known as sprints or parts.

66.sprint?

Sprint is a time-boxed period in which the scrum team needs to finish the set amount of work. Each sprint has a specified timeline, i.e., 2 weeks to 1 month. The scrum team agrees with this timeline during the sprint planning meeting.

67.scrum master?

Scrum Master is defined as a facilitator or servant-leader to the Scrum development team. Scrum Master must ensure that scrum principles are followed.

68.scrum development team?

A scrum development team is a collection of individual members that includes developers, QA, and scrum master. It decides and provides the effort estimate. The recommended size of the scrum team is between 5 and 9 members.

69. how does scrum work?

In the Waterfall model, we have read that the first whole requirements are done, then the whole designing is done, then whole development is done, and then whole testing and deployment is done.

This model takes full lifecycle of the product, and then the only product is viewable to the client. While Scrum says that consider a small part of the software and then plan it, build it, test and finally review it. This small module which has been developed will be shown to the customers.

For example, we need to develop the e-commerce website, which can be broken into a number of sprints or modules such as login page, payment page, cart page, etc. Then, each module is developed individually and shown to the customers simultaneously. Therefore, we can say that after the completion of each sprint, the product is shipped to the client, though not the complete product but the part of the functionality.

70.scrum roles?

* **ProductOwner**  
  There is a client who wants to develop his software, so he approaches to the company who can develop his software. What does the company do? The Company assigns a role, i.e., Product Owner. Product Owner is the person who communicates with the clients understands their requirements. Product Owner is the responsible person from the company for software development.
* **ScrumMaster**  
  During the sprint, Agile says that the team should meet together once daily. When the team is following scrum means that they are conducting meetings daily for 10 to 15 minutes. This meeting is known as a scrum meeting. Scrum Master is the person who handles the scrum meeting.
* **Team**  
  The team comprises of persons who work on the project. It can be developers, testers or designers. When we talk about Agile or Scrum then we talk about the team, we do not talk about developers, or testers as an individual. Agile says that developers can work as a tester or testers can work as a developer when the need arises.

71.scrum ceremonies?

* **SprintPlanning**  
  Scrum consists of a number of sprints which have a different set of modules used to deliver the software. Before starting the sprint planning, we have a meeting known as sprint planning, and in sprint planning, we discuss what we are going to do in a sprint. In sprint planning, product owner discusses about each feature of a product and estimates the effort involved by the development team.
* **DailyScrum**  
  In Scrum, meetings are conducted daily for 15 minutes by Scrum Master, where Scrum Master is the person who manages the meeting. Meeting consists of scrum master, developers, testers, designers, product owner, the client where product owner and client are optional.
* **SprintReview**  
  After the completion of each sprint, the meeting is conducted with a client in which a product is shown to the client for demo and team discuss the features they added in the project.

72.working of sprint?

https://www.javatpoint.com/jira-working-of-sprint

Topics:

* Client/stakeholders
* Product owner
* Product backlog
* Sprint backlog
* Sprint
* Sprint delivery
* Sprint review and retrospective meeting

73.Scrum board?

* Product backlog
* Sprint backlog
* Scrum board
* **Product Backlog:** Product Backlog is a set of activities that need to be done to develop the software.
* **Sprint Backlog:** Sprint Backlog is a backlog that has taken some of the activities from the product backlog which needs to be completed within this sprint.
* **Scrum Board:** Scrum Board is a board that shows the status of all the activities that need to be done within this sprint.

74. **Scrum Board consists of four status:**

1. Open
2. In progress
3. Testing
4. Close

75. retrospective meeting?

**A retrospective** is another meeting which is held between team members. In this meeting, they discuss what is right in this sprint and what went wrong in this sprint, such as the issues hampering their work.

**76.why is testing required?**

* Time saving for development team.
* To give the quality product
* Identify the defects in earlier stages.

77. **what are the different activities involved in Quality assurance?**

* Document review
* Testcase review
* Walkthrough
* Inspection

78. **what are the different types of testing involved in QC?**

1. Functional testing
2. Performance testing
3. Usability testing

**79.What is SDLC?**

**SDLC** stands for [Software Development Life Cycle](https://artoftesting.com/software-development-life-cycle-sdlc). It describes the various phases involved in the software development process. With the help of SDLC, we can create software applications in a well-defined and systematic way.

**The different phases of the Software Development Life Cycle are**-

* **Requirement Gathering and Analysis** – In this phase, all the requirements are gathered and analyzed for their feasibility.
* **Designing** – In this phase, the requirement specifications are converted into design specifications.
* **Coding/Implementation** – Actual coding is done here.
* **Testing** – This phase involves testing the software product.
* **Deployment** – The software is deployed to production for the end user.
* **Maintenance** – Due to changes in the environment and for continuous improvement maintenance is required.

**80.what is STLC?**

**STLC** stands for the [Software testing life cycle](https://artoftesting.com/software-testing-life-cycle-stlc). It refers to all these activities performed during the testing of a software product. Basically, it provides a sequence of activities performed to ensure the quality of the software application.

**The different phases of the Software Testing Life Cycle are-**

* **Requirement Analysis** – In this phase, the high-level analysis of the requirements is done.
* **Test Planning** – In this phase, a test strategy and approach are defined.
* **Test Case Development** – The test cases are created in this phase.
* **Test Environment Setup** – Here, the test environment is created in which the test execution will be performed.
* **Test Execution** – Test cases are executed and defects are logged for the failed tests.
* **Exit Criteria Evaluation and Reporting** – Based on the agreed-upon exit criteria, the testing activities are marked as complete.
* **Test Closure** – A test closure document is prepared which contains all the testing activities performed and the bugs found. This phase marks the formal closure of the testing phase.

81. **What are some advantages of automation testing?**

* Time saving
* Remove the chances of human error.
* Improved precision

**82.  What are some disadvantages of automation testing?**

* Complexity
* Expensive to install.

83. **What is a test plan?**

A [test plan](https://artoftesting.com/test-plan-document-template) is a formal document describing the scope of testing, the approach to be used, the resources required, and the time estimate for carrying out the testing process. It is derived from the requirement documents (Software Requirement Specifications).

84. **What is a test scenario?**

A Test Scenario is a statement describing the functionality of the application to be tested. It is used for end-to-end testing of a feature and is generally derived from the use cases.

85. **What is a Test case?**

A test case is a set of conditions for evaluating a particular feature of a software product . It is a set of conditions with pre-requisites, input values, and expected results in a documented form.

**86.test case attributes?**

1. Test case id
2. Test summary
3. Description
4. Pre-requisite
5. Test steps
6. Test data
7. Expected result
8. Actual result
9. Test result
10. Automation status
11. Date
12. Executed by

**87.what is test data?**

Test data is data that is used to test the software with different inputs and helps to check whether the corresponding output is as per the expected result or not. This data is created based on the business requirements.

88. **What is a Test script?**

A test script is an automated test case written in any programming or scripting language. These are basically a set of instructions to evaluate the functioning of an application.

89. **What are some defect reporting attributes?**

* Defect id
* Defect description
* Defect summary
* Steps to reproduce
* Expected results
* Actual results
* Defect severity
* Priority

90. **What are some of the bug or defect management tools?**

jira, Bugzilla, Redmine, Mantis, Quality Center, etc.

91. **What is defect density?**

Defect density is the measure of the density of the defects in the system. It can be calculated by dividing the number of defects identified by the total number of lines of code(or methods or classes) in the application or program.

92. **What is defect priority?**

A defect priority is an urgency of fixing the defect. Normally the defect priority is set on a scale of P0 to P3 with the P0 defect having the most urgency to fix.

P0-urgensy to fix

P1-high

P2-medium

P3-low

93. **What is defect severity?**

 Defect severity is the severity of the defect impacting the functionality. Based on the organization, we can have different levels of defect severity ranging from minor to critical or show stopper.

94. **What is End-To-End Testing?**

End-to-End testing is a type of testing where the entire application undergoes testing, to test that each functionality of the software is working as expected and there is no loophole remaining in it. It ensures that the application is user-friendly and meets the business requirements.

95. **What is Adhoc Testing?**

Adhoc testing is an unstructured way of testing that is performed without any formal documentation or proper planning.

96. **What is UI testing?**

UI or user interface testing is a type of testing that aims at finding Graphical User Interface defects in the application and checks that the GUI conforms to the specifications.

**97.what is usability testing?**

Checking the user-friendliness, efficiency, and accuracy of the application is known as Usability Testing.

98. **What is localization** **testing?**

Localization testing is a type of testing in which we evaluate the application’s customization(a localized version of the application) in a particular culture, locale or country.

**99. What is globalization testing?**

 Globalization testing is a type of testing in which an application is evaluated for its functioning across the world in different cultures, languages, locales, and countries.

100. **What is penetration testing?**

Penetration testing or pen testing is a type of security testing in which an application is evaluated(safely exploited) for different kinds of vulnerabilities that any hacker could exploit.

101. **What is the requirement traceability matrix(RTM)?**

In software testing, a [requirement traceability matrix](https://artoftesting.com/requirements-traceability-matrix-rtm) is a table that relates the high-level requirements with detailed requirements, test plans, or test cases. RTM helps in ensuring 100% test coverage.

102. **What are the entry criteria in software testing?**

* White box testing should be finished.
* Understand and analyze the requirement and prepare the test documents or when the test documents are ready.
* Test data should be ready.
* Build or the application must be prepared
* Modules or features need to be assigned to the different test engineers.
* The necessary resource must be ready.

103. **What is the exit criteria in software testing?**

* When all the test cases are executed.
* Most of the test cases must be **passed**.
* Depends on severity of the bugs which means that there must not be any blocker or major bug, whereas some minor bugs exist.

104. **What is a scrum meeting?**

A scrum meeting is a daily meeting in the scrum process. This meeting is conducted by the scrum master and an update of the previous day’s work along with the next day’s task and context is defined in this meeting.

105. **Top-Down Testing?**

**This strategy involves testing software systems from top to bottom according to the control flow. Tests are conducted first on the higher-level modules, followed by tests and integration of the lower-level modules to verify the functionality of the software.**

**106.** **Bottom-Up Testing:?**

* **This strategy involves testing lower-level modules first, then moving on to higher-level modules. As long as top-level modules have been tested, the process continues. Upon integrating and testing the lower-level modules, the next level of modules will be created.**

**107.what is big bang testing?**

**It involves integrating all the modules and components at once and then testing them as a whole (single unit).**

**108.what is software?**

A Software is a collection of computer programs that helps us to perform a task.

**109.types of software?**

1**) System software** - Ex: Device drivers, Operating Systems, Servers, Utilities, etc.

**2) Programming software** - Ex: compilers, debuggers, interpreters, etc.

**3) Application software** - Ex: Web Applications, Mobile Apps, Desktop Applications etc.

**110. Software Quality Depends Upon?**

* Product should be bug free
* Delivered on time
* Within the budget
* It meets the specified requirements.
* Proper maintenance.

**111. Difference between Product and Project:?**

If software application is developed for specific customer based on the requirement, then it is called as **project.**

♣ If software application is developed for multiple customers based on market requirements, then it called **as product.**

**112.** **Why Software has the Bugs?**

🡪 If there is a Miscommunication or no communication between development and testing team.

♣ If the frequently changing requirements from client.

♣ Lack of skilled testers.

**113. What are the 3 pillars of any company?**

♣ P-People.

♣ P- Process.

♣ P- Product.

**114.what is protype?**

Prototype is nothing but the visualization of functionality before development.

♣ When the requirement came from client, business analyst prepare a prototype model to show them(client).

♣ After approval from client they will work on it as design, development, coding and testing.

♣ Then build or application is deploy to the client side.

**115.Team size?**

**• Project Team**- New features/ functionality/ Module. Ex. Paytm – Invest in stock.

♣ Project team size is 24 to 26 people.

σ Deliver manager (1) – Project delivery to client.

σ Project manager (1) - Project task assign/ work need perform with the time/ team handling.

σ Business analysis (1) - BA interaction client and collect the requirement/ functionality/ New features. σ Designer/ Solution architecture (1) - project application design.

σ Developer (14 to 16) – Developer will code for application.

σ Tester (5 to 6) – Tester will do testing on developer application.

**• Support Team** – Existing application issue/ defects/ end user quires/ Ticket Ex. PaytmRecharge module

♣ Support team size 9 peoples.

σ Project manager/ Support manager (1) - Support task assign/ work need perform with the time/ support team handling.

σ Developer (5 to 6) – Developer will code for application.

σ Tester (1 to 2) – Tester will do testing on developer application.

**116. Who decide the process for software?**

🡪If client have their own IT department then they will define the process or approach for software.

🡪If not then our company will decide the process for software.

**117. Types of Process Model for building the software**?

* Basic SDLC
* 2. Waterfall Model
* 3. V-Model
* 4. Agile Methodology or model

118.static testing involves review, walkthrough, inspection?

**Review:**

* Requirement review
* Design review
* Code review
* Testcase review

**Walkthrough:**

* It is informal review.
* Author reads the documents or code and discuss with peers.
* At least 2 people are required to perform the review.

**Inspection**

* It’s a most formal review type.
* In which at least 3- 8 people will sit in the meeting 1- reader 2-writer 3- moderator plus concerned.
* Inspection will have a proper schedule which will be intimated via email to the concerned developer/tester.

**119.dynamic testing advantages and disadvantages?**

**Advantages:** Testing is involved in each and every phase.

**♣ Disadvantages:** Documentation is more. Initial investment is more.

**120. How will you receive the project requirements?**

♣ The finalized SRS will be placed in a project repository; we will access it from there.

**121. What will you do with SRS?**

♣ SRS stands for software requirement specification.

♣ SRS is used to understand the project functionality from business and functional point of view.

**122. Is the testing team involved in SRS preparation?**

🡪Business analyst prepare the SRS document by interacting with the client.

♣ However a senior testing team member can also be involved in requirements collections along with the development team and the business analyst team.

**123. How does your requirements document look like?**

♣ It contains lots of use cases where each use case explains one or more functionalities.

**124.How will you understand the requirements?**

♣ If it is known domain by going through use cases I can understand the requirements.

♣ If I have some queries, I will discuss them with business analyst for clarifications.

♣ If it is new domain, first I will get domain training them I go through the use cases.

♣ If the project requirements are very confusing, then (BA) can also walk through each use case.

**125. How do u understand functionality without screens?**

♣ We get wireframes in the use cases which helps a lot to understand the functionality.

**126. What is wireframe?**

♣ A diagram which stimulates the feel of the actual screen.

**127.What is use case?**

♣ Use case explains the step by step procedure of how a particular functionality of s/w is used by the end user.

**♣ Use case contains sections such as**.

σ **Use case id. σ Use case name. σ Description. σ Flow of events. σ Alternative flow of events. σ pre, post conditions**

**128. What will be the problem without SRS?**

σ Without SRS we will not be able to understand the project features correctly. σ Hence we will not able to test the project in depth and deliver the best quality product.

**129. What are the different sections present in SRS?**

♣ Scope

♣ Features

♣ User characteristics

♣ Software requirements

♣ Hardware requirements

♣ Performance requirements

♣ Use cases

♣ Security and reliability requirements.

**130. How long do u spend on understanding SRS?**

**🡪**It depends on the familiarity of the domain and complexity of the project

. ♣ If it is a familiar domain, we can understand around 25 pages of the documentation every day. For a new complex domain, we manage around 15 pages per day.

**131.adavntages of agile methodology?**

* Requirement changes are allowed at any stage of development.
* Release will be very fast.
* Customers no need to wait for long time.
* Good communication between team.
* It is an easy model to adopt.

**132.disadvantages of agile methodology?**

* Less focus on the design and documentation since we deliver the software very faster.
* If frequent changes in requirement/ US, we can’t deployment/ delivery these US to client

**133.terminologies used in agile?**

**Agile:** It is continuous process of development & testing.

**♣ Sprint:** It is collection of requirement or bunch of user stories.

**♣ Burn down Chart:** How much user story remaining with respect to time. In simple words, how much work remaining with respect to time.

♣ Burn up Chart: How much user story completed with respect to time.

**♣ Estimation**: Time slot provide to complete the work or User Story. ♣

Velocity: Amount of work completed within sprint with respect to the estimation. It define sprint wise how much deployment of user stories to client.

**♣ Epic**: It is nothing but the Main Module.

**134.what is done & ready status?**

♣ Done: US is totally work completed for development & testing .US deployed to client then Userstory status is Done.

♣ Ready: : US is totally work completed for development & testing .US is not yet deployed toclient then User story status is Ready.

**135.Agile ceremonies?**

**• Grooming Session:**

Discussion: Here PO explains about the all user stories to team, those user stories which aregetting shortlisted for the sprint.

**Sprint Planning Meeting:**

User Stories shortlisted here. Discussion about the user stories. Everyone sharetheir about the time, approach, strategy for development and testing. Based on this story points gets decided to each user stories.

**Daily Standup Meeting:**

Here everyone provide their work update to the scrum master. If any blocker inwork then communicate with the team and get the solution.

**Sprint Review Meeting:**

: Here we have to provide demo on what we completed within the sprint to the stakeholder. Then Stakeholder provide their review to the team .This is the time for team celebration for their accomplishment.

**Sprint Retrospective Meeting**

: Here we discuss about the previous sprint. What good things we have done .What bad things we have done .Here we set the goal for next sprint.

**136.epic?**

It is nothing but main module

**137.story points?**

It is rough estimation of user story is given by developer and QA in the form of Fibonacci series.

**138. What are the different artifacts in agile?**

Product backlog, sprint backlog, burndown chart, burn up chart etc.

**139. When are a delivery/ deployment in your project?**

In my project we are working in Scrum Agile methodology, where we will work for two week/ three week (Monday to Friday).

♣ In my project we will Delivery/ deployment on – Saturday/ Monday.

**140. Who will do the Delivery/ deployment?**

In my all project, developer will do deployment to all environment & to the client.

**141. Different types of technology in your project?**

->Frond end is Dot net languages

♣ Services is Java languages

♣ Backend/ Database is SQL Server

**142. What is product backlog**?

🡪The product backlog is a kind of bucket or source where all the user stories are kept.

σ This is maintained by the product owner.

**143.sprint backlog?**

Based on the priority, user stories are taken from the Product Backlog as one at a time.

**144. How do you calculate a story point?**

A story point is calculated by taking into consideration the development effort+ testing effort + resolving dependencies and other factors that would require to complete a story.

**145.what is defect report?**

🡪In TCE, if we found defects, we will created defects in JIRA/ TFS.

σ Inform to developer through email.

σ After defects fix then we will performed e-testing & regression testing.

σ It is project level documents.

146. Test Closure/ Test Summary Report?

**147. Who is responsible for writing test cases?**

Test cases will be written by tester

σ While preparing test cases, we will consider.

**148. What you have to maintain while executing the test cases?**

♣ As per test cases we have to test functionality.

♣ While test case execution, tester will prepared the test proof.

♣ In TCE, if we found defects then raised/ create in JIRA/ TFS tool.

♣ Inform to developer throw email (JIRA/ TFS).

♣ Test proof will contains- Test cases against screen-shot.

**149.what is review?**

Review defines correctness & completeness of the documents.

**150.types of review?**

* **Self review-self**
* **Peer review-senior member**
* **Internal review-business analyst**
* **External review.-client**

**151. Which parameter consider in Test cases review?**

* **Simple**
* **Understandable**
* **No duplicates**
* **Grammatically correct**

**152.** **What is test log?/test execution report?**

**σ It is a report of what tests have been executed and their status like pass/ fail.**

**153. How do you know your test cases are completed?**

**We follow two step approaches to ensure that test cases are completed.**

**σ Reviews-- it ensures that quality of the test cases is good.**

**σ Requirement traceability matrix ---it ensures that all requirements have been covered through test cases.**

**154. How do you find whether a test case is a good test case or bad test case?**

A good test case should be documented clearly, so that it can be executed by anyone without any difficulties and confusion.

**155.test coverage?**

**Test coverage defines what percentage of application code is tested and whether the test cases cover all the code.**

**156.code coverage?**

**Code coverage is a white-box testing technique performed to verify the extent to which the code has been executed.**

**157.types of integration testing?**

1. **Big bang**
2. **Bottom-up**
3. **Top-down**
4. **Hybrid**

**158.** **What is a driver?**

In the case of bottom-up integration testing, drivers are used to simulating the working of top-level modules in order to test the related modules lower in the hierarchy.

159. **What is configuration testing?**

Configuration testing is the type of testing used to evaluate the configurational requirements of the software along with the effect of changing the required configuration.

160. **What is robustness testing?**

 Robustness testing is a type of testing that is performed to find the robustness of the application i.e. the ability of the system to behave gracefully in case of erroneous test steps and test input.

161. **What is concurrency testing?**

 Concurrency testing is multi-user testing in which an application is evaluated by analyzing the application’s behavior with concurrent users accessing the same functionality.

162. **What is backend testing?**

Backend testing is a type of testing that involves testing the backend of the system which comprises testing the databases and the APIs in the application.

163. **What is a test harness?**

A test harness is a collection of test scripts and test data usually associated with the unit and integration testing.

**164. V-model?**

V-Model also referred to as the Verification and Validation Model. In this, each phase of SDLC must complete before the next phase starts. It follows a sequential design process same as the waterfall model. Testing of the device is planned in parallel with a corresponding stage of development.

<https://www.javatpoint.com/software-engineering-v-model>

**165. When to use V-Model?**

* The V-shaped model should be used for small to medium-sized projects where requirements are clearly defined and fixed.

**166. Advantage (Pros) of V-Model:**

1. Easy to Understand.

2.This saves a lot of time. Hence a higher chance of success over the waterfall model.

1. 3. Works well for small plans where requirements are easily understood.

**167. Disadvantage (Cons) of V-Model:**

1. Very rigid and least flexible.
2. Not a good for a complex project.

**168. automation feasibility report?**

all test cases are not manually tested they will think this testcase is automation testing part so they will report to the team.

**169. black box testing technique?**

Equivalence partitioning ,

boundary value analysis,

decision table,

state transition

**170. goal of manual testing?**

Ensure software quality,

finding defects ,

verifying functionality

**171. white box techniques example?**

* **Data flow**
* **Control flow**
* **Branch testing**
* **Loop testing**

**172. dynamic testing techniques example?**

* **Acceptance testing**
* **System testing**
* **Integration testing**
* **Unit testing**

**173. purpose of test baseline?**

**To provide a reference point for future testing activities.**