**Defect Life Cycle (or) Bug Life Cycle:**

When we are executing test cases if the expected result and actual results is not matching then we will consider it is a "defect" and that will be in "new/open" defect status. Then that defect will be raised to respective or concerned developer or development lead (when we don't know the respective developer) then the status will be "Assigned".

Then developer will "Reproduce" the defect & if it is reproducible, it will be accepted. Then he starts fixing the defect in the development server. And it has to be installed to testing server. Then he should be changing the status to "fixed".

The test engineer starts retesting the defect in the "testing server" if the defect is properly fixed then the status will be closed. If the defect is not properly fixed then again, the defect is "RE-OPEN" to the developer. This process is continuous still defect goes to closed status.

**What is duplicate status?**

Whenever the test engineer finds the defects and he raised it, if another test engineer (or) same test engineer finds the same defect and raised it unknowingly (or) mistakenly then the status of the second effect will be changed as "duplicate" by developers.

**To avoid this duplicate status:**

* Check whether the same defect is already raised or not in the "Repository" (ex: Bugzilla, QC/ ALM, JIRA etc..) before raising any defect.
* Communicate with team members before raising a defect, if you are raising for common model defect.

**What is deferred (or) postpone status:**

Whenever developer accept the defect but he is not fixing it immediately, he is fixing it later. Then he will make that defect status as "deferred (or) postpone".

This will be done when developer has too my defects to fix and time is very less. Then he can "differ only minor or trivial defects".

**What is cannot reproduce status:**

Whatever test engineer is able to see the defect but developer is unable to reproduce the defect. In this case developer will change the status to "cannot reproduced".

**What are the reasons for cannot reproduce?**

* Installation problem (between development server and testing server).
* Due to improper defect report (test engineer is found the defect in Chrome, but developer is checking in Firefox).
* Due to inconsistent bug (or) defect (a defect which occurs sometimes and doesn't appear sometime).

**What is invalid status / Reject / Not a defect status:**

Whenever test engineer raises the defect but developer will not accept the defect as "valid" and he changes the status to "Invalid (or) Reject".

**Reasons for invalid:**

Due to misunderstanding of the requirement.

1. If test engineer misunderstands the requirement.

new/open ----->Assign -----> Invalid -----> Close.

1. If developer misunderstands the requirement

new/open ----->Assign -----> Invalid ----->Assign -----> Fixed -----> Close.

**Note:**

It is BAD for Test Engineer.

**What is cannot fix / can't fix / won't fix:**

When developer accepts the defect but not fix the defect then he changes the status to "can't fix".

(or)

Whenever developer is unable to fix the defect that is raised by the test engineer then he changes the status as "can’t be fixed". And it is a valid defect but he can't fix the defect.

**What is RFE (Request for Enhancement):**

Whenever test engineer raises the defect to the developer which is not given in the requirement so the developer will take it as suggestion. In this case he will change the status as RFE (Request for Enhancement).

They can speak with customer if customer wants that feature, it is taken as a new requirement.

new/open ----->Assign -----> RFE -----> Closed (add a comment before closing).

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**Severity and Priority:**

**Severity:**

Severity will tell how much that **defect is affecting or impacting** the customer business. **Severity is used in defect report while raising defect.**

**Types of Severity:**

1. Blocker or showstopper
2. Critical
3. Major
4. Minor
5. Trivial (this defect is negligible)

**Priority:**

Priority says which defect has to be fixed first by the developer. For every defect we have to set priority.

**Different types of priority:**

* Urgent
* High
* Medium low

(or)

* High
* Medium
* Low

(or)

* P1
* P2
* P3

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**Defect Report:**

Before preparing defect report we have to do testing and find the defects. for every defect we have to prepare defect report and explain about it to developer.

**Mini project (manual testing):**

**Application name:** Zomato

**Types of testing performed:** Functional testing in Black Box Testing (BBT)

**Testing environment:** Chrome 99 version

**Modulus tested:**

**Example for defect report:**

**Defect ID:** 001

**Build number:** B01

**Test case number:** TC\_IT\_05

**Status:** assigned

**Severity:** major

**Priority:** high

**Test environment:** Chrome browser

**Module name:** order online (super lean meals)

**Reported by:** Srikanth (Test engineer)

**Assigned to / assignee:** Kalyan (developer)

**Brief description:** veg shake is displayed in red color instead of green color.

Color (Beet root Juice)

**Test data:** NA

**Steps to reproduce (or) description:**

1. Open the browser (Chrome)
2. Enter the URL([www.zomato.com](http://www.zomato.com))
3. Click on "search for restaurant" field in home page
4. Type "super lean meals" in the search bar
5. Select "super lean meals"
6. Select "order online" option
7. Click on "shakes" option
8. Scroll down till we get beetroot juice

**Expected result:** "Beetroot juice" should be displayed in green color

**Actual result:** " beetroot juice" is displayed in red color

**Attachment (screenshot):** snipping tool

**Note:**

A defect report has to be easily understandable to developers. We can prepare defect report using Word document or Excel document or using tools like Bugzilla, Jira, QC/ALM (Quality Center / Application Life Cycle Management) etc...

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