**Test Case Execution:**

Execution and execution results plays a vital role in the testing. Each and every activity should have proof.

The following activities should be taken care:

1. Number of test cases executed.

2. Number of defects found

3. Screen shots of successful and failure executions should be taken in word document.

4. Time taken to execute.

5. Time wasted due to the unavailability of the system.

**Test Case Execution Process:**

**Check the availability of application**

**Raise Defect Any Mismatch Found**

**Operate S\w by executing each test case**

**Take the Test Case document**

Inputs

-Test Cases

-System Availability

-Data Availability

Process

-Test it.

Output

-Raise the Defects

-Take screen shoot & save it

**Defect Handling:**

**What is Defect?**

In computer technology, a Defect is a coding error in a computer program. It is defined by saying that “A software error is present when the program does not do what its end user reasonably expects it to do.

Defect is a mismatch between expected and actual behavior.

**Who can report a Defect?**

Anyone who has involved in software development life cycle and who is using the software can report a Defect. In most of the cases defects are reported by Testing Team.

A short list of people expected to report bugs:

Testers / QA Engineers

Developers

Technical Support

End Users

Sales and Marketing Engineers

**Defect Life Cycle:**

Defect Life Cycle helps in handling defects efficiently. This DLC will help the users to know the status of the defect.

**Close**

##### Defect Accepted

##### Defect Raised

##### Defect Fixed

##### Internal Defect Review

##### Assigned to Dev Team

# Valid

##### Defect Rejected

##### Defect Rejected

# Valid

No

No

**Defect status:🡪**

**New:🡪**

When defect was posted first time Testing team give status as NEW.

**Open:🡪**

**After defect meeting test lead give status as open based on defect priority.**

**Differed:🡪**

**If defect is was not prior to fix in current release. Then defect will be postponed to next releases**

**Fixed:🡪**

**After bug fixing successful developer change defect status to fixed**

**Rejected:🡪**

**In case of duplicate or silly defects developer change defect status to Rejected**

**Reopen:🡪**

**Test Engineer Reopen defect in case defect was not fixed.**

**Closed:🡪**

**After successful bug fixing testing team change status to closed**

**=======================================================**

**Types of Defects**

Cosmetic flow

Data corruption

Data loss

Documentation Issue

Incorrect Operation

Installation Problem

Missing Feature

Slow Performance

System Crash

Unexpected Behavior

Unfriendly behaviour

Technical defects

**How do u decide the Severity of the defect**

|  |  |  |
| --- | --- | --- |
| Severity Level | Description | Response Time or Turn-around Time |
| High | A defect occurred due to the inability of a key function to perform. This problem causes the system hang it halts (crash), or the user is dropped out of the system. An immediate fix or work around is needed from development so that testing can continue. | Defect should be responded to within 24 hours and the situation should be resolved test exit |
| Medium | A defect occurred which severely restricts the system such as the inability to use a major function of the system. There is no acceptable work-around but the problem does not inhibit the testing of other functions | A response or action plan should be provided within 3 working days and the situation should be resolved before test exit. |
| Low | A defect is occurred which places minor restrict on a function that is not critical. There is an acceptable work-around for the defect. | A response or action plan should be provided within 5 working days and the situation should be resolved before test exit. |
| Others | An incident occurred which places no restrictions on any function of the system. No immediate impact to testing.  A Design issue or Requirements not definitively detailed in project.  The fix dates are subject to negotiation. | An action plan should be provided for next release or future enhancement |

**Defect Severity VS Defect Priority**

The General rule for the fixing the defects will depend on the Severity. All the High Severity Defects should be fixed first.

This may not be the same in all cases some times even though severity of the bug is high it may not be take as the High priority.

At the same time the low severity bug may be considered as high priority.

**Defect Tracking Sheet**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Defect No | Description | Origin | Severity | Priority | Status |
| Unique No | Dec of Bug | Birth place of the Bug | Critical  Major  Medium  Minor  Cosmetic | High  Medium  Low | Submitted  Accepted  Fixed  Rejected  Postponed  Closed  Reopen |

1. **Defect Management**
   1. **Prioritization of Defects**

During system, business, and user-acceptance testing, defects will be logged in Quality Center and assigned a status and priority. Any “show stopper” issues will be assigned a priority of P1. Issue priorities are defined as follows:

**P1– High -** affects core functionality; prevents availability or interrupts testing; no workaround available. Must be resolved ASAP.

**P2 – Medium High -** affects core functionality; interrupts testing; workaround available. Must be resolved within 2 business days.

**P3** – **Medium -** interrupts isolated test cases; UI problems; workaround available. Resolution pending schedule.

**P4 – Medium Low -** affects isolated test cases; nice-to-haves; UI enhancements; workaround available. Resolution pending schedule.

**P5 – Low –** Cosmetic defects; workaround available. Resolution pending schedule.

**P6 – Very Low –** Deferred for future releases

* 1. **Entering Defects**

Before entering a new defect, be sure to check for similar defects to avoid logging duplicates. If you find a potential defect that is within the functionality of another track/module, be sure to work with the appropriate member of your QA team. A daily defect meeting will be scheduled and is mandatory if you have any defects opened by you or assigned to you that are not of the status Closed. Appropriate developer(s) and Business team members will also attend this meeting.

When logging a new defect for this track/module, field values should be set as follows:

| Field | Required | Values |
| --- | --- | --- |
| Assigned To | Yes |  |
| Browser | Yes | Firefox  Internet Explorer  Konquerer  Mozilla  Multiple Browsers  Netscape  Safari |
| Created Date | N/A |  |
| Defect ID | N/A |  |
| Defect Status | Yes | New  Open  Fixed  Rejected  Reopen  Deferred  Duplicate  Closed  Pending |
| Description | Yes |  |
| Detected By | N/A |  |
| Detected in Version | Yes |  |
| Modified | N/A |  |
| Priority | Yes | P1 - High  P2 - Med High  P3 - Medium  P4 - Med-low  P5 - Low  P6 - Very Low |
| Project | Yes |  |
| Subject | Yes | drop down values automatically will be populated through the requirements tab  For UAT – The Use cases have been listed in Subject for each build |
| CR - Cross Reference | No |  |
| Actual Fix Time | No |  |
| Closed in version | N/A | Linked to Version defined |
| Closing Date | N/A |  |
| Comments | No |  |
| Estimated Fix Time | No |  |
| Fix Date | No |  |
| OS | Yes | Operating System – Windows 2000, Windows XP, Macintosh and Linux |
| Planned closing Version | No | Linked to Version defined in the requirement |
| Reproducible | N/A | y-n field = when NO, Status will be closed |
| Re-work Counter | No | Should be behind the scenes |
| Root Cause | No | Boundary System  Duplicate  Caused by Environment  Design Issue  Development Issue  New Requirement  Changed Requirement  Deleted Requirement  Not in Use Case  Prod/ Env. Issue  Not Reproducible  Pre Existing  User Training  Not a bug  Cosmetic/Grammatical  Database Issue  Data Issue |
| CR Type | No | In/Out Cycle |

* 1. **Defect Status Workflow**

An email will automatically be created and sent to the person in the Detected By field as well as the person in the Assigned To and Biz Owner field each time an issue is created or updated within Quality Center. As many “**Closed**” issues as possible will be included in the regression testing to occur in the production environment (pre-go-live). Daily, cross-functional defect meetings will be held to ensure proper prioritization of all defects.

The following table lists the status values available for a defect, who a defect with each status should be assigned to, which Quality Center Fields require updating when the status is updated, and any notes regarding the status.

| Status | Assign To | TD Fields to Update | Notes |
| --- | --- | --- | --- |
| New | Dev Lead | All required | IT Track leads listed above. |
| Open | Developer, IT QA Analyst, Business QA, Business Owner | Status, Assign to, R&D Comments, Estimated Fix Time | Developers should resolve P1 issues prior to P2, P3, or P4 issues. Open status is used for assigned, researching, in-progress, etc. tasks. |
| Fixed | QA team lead | Status, R&D Comments, Actual Fix Time | Coding completed and unit testing passed. |
| Closed | User who closed defect | Status, R&D Comments, Closing Date, Closed in Build, Closing Reason |  |
| Reopen | Dev Lead | Status, Assign to, R&D Comments | Include test scenario details during re-test. |
| Deferred | Business PM/ Business Owner | Status, Assign to, R&D Comments, Deferral Reason, Planned Closing Version | Business review and approval required for this status. Biz owners listed above. |

