**Testing Exercises:**

1. What is the primary goal of manual testing?
   1. To find defects in software
   2. To automate the testing process
   3. To reduce the time required for testing
   4. To increase the efficiency of developers

1. Which of the following is NOT a phase of the manual testing process?
   1. Test Planning
   2. Test Execution
   3. Test Automation
   4. Test Closure

1. Which type of testing involves testing the software as a whole to ensure that all components work together?
   1. Unit Testing
   2. Integration Testing
   3. System Testing
   4. Acceptance Testing

1. Which testing technique involves testing a system's functionality without knowing its internal code structure?
   1. White-box testing
   2. Black-box testing
   3. Gray-box testing
   4. Glass-box testing

1. What is exploratory testing?
   1. Testing based on pre-defined test cases
   2. Testing without any specific test cases or plans
   3. Testing only the critical functionalities
   4. Testing performed by an external team

1. In which phase of the software development lifecycle is manual testing typically conducted?
   1. Requirement Analysis
   2. Design
   3. Implementation
   4. Testing

1. What is the purpose of regression testing?
   1. To validate if the software meets the specified requirements
   2. To ensure that new changes haven't adversely affected existing functionality
   3. To test the software in various operating environments
   4. To verify if the software is user-friendly

1. Which of the following is NOT a common type of manual testing?
   1. Functional Testing
   2. Performance Testing
   3. Security Testing
   4. User Acceptance Testing

1. What is the main advantage of manual testing over automated testing?
   1. Greater test coverage
   2. Faster execution of tests
   3. Human intuition and creativity
   4. Consistency in test execution

1. What is the purpose of smoke testing?
   1. To verify if the software is stable enough for further testing
   2. To test the core functionalities of the software
   3. To test the software in various browser environments
   4. To ensure that the software meets all specified requirements

1. What is the purpose of usability testing?
   1. To verify if the software performs efficiently under high load
   2. To ensure that the software is user-friendly and intuitive
   3. To test the software across different operating systems
   4. To check for security vulnerabilities in the software

1. Which testing technique involves executing the test cases in a random order to identify defects?
   1. Ad-hoc Testing
   2. Boundary Testing
   3. Equivalence Partitioning
   4. Sanity Testing

1. What is the main focus of acceptance testing?
   1. Validating if the software meets specified requirements
   2. Testing individual components or modules of the software
   3. Evaluating the overall performance of the software
   4. Ensuring that the software is compatible with different devices

1. Which of the following is NOT a commonly used manual testing technique?
   1. Boundary Value Analysis
   2. Equivalence Partitioning
   3. Fuzz Testing
   4. Code Coverage Analysis

1. What is the purpose of ad-hoc testing?
   1. To verify if the software performs well under normal conditions
   2. To execute pre-defined test cases systematically
   3. To test the software without any specific test cases or plans
   4. To test the software in different languages and locales

1. What is the main advantage of pairwise testing?
   1. It ensures that every possible combination of inputs is tested
   2. It reduces the number of test cases while providing good coverage
   3. It focuses solely on testing user interfaces
   4. It allows for automated test execution without human intervention

1. Which type of testing involves executing test cases in a controlled environment that simulates the production environment?
   1. Alpha Testing
   2. Beta Testing
   3. Regression Testing
   4. Smoke Testing

1. What is the primary purpose of sanity testing?
   1. To ensure that the software meets all specified requirements
   2. To verify if the software is stable enough for further, more comprehensive testing
   3. To test the software in a variety of real-world scenarios
   4. To evaluate the software's performance under varying load conditions

1. Which testing technique involves testing the software's response to unexpected inputs or conditions?
   1. Negative Testing
   2. Positive Testing
   3. Boundary Testing
   4. Equivalence Partitioning

1. What is the primary focus of compatibility testing?
   1. To verify if the software performs efficiently under high load
   2. To ensure that the software is compatible with different devices, browsers, and operating systems
   3. To test individual components or modules of the software
   4. To evaluate the software's security features

1. What is the primary goal of regression testing?
   1. To ensure that the software meets specified requirements
   2. To verify if the software is stable enough for release
   3. To ensure that new changes haven't introduced defects in existing functionality
   4. To test the software in various operating environments

1. Which testing technique involves testing the software's ability to recover from crashes or failures?
   1. Recovery Testing
   2. Performance Testing
   3. Compatibility Testing
   4. Installation Testing

1. What is the main focus of localization testing?
   1. To verify if the software performs efficiently under high load
   2. To ensure that the software is compatible with different devices
   3. To test the software's behavior in different locales and languages
   4. To evaluate the software's security features

1. Which of the following is NOT a category of software testing?
   1. White-box testing
   2. Black-box testing
   3. Gray-box testing
   4. Blue-box testing

1. What is the purpose of static testing?
   1. To verify the software's behavior under varying load conditions
   2. To test the software without executing the code
   3. To simulate real-world usage scenarios
   4. To evaluate the software's compatibility with different devices

1. What is the primary focus of boundary testing?
   1. To test the software's ability to handle unexpected inputs or conditions
   2. To test the software's response to extreme or boundary values
   3. To verify if the software meets specified requirements
   4. To ensure that the software is user-friendly and intuitive

1. What is the purpose of test case prioritization?
   1. To ensure that all test cases are executed in a specific order
   2. To which test cases should be executed first based on their importance
   3. To allocate resources for test case execution
   4. To generate additional test cases identify automatically

1. Which testing technique involves testing the software's ability to handle large volumes of data?
   1. Volume Testing
   2. Stress Testing
   3. Load Testing
   4. Scalability Testing

1. What is the main focus of smoke testing?
   1. To verify if the software is stable enough for further testing
   2. To test the core functionalities of the software
   3. To test the software's performance under varying load conditions
   4. To test the software's compatibility with different devices

1. What is the primary goal of acceptance testing?
   1. To verify if the software meets specified requirements
   2. To ensure that the software is user-friendly and intuitive
   3. To identify defects in the software
   4. To test the software's performance under varying load conditions
2. Define Software Development Life Cycle (SDLC) and briefly explain its primary phases.
3. What are the main objectives of the Requirements Gathering phase in SDLC?
4. Explain the significance of the Design phase in the SDLC process.
5. Discuss the importance of thorough Testing during the SDLC.
6. Differentiate between Waterfall and Agile methodologies in SDLC. Highlight the advantages and disadvantages of each.
7. What is the purpose of the Implementation phase in SDLC? How does it differ from the Deployment phase?
8. Describe the role of stakeholders in the SDLC process. How do their involvement and feedback influence project outcomes?
9. Explain the concept of Iterative Development in the context of SDLC. How does it contribute to project success?
10. Discuss the importance of Documentation throughout the SDLC. What types of documents are typically produced at each phase?
11. How does the Maintenance phase contribute to the overall success and sustainability of a software product? Discuss the activities involved in this phase.
12. Outline the key challenges faced during each phase of the SDLC and propose strategies to mitigate them.
13. Describe the role of Quality Assurance (QA) and Quality Control (QC) in ensuring the reliability and quality of software products during SDLC.
14. Explain the concept of Risk Management in SDLC. How can risks be identified, assessed, and mitigated throughout the software development process?
15. Discuss the importance of Change Management in SDLC. How should changes be managed to minimize disruptions and ensure project success?
16. Describe the role of Project Management in overseeing and coordinating the various activities within the SDLC. What skills are essential for an effective project manager in this context?

Q&A:

Testing :

It is the one of the process of the software development and here testers involve and checking the development software is properly or not it is know as testing.

Quality of software:

1.QA (Quality assurance)---------🡪verification

2.QC (Quality control)--------🡪validation

3.QE (Quality engineer)--------🡪Automation script

**Keywords :**

Errors: made by human

Defects: exception to actual behavior

Bug: any errors on defects we can bug the errors

Failure: Total will be failure in real time also.

SDLC (SOFTWARE DEVELOPMENT LIFE CYCLE):

It is a software design to develop the project .

It has 7 ways to develop the SDLC:

* Requirements Gathering
* Analysis and planning
* Design
* Coding
* Testing
* Deployment
* Maintenance

Requirements and Gathering:

Here business analyst will collect the requirements from the client. After gathering the requirements will prepare the document **Business Requirements** **Specifications** (BRS). After sending requirements to forward to analysis**.**

**Analysis and planning:**

It is used for analysis and the understanding the documents what are the requirements are used .After the analysis the (BRS) document and there always prepare a **software requirements speciation(SRS) document**.

And planning what are logical which program we use ,no. of team members,.

**Design :**

In this we use both documents are used BRS and SRS documents .And we create blue print of the project .

**Code:**

we can write code what is client requirements like java ,c, etc.. which is code done for the client requirement we can write code.

**Testing:**

In testing we test the code any errors are defects like that we check it. They are some steps :

1.verification

2. validation :After the code to check the development software is properly or not.

Verification:

Before the code we verify. It is know as a static tester. It is a white box testing .it is know as a module tester.

In white box design techniques are:-

1. syntax coverage
2. Conditional coverage
3. Loop coverage
4. Mutation coverage

Functional Testing:-

In functional testing means it is action will be perform like click on button will be work or out link buttons etc.. are used.

Non-Functional testing :-

Non-functional method will be used graphical visible .

**Deployment:-**

It is a final stage of the project we can send the soft copy the client to the check the requirements are done or not

**Maintenance:**

To updating the requirements for the client to project team will be done .

To develop the software development in many techniques:

1. Water fall method
2. Protype method
3. Spiral method
4. Increment method

**Waterfall method :-**

It is know as linear sequence method also.

In the method we are used phases and present.

The mani important thing is first output givens to the second input.

After complete the first phase when it will be come to the second phase only.

It has 7 phase :

* 1. Requirements Gathering
  2. Analysis and planning
  3. Design
  4. Coding
  5. Testing
  6. Deployment
  7. Maintenance

Advantages:

* It complete one by one .
* It has clarity and perfect .
* It has security.
* It has high execution

**Disadvantages:**

1.It contains only small programs.

2.It has no returns in the method