

- :: Software Test Methodologies :: -

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- :: Assignment - 1 :: -

1. Differentiate between black box and white box testing.

Black Box Testing

- It is a way of software testing in which the internal structure or the program or the code is hidden and nothing is known about it.
- Implementation of code is not needed for black box testing.
- It is mostly done by software testers.
- No knowledge of implementation is needed.
- It can be referred to as outer or external software testing.
- It is a functional test of the software.
- This testing can be initiated based on the requirement specifications documents.
- No knowledge of programming is required.
- It is the behavior testing of the software.
- It is applicable to the higher levels of testing of software.
- It is also called closed testing.

White Box Testing

- It is a way of testing the software in which the tester has knowledge about the internal structure or the code or the program of the software.
- Code implementation is necessary for white box testing.
- It is mostly done by software developers.
- Knowledge of implementation is required.
- It is the inner or the internal software testing.
- It is a structural test of the software.
- This type of testing of software is started after a detail design document.
- It is mandatory to have knowledge of programming.
- It is the logic testing of the software.
- It is generally applicable to the lower level of software testing.
- It is also called a clear box testing.

• It is least time consuming

• It is not suitable or preferred for algorithm testing

Ex₁

Search something on

google by using keywords.

→ Block-box testing techniques

- Decision table testing
- All-pairs testing
- Equivalence partitioning
- Error guessing

• It is suitable for algorithm testing

• It is most time consuming

Ex₂

White box test design techniques

- Control flow testing
- Data flow testing
- Branch testing

2. Write about alpha and beta testing?

Any1-

Alpha Testing:-

• It is one type of user acceptance testing. Its aim is to identify all the possible issues and errors that a product is delivered to the end-user or to the public. This testing got its name alpha because it is performed at an early stage, close to the end of the software development life cycle but before beta testing.

• This kind of testing is performed by internal employees of the company that includes testers and Quality Analysts (QA) people. It is end to end testing done in a testing environment that makes sure the software developed meets all the expectations & works according to the requirements discussed at the start of development.

• Alpha testing is carried out in two phases.

The first phase is performed by software developers of the organization using some debugging software or tools. While the second phase is carried out by the testers or quality analysts, this phase covers black and white box testing also. Below is the process followed in alpha testing:

- Functional requirement and design specifications are reviewed.
- Developing test cases and test plans.
- Implementing those test plans.
- Defects raised from those test plans are then logged and informed to the developers.
- Developers resolve the defects raised and perform the testing once again.

• Beta Testing:-

• Beta Testing is also a type of acceptance testing that is done by a particular group of real users of the application. As it is the final stage of testing, it is done in production or a real environment. To achieve this type of testing the software is released to a few external members or customers who are not from the organization. They provide their feedback on the product's design, functionality, and overall quality.

• This testing is highly beneficial. We are getting direct reviews from the person who is actually going to use the product after its final release and it decreases the failure risk of software.

There are various types of Beta testing like traditional beta testing, public beta testing, technical beta testing, and focused and post-release beta testing.