**GREY BOX TESTING AND IT’S TECHNIQUES**

**Grey Box Testing**

Grey Box Testing or Gray box testing is a software testing technique to test a software product or application with partial knowledge of internal structure of the application. The purpose of grey box testing is to search and identify the defects due to improper code structure or improper use of applications.

**Example of Gray Box Testing:** While testing websites feature like links or orphan links, if tester encounters any problem with these links, then he can make the changes straightaway in HTML code and can check in real time.

**TECHNIQUES:**

* **Matrix Testing:**This testing technique involves defining all the variables that exist in their programs.
* The matrix testing technique tests the risks defined by the developers.
* Matrix technique states all the used variables in a program. This technique helps to identify and remove the variables which are not being used in the program and in turn, helps to increase the speed of the software.
* **Regression Testing**: To check whether the change in the previous version has regressed other aspects of the program in the new version. It will be done by testing strategies like retest all, retest risky use cases, retest within a firewall.
* **Orthogonal Array Testing or OAT**: It provides maximum code coverage with minimum test cases.
* **Pattern Testing:** This testing is performed on the historical data of the previous system defects. Unlike black box testing, grey box testing digs within the code and determines why the failure happened