**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
2. 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
3. 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
4. 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
5. 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
6. In which phase of the software development lifecycle is manual testing typically conducted?
   1. Requirement Analysis
   2. Design
   3. Implementation
   4. Testing
7. 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
8. 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
9. 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
10. 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
11. 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
12. 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
13. 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
14. 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
15. 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
16. 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

c)It focuses solely on testing user interfaces

* 1. 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
2. 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
3. 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
4. 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
5. 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 ha ven't introduced defects in existing functionality
   4. To test the software in various operating environments
6. 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
7. 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
8. 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
9. 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
10. 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
11. What is the purpose of test case prioritization?
    1. To ensure that all test cases are executed in a specific order
    2. To identify 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 automatically
12. 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
13. 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
14. What is the primary goal of acceptance testing?

To ensure that the software is user-friendly and intuitive

* 1. To identify defects in the software
  2. To test the software's performance under varying load conditions

1. Define Software Development Life Cycle (SDLC) and briefly explain its primary phases.
2. What are the main objectives of the **Requirements Gathering phase in SDLC**?
3. Explain the significance of the Design phase in the SDLC process.
4. Discuss the importance of thorough Testing during the SDLC.
5. Differentiate between Waterfall and Agile methodologies in SDLC. Highlight the advantages and disadvantages of each.
6. What is the purpose of the Implementation phase in SDLC? How does it differ from the Deployment phase?
7. Describe the role of stakeholders in the SDLC process. How do their involvement and feedback influence project outcomes?
8. Explain the concept of Iterative Development in the context of SDLC. How does it contribute to project success?
9. Discuss the importance of Documentation throughout the SDLC. What types of documents are typically produced at each phase?
10. How does the Maintenance phase contribute to the overall success and sustainability of a software product? Discuss the activities involved in this phase.
11. Outline the key challenges faced during each phase of the SDLC and propose strategies to mitigate them.
12. Describe the role of Quality Assurance (QA) and Quality Control (QC) in ensuring the reliability and quality of software products during SDLC.
13. Explain the concept of Risk Management in SDLC. How can risks be identified, assessed, and mitigated throughout the software development process?
14. Discuss the importance of Change Management in SDLC. How should changes be managed to minimize disruptions and ensure project success?
15. 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?

**31A. Software Development Life Cycle (SDLC):** software development life cycle is use mainly to define the defect, networking, errors in software testing. There are server types like.

**1.Analysis:** it is use analysis the customer requirement based on the project.it will provide the quality of code meet the customer expectations.

**2.System designing**: first design the blue print and show the customer then after start the process. Like buttons, login etc.

**3.development:** developer do the code develop improve and updating.

**4.testing :** tester do the testing find the bugs and defect ,errors.

Improve quality of code and product to client.

**4.deployment :** to deploy the product to customer how they expected and perfect manner by using water fall model**.**

**5.maintains** : the product already build maintain do any new updated software.

It does small woke like login page, buttons etc.

32A. **Requirements Gathering phase in SDLC: it have different types phase like**

**Analysis, System design, development ,testing, deployment, maintains.**

**Water fall model:** it is old model,

* It is take more time for testing.
* It will work saperetly like first do develop product then testing team will do testing.
* It will provide the quality of code .
* The customer need any change we can not do .

**Agile**: it will updated continuously updating and improve of application.

Customer update any time .

Customer see the project at any time .

It will executed automatically .

**White box testing:** it will inline test cases are performed.

It need test cases.

It have two types like unit testing, integration testing.

**Block box testing** : it does not need the test cases it will excited automatically.

It do hide the test cases.

There two types like System testing , UAT testing.

**33A.** **Design phase in the SDLC process**: in software tester do testing on product build it will find the errors, defect ,gaps to find by using different types methods like

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**Level of testing**

**Unit testing:** it will divided into unit part to test individually modules .

This is benefit for module easy to identify the errors.

**Integration test**ing: it combine the all unit module to test group wise.

System testing: it will test System testing like version , installation ….

**Smoke testing:**

**It is process of to check the condition it is stable or not.**

**Sanity Testing:**

**Sanity testing to verify the specific functionality work correctly to fix bugs.**

**UAT testing**: it will use like customer requirement customer need some specification.

**34A.Importance of testing:** testing is part of software development **.**testing help to find defect, errors, updating. Testing provide the good quality of product.

**Types of testing:**

**1.water fall testing:** it is step by step process.

* It slow testing.
* It will provide good quality of code.
* It is flexible, strong structure.
* It has take time more.

**2.agile:**

* It is continuously executed updating and improving.
* It has automatic executed,
* It take low time.
* Team numbers are working combine**.**

**Smoke testing:**

**It is process of to check the condition it is stable or not.**

**Sanity Testing:**

**Sanity testing to verify the specific functionality work correctly to fix bugs.**

**V-Shape model:** verification and validation.

35A. **Waterfall and Agile methodologies**

**Waterfall:**

* it is step by step process.
* It slow testing.
* It will provide good quality of code.
* It is flexible, strong structure.
* It has take time more.

**Advantages**: it will provide good quality.

* Team numbers are to separately.
* It will prove fixed, structured**.**
* **It is step by step process.**

**Disadvantages:**

**It will slow tested.**

**It can not change once work is started.**

**Agile:**

* It is continuously executed updating and improving.
* It has automatic executed,
* It take low time.
* Team numbers are working combine.

**advantages : customer need any requirement change at any time.**

**It take less time.**

**Disadvantages:**

* It need experienced testers.
* It will provide the good project .
* It will time consume for customers**.**

**36A.** **Implementation phase in SDLC:**

**1.Analysis:** it is use analysis the customer requirement based on the project.it will provide the quality of code meet the customer expectations.

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**Deployment:**

1. **Required implement:**

* Write code for the application.
* first completed the development of application and after done the testing
* it will develop the application like facebook, instagram…
* based on the customer requirement.
* When deploy the application by water fall modal.