

FULL STACK QUALITY ENGINEERING

* Levels of Testing

① Smoke Testing: It confirms the basic functionality works for a product.

→ Before starting the testing, we need to perform smoke testing. Also known as Build Verification Testing. Can be performed by developers or testers.

②. Sanity Testing: It is detailed testing of each functionality to ensure that product / s/w runs without any logical error. It is performed at the end to check that the build is as expected, & all the flaws are working correctly after bug fix or code changes. Also known as variant of regression testing. Only performed by testers.

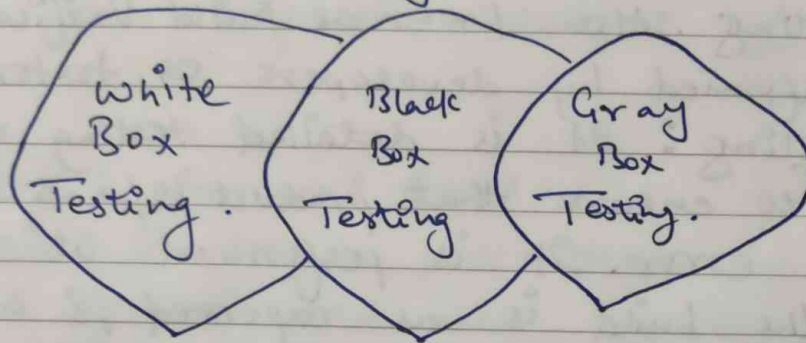
* Different Environment in Project

1. Development Environment → where dev. develop it.
2. QA / Testing Environment → where tester starts testing
3. UAT Environment → ask the client to check round of ^{phase} testing.
4. Production Environment. → where user can watch and use the project / functionality.
↳ User Acceptance Testing.

③. Installation Testing: It is performed to check the s/w has been correctly installed with all the features & that the product is working as per expectations. Only performed for Desktop based application.

④. Uninstallation Testing : It is performed to check whether the user can be able to uninstall the application without any error.

* Testing Methodology



→ White Box Testing : Performing testing on application with structure knowledge or coding knowledge.

eg. Development team.

Unit testing, Debugging.

→ Black Box Testing : Performing testing on app. with functional knowledge.

eg. Testing team.

Smoke testing, Sanity testing.

White Box

1. Method used to test a s/w taking into consideration its internal functioning.
2. Time consuming.
3. Logic testing of s/w.
4. Program knowledge needed.

Black Box

1. Method used to test that only considers the external behavior of the s/w.
2. Least time consumption.
3. Behavior testing of s/w.
4. No programming knowledge.

→ Gray Box Testing: Combination of White & Black Box Testing. Performed by person who knew both coding & testing.

eg. Usually in startups where testing is performed by the coders only.

⑤. System Testing: End to End testing. Performed after sanity testing. Testing of complete or fully integrated s/w.

⑥. Usability Testing: focuses on the ease of use of application. To verify the user friendliness of the application.

eg. In comparison with Hike & Whatsapp, Hike lacks whereas Whatsapp passed the user friendliness.

It is a kind of Beta testing mainly UI/UX features.

⑦. Regression Testing: Type of s/w testing that confirms the recent program or code changes have not destroyed the already existing functionality of a system.

⑧. Random Testing or Monkey Testing: Testing on app. randomly (without any sequence). Performed when we don't have sufficient time to complete the testing in a project.

⑨. Performance Testing: The response time of the application as per the action we made it. S/w testing process used for testing the Speed, response, time, stability, reliability and resource usage of a s/w application.