

# What is Error, Fault, Bug, Failure, Defect?

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*(SPM)*  
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*Published On: April 12, 2022*

FALL SEMESTER, YEAR (VIth, 3rd)  
**FALL SESSION (2021-22)**

# DEFECT

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# What is DEFECT?

## 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.
- In other words, a Defect is a difference between expected and actual results in the context of testing.
- It is the deviation of the customer requirement.

## What is DEFECT?

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!

## What is DEFECT?

Defect can be categorized into the following

### 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.

# What is DEFECT?

## Defect can be categorized into the following

### Extra:

- A requirement incorporated into the product that was not given by the end customer.
- This is always a variance from the specification, but maybe an attribute desired by the user of the product.
- However, it is considered a defect because it's a variance from the existing requirements.

# ERROR

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# What is ERROR?

## 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.
- For example, a developer may misunderstand a design notation, or a programmer might type a variable name incorrectly – leads to an Error.
- It is the one that is generated because of the wrong logic, loop or syntax.
- The error normally arises in software; it leads to a change in the functionality of the program.



BUG

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# What is BUG?

## 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.
- An error in software or hardware that causes a program to malfunction.
- A bug is the terminology of Tester.

# FAILURE

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# What is FAILURE?

## FAILURE:

- A failure is the inability of a software system or component to perform its required functions within specified performance requirements.
- When a defect reaches the end customer it is called a Failure.
- During development, Failures are usually observed by testers.

# What is FAILURE?

## FAILURE:

- For example, in a bank application
- if the Amount Transfer module is not working for end-users when the end-user tries to transfer money, submit button is not working. Hence, this is a failure.

# FAULT

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# What is FAULT?

## FAULT:

- An incorrect step, process or data definition in a computer program that causes the program to perform in an unintended or unanticipated manner.
- 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.

# Difference between Defect, \_Error, Bug, Failure and Fault



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

## 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.”

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

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

- Error- mistake in coding
- Defect- error raised by tester/ testing team
- Bug- defect accepted by developer/ development team
- Fault- functionality of software which might be introduced in next version/  
software partially meets to requirement
- Failure- software does not meet requirements.