Topic #3 – Software Test Management

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Topic #3 – Software Test Management

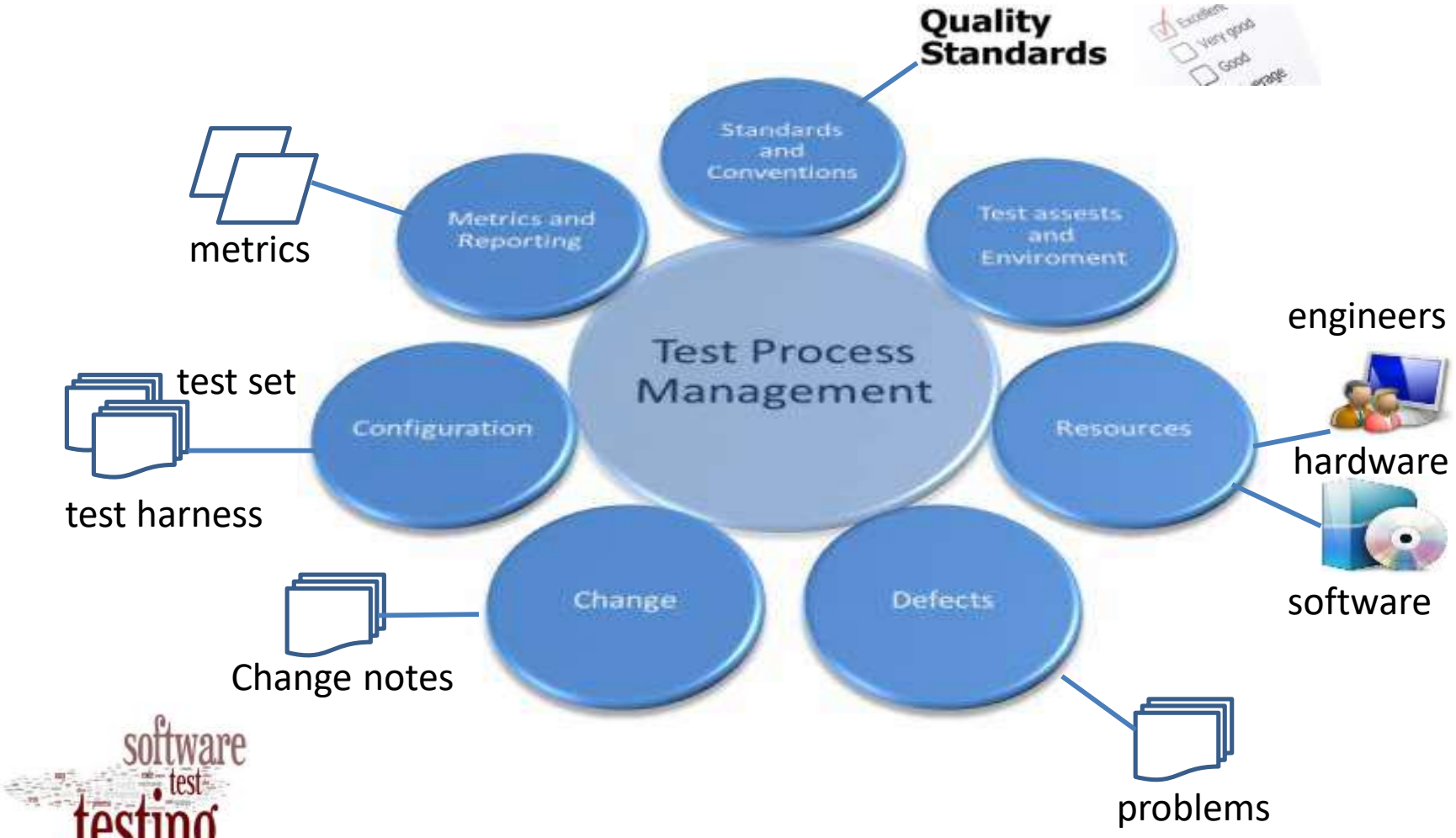
Software Test Management Process

Software Test Reporting and Analysis

Software Test Review

Software Test Management

TOPIC #3 – SOFTWARE TEST MANAGEMENT



TOPIC #3 – SOFTWARE TEST MANAGEMENT

Software Test Record Sample

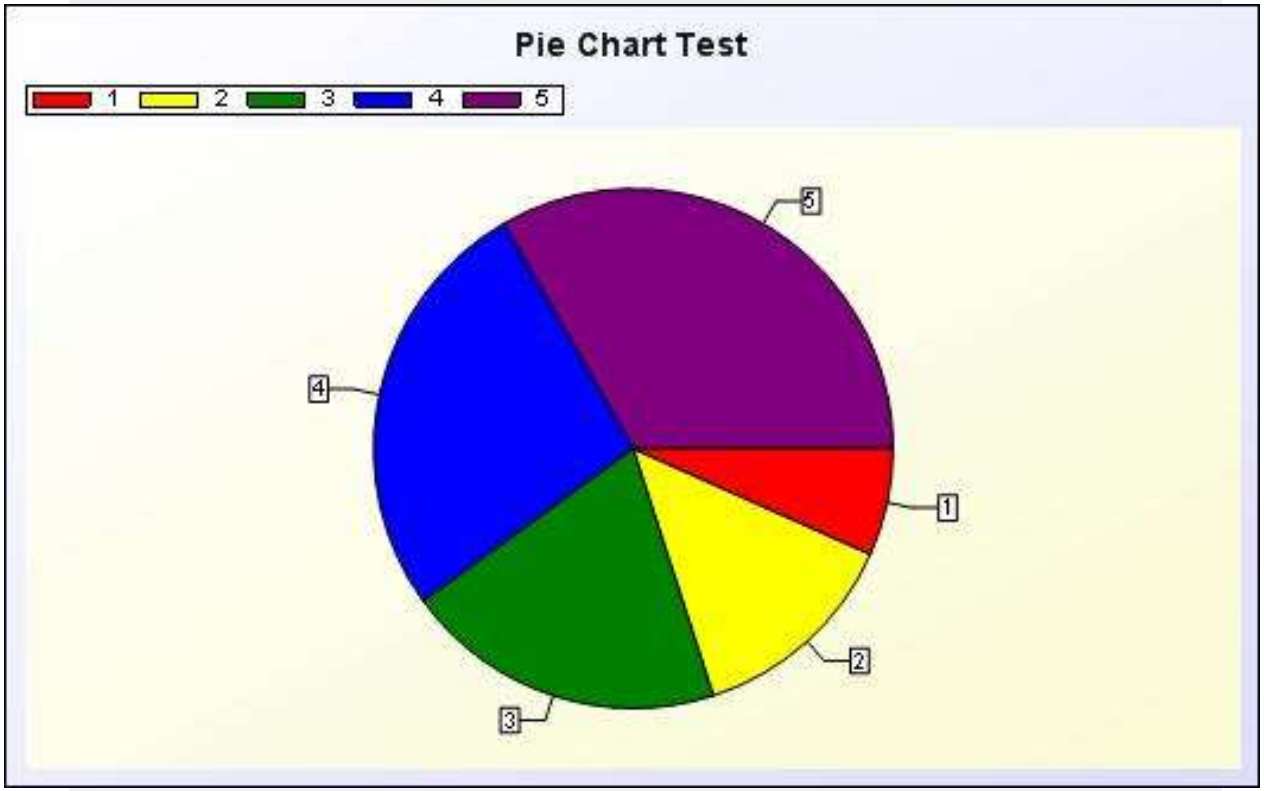
Certificates | Page 1 | Appliance Details | Additional Comments

PLIANCE DETAILS AND TEST RESULTS

Add Appliance | Edit | Delete | Find | Previous | Next | Import | Sort By | Info Bar

Appliance ID	Test Date	Site	Description	Location	Serial Number	Retest Period	Retest Date	Status
AP0001	29/07/2008	Joe Company 1	IEC Lead	Office	N/A	6	29/01/2009	Pass
AP0002	29/07/2008	Joe Company 1	240v Extension Lead	Board Room	N/A	6	29/01/2009	Fail
AP0003	29/07/2008	Joe Company 1	110v Extension Lead	Warehouse	N/A	6	29/01/2009	Fail
AP0004	29/07/2008	Joe Company 1	Monitor	Ground Floor Office	12345678	12	29/07/2009	Pass
AP0005	29/07/2008	Joe Company 1	Fax Machine	1st Floor Office	12345678	12	29/07/2009	Fail
AP0006	29/07/2008	Joe Company 3	Photo Copier	Meeting Room	N/A	12	29/07/2009	Pass
AP0007	29/07/2008	Joe Company 3	Printer	Board Room	87654321	12	29/07/2009	Pass
AP0008	29/07/2008	Joe Company 3	Scanner	Reception	N/A	12	29/07/2009	Pass
AP0009	29/07/2008	Joe Company 2	Kettle	Kitchen	N/A	48	29/07/2012	Pass
AP0010	29/07/2008	Joe Company 2	Fridge	Kitchen	N/A	12	29/07/2009	Pass
AP0011	29/07/2008	Joe Company 2	Microwave	Kitchen	12345678	12	29/07/2009	Pass
AP0012	29/07/2008	Joe Company 2	Amplifier	Bed Room	N/A	12	29/07/2009	Pass
AP0013	29/07/2008	Joe Company 2	Answerphone	Reception	N/A	12	29/07/2009	Pass
AP0014	29/07/2008	Joe Company 2	Cash register	Reception	87654321	12	29/07/2009	Pass
AP0015	29/07/2008	Joe Company 2	CD PlayerTC/VCR	Bed Room	87654321	12	29/07/2009	Pass
AP0016	29/07/2008	Joe Company 2	Chest freezer	Kitchen	N/A	12	29/07/2009	Pass
AP0017	29/07/2008	Joe Company 1	Chest fridge	Kitchen	12345678	12	29/07/2009	Pass
AP0018	29/07/2008	Joe Company 1	Coffee maker	Kitchen	N/A	12	29/07/2009	Pass
AP0019	29/07/2008	Joe Company 1	Convector heater	Office	N/A	12	29/07/2009	Pass
AP0020	29/07/2008	Joe Company 1	Dehumidifier	Office	12345678	12	29/07/2009	Pass
AP0021	29/07/2008	Joe Company 1	Desk light	Office	N/A	12	29/07/2009	Fail
AP0022	29/07/2008	Joe Company 1	Dish washer	Kitchen	N/A	12	29/07/2009	Pass
AP0023	29/07/2008	Joe Company 1	Dryer	Kitchen	N/A	12	29/07/2009	Pass
AP0024	29/07/2008	Joe Company 1	Electric blanket	Bed Room	N/A	12	29/07/2009	Pass
AP0025	29/07/2008	Joe Company 1	Electric blender	Kitchen	N/A	12	29/07/2009	Pass
AP0026	29/07/2008	Joe Company 1	Electric clock	Bed Room	N/A	12	29/07/2009	Pass

Software Test Analysis Report



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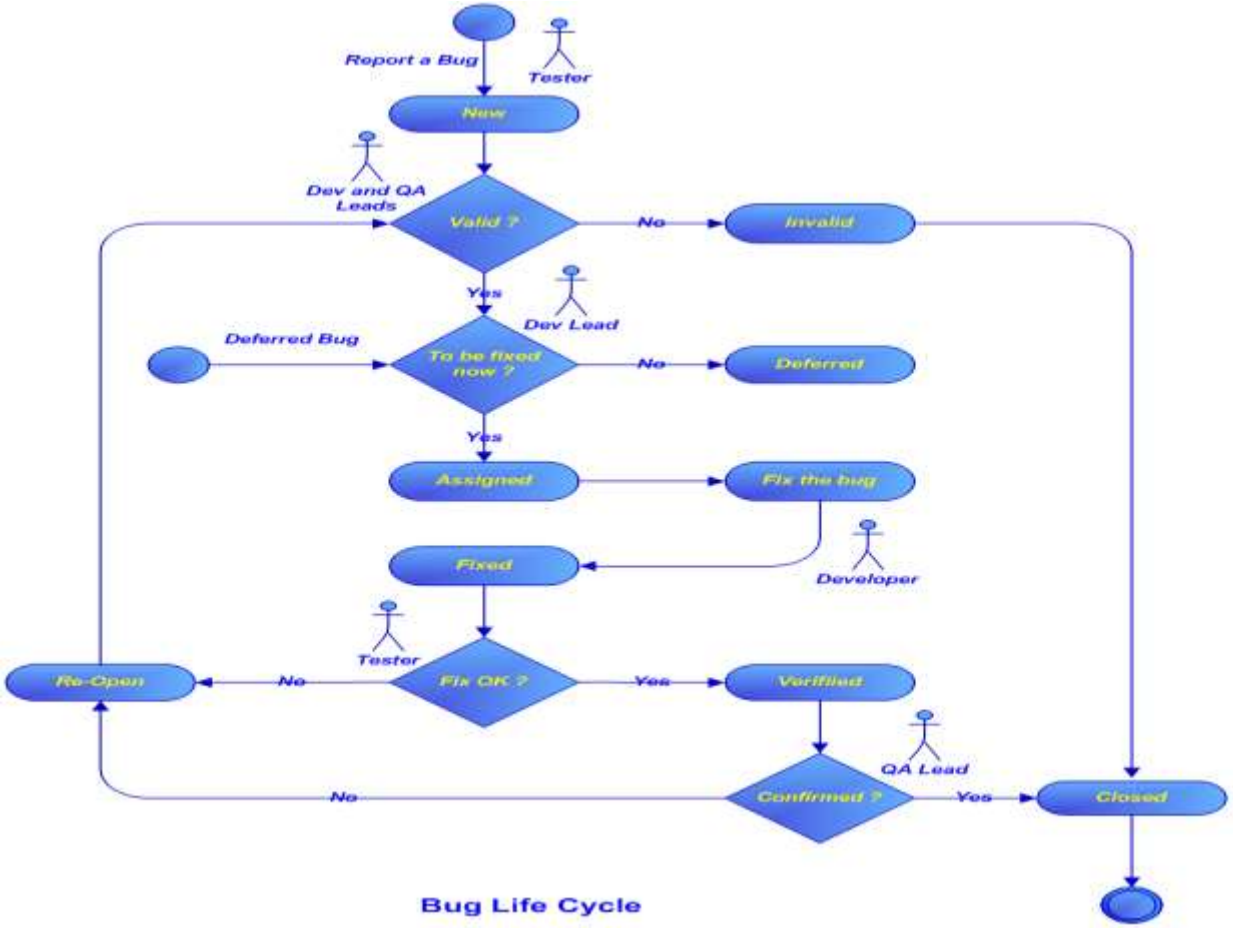
Software Bug Management Flow



Bug Life Cycle

Software Test Review

- A test review is a typical verification activity in a test process to assure the quality of generated test cases for a software product.

- Participants in a review take full responsibility for results.

There are two types of test reviews:

- **Formal reviews:**
  - **use a well-defined review method (or technique)**
  - **inspection review and walk-through**
  - **generate formal review results**

- **Informal reviews**
  - **use a desk-check approach**
  - **generate informal review results**

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Software Test Case Sample

TEST CASE REPORT

(Use one template for each test case)

GENERAL INFORMATION			
Test Stage:	☐ Unit ☐ Functionality ☐ Integration ☐ System ☐ Interface ☐ Performance ☐ Regression ☐ Acceptance ☐ Pilot Specify the testing stage for this test case.		
Test Date:	mm/dd/yy	**System Date, if applicable:**	mm/dd/yy
Tester:	Specify the name(s) of who is testing this case scenario.	**Test Case Number:**	Specify a unique test number assigned to the test case.
Test Case Description:	Provide a brief description of what functionality the case will test.		
Results:	☐ Pass ☐ Fail	**Incident Number, if applicable:**	Specify the unique identifier assigned to the incident.
INTRODUCTION			
Requirement(s) to be tested:	Identify the requirements to be tested and include the requirement number and description from the Requirements Traceability Matrix.		
Roles and Responsibilities:	Describe each project team member and stakeholder involved in the test, and identify their associated responsibility for ensuring the test is executed appropriately.		
Set Up Procedures:	Describe the sequence of actions necessary to prepare for execution of the test.		
Stop Procedures:	Describe the sequence of actions necessary to terminate the test.		
ENVIRONMENTAL NEEDS			
Hardware:	Identify the qualities and configurations of the hardware required to execute the test case.		

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Software Test Review

The following deliverables must be reviewed in a software test process:

Test Plan
Test Report
Test Design Specification
Problem/bug Reports

What does test reviews accomplish?

- Test reviews provide the primary mechanism for evaluating generated test cases.

- Test reviews train and educate the participants to receive a positive effect.

- Reviews give early feedback and prevent more serious problems from arising.

- Reviews bring individual capability to light.

TOPIC #3 – SOFTWARE TEST MANAGEMENT

Software Test Management

test team management

test process management

test project management

test manager

- **Play as a leadership role in:**
  - **planning projects**
  - **setting up a direction**
  - **motivating people**
  - **build a team**
  - **manage engineers**
- **Play as a controller in:**
  - **product evaluation**
  - **performance evaluation**
  - **changing to a new direction**
- **Play as a supporter in:**
  - **assist and train engineers**
  - **train engineers**
  - **enforce and control test methods, standards, and criteria**
  - **select and develop test tools**

Software Test Management - I

- Management	**- Manage test projects** **- Manage team members** **- Manage test processes**
- Motivation	**- Motivate quality work from team members** **- Simulate for new ideas and creative solutions**
- Methodology	**- Control of setting up test methodology, process, standards.** **- Control of establishing test criteria**
- Mechanization	**- Control the selection and development of test tools** **- Mechanism for the configuration management of test suites** **- Control of setting up an integrated test environment**
- Measurement	**- Measure test cost, complexity and efforts** **- Measure engineer performance** **- Measure test effectiveness** **- Measure product quality**

Software Test Management - II

Management:	**Do you plans address testing?** **Do you know who is responsible?** **Have you published your testing policy?**
Motivation:	**Do you provide incentive for people do quality work?** **Do you encourage people to take advantage of training opportunities in testing methods?**
Methodology:	**Are your engineers trained to use test methods?** **Are you aware of new testing techniques and use them?**
Mechanization:	**Do you sufficient hardware and equipment to support testing?** **Have you provided appropriate software testing tools and aids?** **Do you evaluate automated testing aids on an ongoing basis?**
Measurement:	**Do you track errors, faults, and failures?** **Do you know what testing costs?** **Do you quantitatively measure testing performance?**