

fit@hcmus

Software Testing

CSC13003

Test case

Test Case

- A test that (ideally) executes a single well defined test objective (Testing Computer Software – Kaner, Faulk, Nguyen)
- A specific set of test data and associated procedures developed for a particular objectives (IEEE 729-1983)

Why write test case?

- Accountability
- Reproducibility
- Tracking
- Automation
- To find bugs
- To verify that tests are being executed correctly
- To measure test coverage

Test case Essentials

- Tracking information
- Test case ID
- Test case description
 - Objective/Title
 - Steps
 - Test data: input/output/default
 - Expected results
 - Observed results
 - Status: Pass/Fail/Blocked/Skipped
- Test environment
- Script
- Bug ID
- Comments
- ...

Test case Essentials

- Test case Objective/Title
 - The most important essential
 - Gives reader a description and idea of the test
 - A good test name makes review easier
 - Easier to pass to another person, automation team
 - In many cases, may be the only part of the test case documented

Test case Essentials

- Test case Objective/Title Syntax

Action + Function + Operating Condition

- Action: Verify, Test, Validate, Execute, Run, Print...
- Function: function, feature, validation point
- Operating Condition: data, specific condition

Action	Function	Operating Condition
Run	annual report	from standard data (file location)
Run	annual report	on Day 1 of fiscal year
Run	annual report	from empty spreadsheet
Run	annual report	on last day of fiscal year

Test case Essentials

- Validation Point
 - This is the expected result
 - Write it as a step
 - Define clearly state: what behavior, result or point that you are attempting to validate

Test Case Template

TC ID	Description	Steps	Expected Result	Observed result	Status
TC001	<p><i>/*Test objective*/</i></p>	<p><i>/*Very clear and specific steps*/</i></p> <p><u>Pre-condition:</u></p> <p><u>Steps:</u></p> <p>1. Action 1</p> <p>2. Action 2</p> <p>.....</p>	<p><i>/*you need to pre determine what your program is supposed to do*/</i></p>	<p><i>/* write down the result that you get when execute the test case*/</i></p>	Passed/ Failed

What is a Good Test case?

- Accurate – tests what it is designed to test
- Economical – no unnecessary steps
- Repeatable, reusable – keep going on
- Traceable – to a requirement
- Appropriate – for test environment
- Self standing – independent of the writer
- Self cleaning – picks up after itself



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