1. **Explore different Testing Types.**

**Manual testing**

Manual testing, as the term suggests, refers to a test process in which a QA manually tests the software application in order to identify bugs. To do so, QAs follow a written test plan that describes a set of unique test scenarios

**Automation testing**

Test automation is the practice of automatically reviewing and validating a software product, such as a web application, to make sure it meets predefined quality standards for code style, functionality (business logic), and user experience.

[**Black Box Testing**](https://www.geeksforgeeks.org/software-engineering-black-box-testing/)

Black box testing is a type of software testing in which the functionality of the software is not known. The testing is done without the internal knowledge of the products. It is also called Functional testing.

[**White Box Testing**](https://www.geeksforgeeks.org/software-engineering-white-box-testing/)

White-box testing or glass-box testing is a software testing technique that tests the software by using the knowledge of internal data structures, physical logic flow, and architecture at the level of source code.

[**Gray Box Testing**](https://www.geeksforgeeks.org/gray-box-testing-software-testing/)

Gray Box Testing is a combination of the Black Box Testing technique and the White Box Testing technique in software testing. The gray-box testing involves inputs and outputs of a program for the testing purpose but test design is tested by using the information about the code.

**Unit Testing**

Type of testing performed by developers to test individual unit/components of a software.

**Integration Testing**

Type of testing to test integration between different modules of an application.

**System Testing**

Type of testing to test the entire system as per the requirements.

**Performance Testing**

Type of testing performed to test response time, stability and stress.

**Load Testing**

Testing the application under a range of load to determine the threshold point where the system response time deviates or fails from the normal behavior.

**Stress Testing**

Testing the application with abnormal situation.

**Compatibility Testing**

Testing the behavior of an application on different hardware/OS/Software

**Scalability Testing**

Type of Performance testing, where we test the flexibility of the application to scale up in proportion to the increasing demand of the user work load.

**Stability Testing**

Type of Non Functional testing performed to measure quality and efficiency of a software application.

**Usability Testing**

Is also known as User Experience(UX) Testing and it is a method of measuring how easy is theapplication to use

**Regression Testing**

Testing performed when there is a code change in the application.

**Smoke Testing**

High level testing performed after the build and before the release.

**Sanity Testing**

Testing performed to test if build is working fine after the code change.

**2.Write all the possible test scenarios for User Story.(** **User should be able to login to G-mail.)**

1. Enter a username and password.  The username is most often the user’s email address.
2. Click submit, the username/email is searched.  If found,
3. an encrypted version of the password is then compared with the stored encrypted version.
4. The profile is updated with the latest login date time.,
5. Finally the user is shown a screen that they are entitled to see based on the outcome of the previous steps
6. Forgotten password
7. Change my password.
8. Log in, then log in fails with an error message that specifies that the username or password was wrong.