

Testing and bug

Testing: In general, testing is **finding out how well something works**. In terms of human beings, testing tells what level of knowledge or skill has been acquired. In computer hardware and software development, testing is used at key checkpoints in the overall process to determine whether objectives are being met.

Bug: A bug is an unexpected problem with software or hardware. Typical problems are often the result of external interference with the program's performance that was not anticipated by the developer.

Difference between Defect, Error, Bug, Failure and Fault!

- Testing is the process of identifying defects, where a defect is any variance between actual and expected results. “A mistake in coding is called Error, error found by tester is called Defect, defect accepted by development team then it is called Bug, build does not meet the requirements then it is Failure.”

- **DEFECT:**

- It can be simply defined as a variance between expected and actual. The defect is an error found AFTER the application goes into production. It commonly refers to several troubles with the software products, with their external behavior or with its internal features.

- **Defect can be categorized into the following:**

- Wrong:

When requirements are implemented not in the right way. This defect is a variance from the given specification. It is Wrong!

- **Missing:**

- A requirement of the customer that was not fulfilled. This is a variance from the specifications, an indication that a specification was not implemented, or a requirement of the customer was not noted correctly.

- **ERROR:**

- An error is a mistake, misconception, or misunderstanding on the part of a software developer. In the category of the developer, we include software engineers, programmers, analysts, and testers.

- **BUG:**

- A bug is the result of a coding error. An Error found in the development environment before the product is shipped to the customer. A programming error that causes a program to work poorly, produce incorrect results or crash.

- **FAILURE:**

- When a defect reaches the end customer it is called a Failure. During development, Failures are usually observed by testers.

- **FAULT:**

- A fault is introduced into the software as the result of an error. It is an anomaly in the software that may cause it to behave incorrectly, and not according to its specification. It is the result of the error.

