

18MCA44E SOFTWARE TESTING

UNIT V – TEST REPORTING

FACULTY

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Test Reporting

- Test Reporting is the means of communicating the results of testing
- A final test report should be prepared at the conclusion of each test activity.
- The test reports are designed to document the results of testing as defined in the test plan.
- Without a well-developed test plan, it is difficult to develop a meaningful test report.
- A test report is designed to accomplish three objectives:
 - Define the scope of testing:
 - Normally a brief recap of the test plan
 - Present the results of testing.
 - Draw conclusions and make recommendations based on those results.

Example

- Assume that if the Client who sits in a remote location need to understand the results and status about a Testing project which was performed for a period of, say for example – four months
 - Test Summary Report will solve the purpose.

Example

- Testing of 'ABCD transport system' application.
'ABCD transport system' is a web based Bus ticket booking application. Tickets for various buses can be booked using the online facilities. Real time passenger information is received from a 'Central repository system', which will be referred before booking is confirmed. There are several modules like Registration, Booking, Payment and Reports which are integrated to fulfill the purpose.

Testing Scope & Types of testing

- **Testing Scope**
 - a) In Scope
 - b) Out of Scope
 - c) Items not tested

- **Types of testing performed**
 - a) Smoke Testing
 - b) System Integration Testing
 - c) Regression Testing

Test Metrics

- Testing by itself has no value...but it produces potentially valuable information
- Test information must be generated and communicated effectively to be valuable
- Common communication goals
 - ▣ Notify (“We have 24 bugs remaining to close”)
 - ▣ Enlighten (“See the time lost due to reopens”)
 - ▣ Influence (“We propose a bug triage meeting”)
- The metrics should be used as part of regular status reports (dashboards) as well as periodic analyses

How to Develop Metrics?

- Identify objectives
- Create questions about effectiveness, efficiency, and elegance of achievement of objectives
- Devise a measurable metric (or find a surrogate metric) to address the question
- Set a goal for each metric
- Implement improvements to enhance achievement of objectives
- Let's look at two examples...

Bug Finding Effectiveness

- Objective: Finding bugs
- Question: What percentage of bugs found?
- Metric: Defect detection percentage
- Goal: A typical number is 85%, though some teams do much better

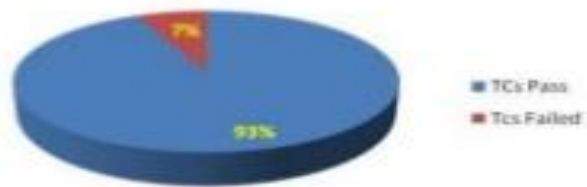
$$DDP = \frac{\text{bugs detected}}{\text{bugs present}}$$

$$DDP \text{ (for testing)} = \frac{\text{test bugs}}{\text{test bugs} + \text{production bugs}}$$

Report Metrics

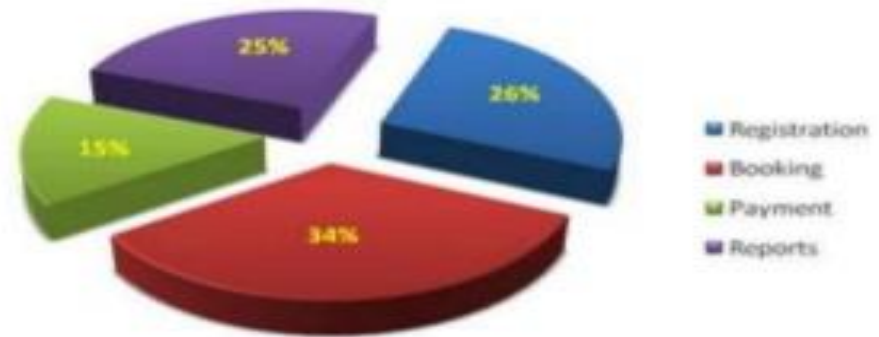
Test cases planned	Test cases executed	TCs Pass	Tcs Failed
80	75	70	5

Test Cases Pass vs Fail



	Registration	Booking	Payment	Reports	Total
Critical	6	7	5	7	25
Major	4	5	2	4	15
Medium	6	8	2	4	20
Cosmetic	1	2	1	1	5
Total-->	17	22	10	16	65

Defects Distribution-Module Wise



Test Environment & Lessons Learnt

Test Environment & Tools

Application URL	http://abcd.2345.com
Apps Server	192.168.xxx.22
Database	Oracle 12g
HP QC/ALM	192.168.xxx.22

Lessons Learnt

S. No	Issues faced	Solutions
1	Smoke testing test cases required to be executed manually each time.	Smoke test cases were automated and the scripts were run, which ran fast and saved time.
2	Initially, Few testers were not having rights to change defect status in HP QC/ALM. Test lead need to perform this task.	Rights were obtained from Client, by explaining the difficulty.

THANK YOU

**This content is taken from the text books and reference books
prescribed in the syllabus.**