**SOFTWARE TESTING**

In general, testing is finding out how well something works. Software testing is the process of assessing the functionality of a software program. The process checks for errors and gaps and whether the outcome of the application matches desired expectations before the software is installed and goes live.

**Bug:**  A malfunction in the software/system is an error that may cause components or the system to fail to perform its required functions. In other words, if an error is encountered during the test it can cause malfunction. For example, incorrect data description, statements, input data, design, etc.

**Defect:** A defect refers to the situation when the application is not working as per the requirement and the actual and expected result of the application or software are not in sync with each other.

**Fault:** Sometimes due to certain factors such as Lack of resources or not following proper steps Fault occurs in software which means that the logic was not incorporated to handle the errors in the application. This is an undesirable situation, but it mainly happens due to invalid documented steps or a lack of data definitions.

**Failure:** Failure is the accumulation of several defects that ultimately lead to Software failure and results in the loss of information in critical modules thereby making the system unresponsive. Generally, such situations happen very rarely because before releasing a product all possible scenarios and test cases for the code are simulated.  Failure is detected by end-users once they face a particular issue in the software.

**Error:**

Error is a situation that happens when the Development team or the developer fails to understand a requirement definition and hence that misunderstanding gets translated to buggy code. This situation is referred to as an Error and is mainly a term coined by the developers.