

对美外包软件测试实践课程

Basic Test Execution and Defect Tracking

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2012/06/20

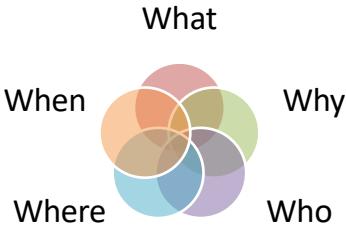
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Outline

- 1 Test Execution
 - a The Definition of Test Execution
 - b How to Do Test Execution
- 2 Defect Tracking - Bugzilla
 - a How to Report a New Bug
 - b Know Bug Life Cycle

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Test Execution



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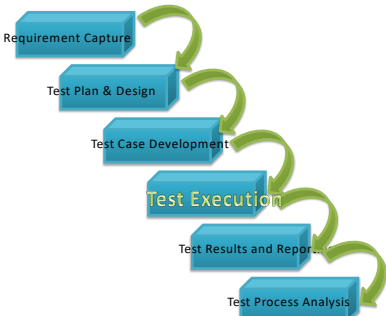
What is test execution

- “The processing of a test case suite by the software under test, producing an outcome”

~BS 7925-1.British Computer Society Specialist Interest Group in Software Testing (BCS SIGIST)


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Why needs test execution



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Who executes the tests



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Where are the tests executed

Everywhere that testing takes place is a de facto location to execute testing.

In certain cases execution itself may be complex. The SUT (software under test) has to be tested in multiple environment. For example, Java should be tested in Windows, Mac, and Linux.

Test Execution may be outsourced to a testing lab or other company.

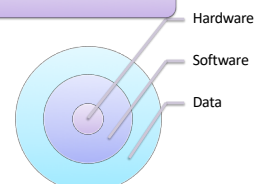
Test environment should be separated with development environment

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Test Environment

Analysis environment of production

Elements in test environment



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When will the tests are executed

Again anytime testing takes place

Entry Criteria & Exit Criteria

Suspension criteria & Resumption criteria

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Entry Criteria & Exit Criteria

- Time
- Milestones and Project deadline

Entry/Exit Criteria

- Environment
- Documentation
- Personnel
- Tool
- Data

Entry criteria

- Application
- Documentation
- Rate
-

Exit criteria

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Suspension & Resumption criteria

- hardware / software not available at the time indicated in the project schedule
- the build contains many serious defects which seriously prevent or limit testing progress
- Assigned test resources are not available when needed by the test team
-

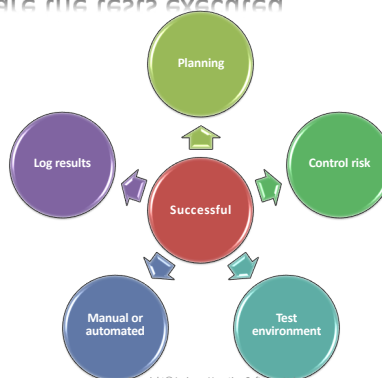
Suspension Criteria

- If testing is suspended, resumption will only occur when the problem(s) that caused the suspension have been resolved. When a critical defect is the cause of the suspension, the "FIX" must be verified by the testing team before testing is resumed
-

Resumption Criteria

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How are the tests executed



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Reporting a New Bug

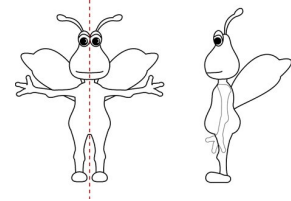
What is a defect	<ul style="list-style-type: none"> Software error Software faults Software failures
When log a defect	<ul style="list-style-type: none"> Anytime, when a defect is discovered.
Whose responsibility	<ul style="list-style-type: none"> Everyone in the project team, even user.
What should be logged	<ul style="list-style-type: none"> Defects Suspicion Issues Questions

No bug is too trivial to report!

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Defect Attributes

- Summary
- Reported By
- Reported Date
- Assigned To
- Description
- Severity
- Component
- Environment
- Release/Build
- Status
- Priority
- Type
- Detection Stage
- Fix Time
- Comment
-



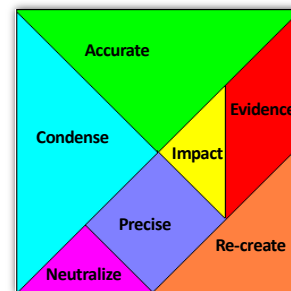
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A Sample

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How to write an effective defect

Principles



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How to write an effective defect

Summary

- Condense - Say it clearly but briefly
- Defects will often be searched by its summary
- Brief but make sense
 - Key Words
 - Explain problems or what happens
 - Neutralize

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How to write an effective defect

Descriptions

- Pre-condition
- Test Steps
- Actual Results
- Expected Results
- Additional Information

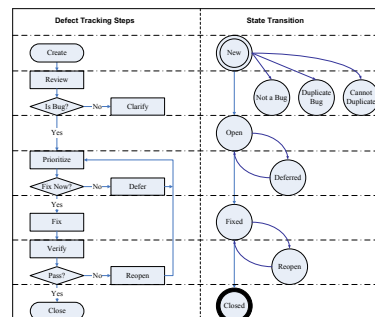
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Defect Tracking

Severity	Definition	Example	Business Critical?	Process Stop?
S1	Business critical process, application or interface experiencing a process stop defect with no prudent and/or feasible workaround	<ul style="list-style-type: none"> Cannot book an order Cannot post a General Ledger Journal Entry at Month End (GL JE at M/E) 	YES	YES
S2	Business critical process, application or interface experiencing a non-process stop defect	<ul style="list-style-type: none"> Maintain product price factors not calculating product price Cannot post a Journal through ADI (workaround is to enter manually – extremely tedious) 	YES	NO
S3	Non-business critical process, application or interface experiencing a process stop defect with no prudent and/or feasible workaround	<ul style="list-style-type: none"> Cannot copy an order Alerts not being posted to UAI 	NO	YES
S4	Non-business critical process, application or interface experiencing a non-process stop defect	<ul style="list-style-type: none"> Bill to contact not displayed on Sales Order replication through SOM Users getting kicked off system randomly while performing query transactions 	NO	NO
S5	Minor defect that does not affect normal business operation	<ul style="list-style-type: none"> Maintain price lists fields auto-populating upon opening Error messages that needlessly occur 	NO	NO
S6	Enhancement Request	<ul style="list-style-type: none"> Add a new column to a report Change the sort on a report 	N/A	N/A

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Defect Tracking Process



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Defect Tracking Matrix

Status	Action	Owner	Participant
New	A defect is reported in QC	Generally QA	Everyone in Project team
Cannot Duplicate	Review and check it cannot re-produced.	QA	QA, Developers
Duplicate Bug	Review and check it is duplicate with another defect.	QA	QA, Developers
Not a Bug	Review and clarify it is not a defect.	QA	QA, Developers, BA
Open	Review and confirm it is a defect.	QA	QA, Developers, BA
Deferred	Review and determine to defer the defect.	Generally PM	Project team
Fixed	Dev fix the defect	Developers	Developers
Reopen	Did not fix this defect	QA	QA
Closed	QA verify the defect	QA	QA

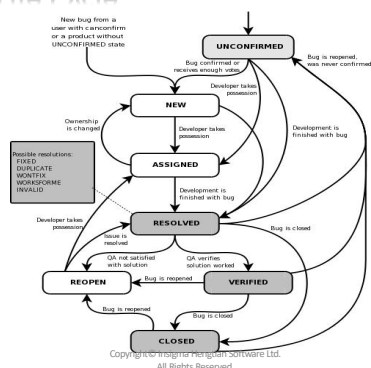
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Defect Tracking

- Home Work
 - Install Bugzilla
 - Test TMS with Bugzilla
 - **Defects description file (Deliverable)**

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Bug Life Cycle



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Bug Life Cycle

QA

Confirm Bugs Raised By DEV

- ① Search for bugs: Status = Unconfirmed;
- ② Verify whether the bug exists or not, if yes, change the status to 'New', and then commit.

Verify Bugs

- ① Search for bugs: Status = Resolved. Verify whether the bug has been fixed or not, if yes, change the status to 'Verified'; otherwise, 'Reopened';
- ② After the Release of the Product, change the status from 'Verified' to 'Closed'.

DEV

Bugs Belong To You

- ① Change the status to 'Assigned' and take possession of the bugs
- ② Change the status to 'Resolved' after finishing the bug.

Bugs NOT Belong To You

- ① Assign back to QA or Reassign to the correct DEV

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Bugzilla Demo

- <http://landfill.bugzilla.org/>
- <https://bugzilla.mozilla.org/>
- <http://www.bugzilla.org/>

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Demo

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THANKS

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