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1. What are the main Sections usually described in the Test Plan Document?

- Scope
- Approach
- Resources
- Schedule

2. Describe what are entry and exit criteria described in Test Plan and how they are being defined?

Entry criteria is a set of requirements and conditions, which are required to be achieved to create suitable condition for testing.

Entry criteria mentioned in test plan

- Available testable code
- Defined test requirements
- Access to test data
- Test cases
- Test tools
- Test environment

Exit criteria is a set of requirements that are required to be achieved before the end of testing process. Exit criteria permits to outline if there are still outstanding parts to finalize and complete the whole test process against the whole scope of requirements.

Exit criteria mentioned in test plan

- Meets deadlines and budget
- Executed all test cases
- Completed Functional coverage
- Close of defined critical bugs
- Executed regression testing and re-testing

3. Mention and describe the different types of software testing (the most important once)

Functional and Non-Functional testing

Functional testing evaluates the functionality, actions, outputs that should be performed.

Non-Functional testing evaluates performance, behavior, interface.

4. What's the difference between re-testing and regression testing?

Regression testing is a type of testing where, it is checked whether the fixing of bug (changed code) didn't affect the other units and functionality.

Retesting is a type of testing where, after fixing bugs, a previously failed testing process is re-executed.

5. What non-functional testing types exist?

- Performance testing
- Load testing
- Stress testing
- Compatibility testing
- Usability testing

6. What is a Load Test?

Load test is when a software/webpage is tested under an expected huge load to show the behavior while it is being accessed by multiple users simultaneously. The goal is to get the same response/output regardless of the number of users.

7. How would you understand that application is ready for release to live?

Application is ready to release when the exit criteria meet the entry requirements, functional, usability, compatibility beta version testing is passed.

8. What is a bug/defect in the application?

The bug/defect in the application occurs when it is not working properly, as per requirements, produces an unexpected result.

9. What is a bug priority?

Bug priority is a need to understand how urgently and in which order it should be fixed.

10. What is the severity of the bug?

The severity of the bug shows the functionality damage which could be caused by bug when it is being used.

11. Give an example of a bug with High priority but low severity, bring another example of vice versa.

High priority low severity – wrong design Instagram logo in 4u.am webpage which is working properly.

High severity low priority – not working link to the under-construction webpage part which is mentioned that will be ready in 2 months.

12. Please, do the following:

- a. Write down the Test Cases (or high-level Test Checklists) which will cover the most Test scenarios to test the Elevator.
- b. Mention which of the Test Cases are the most Prior ones for Test.
- c. Choose one of the Test Cases you have written down and describe the full steps for this Test Case.

Functional Requirements:

1. FR010 - Elevator should go up and down from 0 - 10 floors.
2. FR020 - Elevator should have the capacity to carry 3–4 person or up to 250 kg load in one time.
3. FR030 - Elevator should have self-open and closing doors.
4. FR040 - There are UP and DOWN buttons outside the elevator on each floor.
5. FR050 - There is only UP button on the bottom floor and only DOWN button on the Top floor.

a. Elevator check Test Cases

- Check that the Elevator goes up and down, and according to called direction
- Check that the Elevator works when carries up to 3-4 person or up to 250 kg
- Check that the Elevator stops on each floor and on mentioned floor, after pressing according button

- Check that the Elevator's doors opened after stop
- Check that the Elevator's doors closed after pressing floor button
- Check whether the Elevator goes to nearest floor first in the case of calls from different floors
- Check that there is UP and Down button outside the elevator on each floor
- Check that there is only UP button on the bottom floor and only DOWN button on the Top floor.

b.

- Check that the Elevator goes according called direction
- Check that the doors aren't opening in case that the Elevator isn't there
- Check that the Elevator doesn't work in case of more than 3-4 people or 250 kg
- Check that the doors are always closed before the Elevator starting to move.

c.

1. Press the button outside the Elevator
2. Wait the Elevator to come and the doors are opened
3. Enter the Elevator with 4 another person
4. Press the 4-th floor button
5. Check whether the Elevator doesn't work with 5 people inside and there is notification
6. One of the persons left the Elevator
7. Press again 4-th floor button
8. Wait to the doors closed
9. Check the Elevator goes up

13. Describe a Bug Life Cycle by mentioning all States and Transitions (feel free to use graphical representation).

- New
- Assigned
- Open
- Fixed
- Pending retest
- Retest
- Verified
- Closed

14. Please describe phases of Software Development Life Cycle (SDLC)

- Requirements gathering – information collection from customer, understanding the expectations, creation of SRS (software requirements specification) document
- Design – design based on SRS document, preparation of Design document
- Implementation – implementation/coding based on Design document
- Testing – testing the developed software using regression testing and retesting
- Deployment – User acceptance testing, positive customers expectations release of software
- Maintenance – maintenance of software after release in environment

15. Please name activities that being done within and after sprint, while working in agile environment

- Product backlog
- Determine sprint plan
- Set sprint goal
- Sprint backlog
- Scrum meetings
- Sprint review
- Finished work

16. How would you know that it's time to stop testing, and consider the application tested and ready for release?

17. Manager or QA lead tells you that you have 10 minutes to test your application, how would you handle testing in 10 minutes?

18. What is Negative testing? How is it different from Positive testing?

Negative testing performs the process of testing when the incorrect inputs could be used. For example, wrong validation information in registration process.

During the positive testing the valid data is used to check the response.

19. What is meant by Verification and Validation?

Verification mostly is an internal process to understand whether product is complies with requirements and specifications.

Validation is a process to understand whether the product meets customers and other external beneficiaries needs.

20. What do you mean by table and field in SQL?

SQL table is a collection of data with columns and rows. A field in SQL is a unit with one piece of information.

21. What are joins in SQL?

- Inner join
- Left join
- Right
- Full join