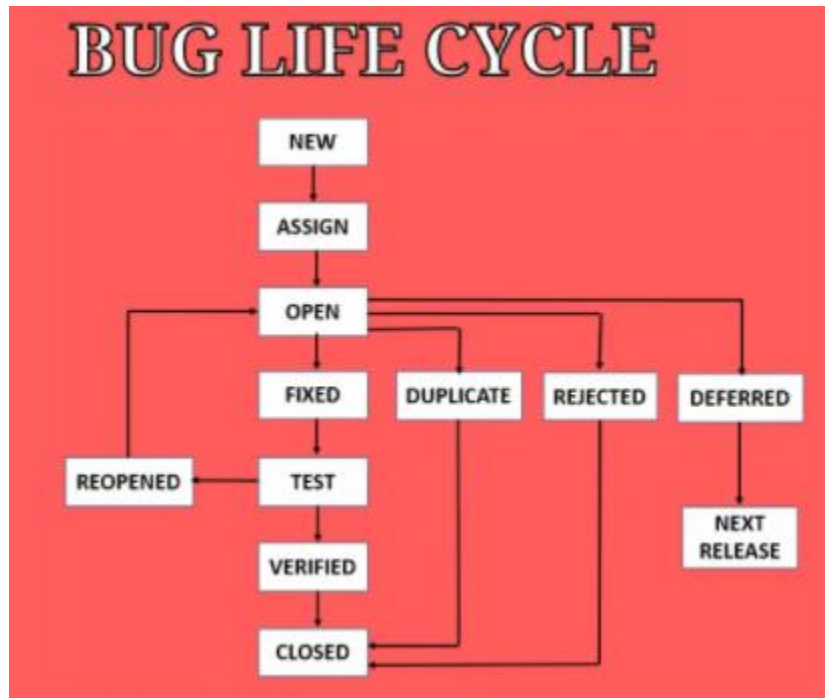# Definition Bug Life Cycle

The bug life cycle is also known as the **Defect life cycle**. In the Software Development Process, the bug has a life cycle. The bug should go through the life cycle to be closed. The bug life cycle varies depends upon the tools (QC, JIRA, etc.,) used, and the process followed in the organization.

What is a Software Bug?

A software bug can be defined as the abnormal behavior of the software. The bug starts when the defect is found and ends when a defect is closed, after ensuring it is not reproduced.

Defect Life Cycle States

The different states of a bug in the software bug life cycle (sblc) are as follows:

#1. New

When a tester finds a new defect. He should provide a proper Defect document to the Development team to reproduce and fix the defect. In this state, the status of the defect posted by the tester is "New"

#2. Assigned

Defects that are in the status of New will be approved (if valid) and assigned to the development team by Test Lead/Project Lead/Project Manager. Once the defect is assigned then the status of the bug changes to "Assigned"

#3. Open

The development team starts analyzing and works on the defect fix

#4. Fixed

When a developer makes the necessary code change and verifies the change, then the status of the bug will be changed as "Fixed" and the bug is passed to the testing team.

#5. Test

If the status is "Test", it means the defect is fixed and ready to do test whether it is fixed or not.

#6. Verified

The tester re-tests the bug after it got fixed by the developer. If there is no bug detected in the software, then the bug is fixed and the status assigned is "verified."

#7. Closed

After verified the fix, if the bug is no longer exits then the status of the bug will be assigned as "Closed."

#8. Reopen

If the defect remains the same after the retest, then the tester posts the defect using the defect retesting document and changes the status to "Reopen". Again the bug goes through the life cycle to be fixed.

#9. Duplicate

If the defect is repeated twice or the defect corresponds to the same concept of the bug, the status is changed to "duplicate" by the development team.

#10. Deferred

In some cases, the Project Manager/Lead may set the bug status as deferred.

- If the bug found during the end of the release and the bug is minor or not important to fix immediately.
- If the bug is not related to the current build.
- If it is expected to get fixed in the next release.
- The customer is thinking to change the requirement.
- In such cases the status will be changed as "deferred" and it will be fixed in the next release.

#11. Rejected

If the system is working according to specifications and the bug is just due to some misinterpretation (such as referring to old requirements or extra features) then the Team lead or developers can mark such bugs as "Rejected"

Some other statuses are:

#12. Cannot be fixed

Technology not supporting, Root of the product issue, Cost of fixing a bug is more

#13. Not Reproducible

Platform mismatch, improper defect document, data mismatch, build mismatch, inconsistent defects

#14. Need more information

If a developer is unable to reproduce the bug as per the steps provided by a tester, then the developer can change the status as "Need more information'. In this case, the tester needs to add detailed reproducing steps and assign bugs back to the development team for a fix. This won't happen if the tester writes a good defect document.

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