

Test Cases, Test Scenarios and Test Execution



Yuksel Ahmedov

QA Trainer

www.qualityassuranceteam.com

Software University

<http://softuni.bg>

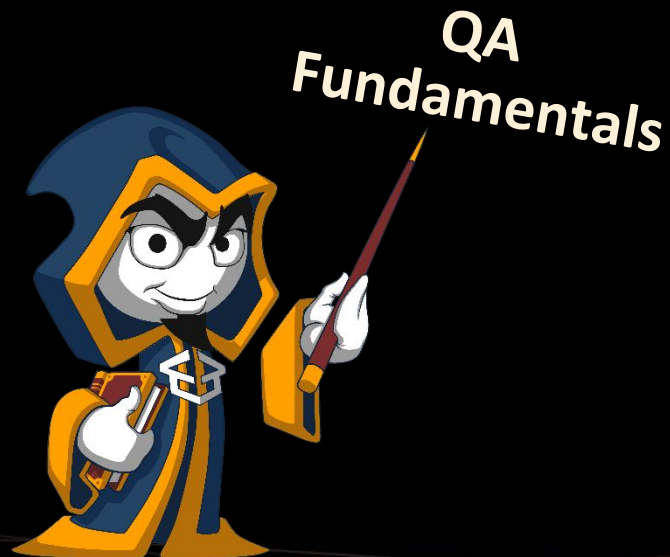


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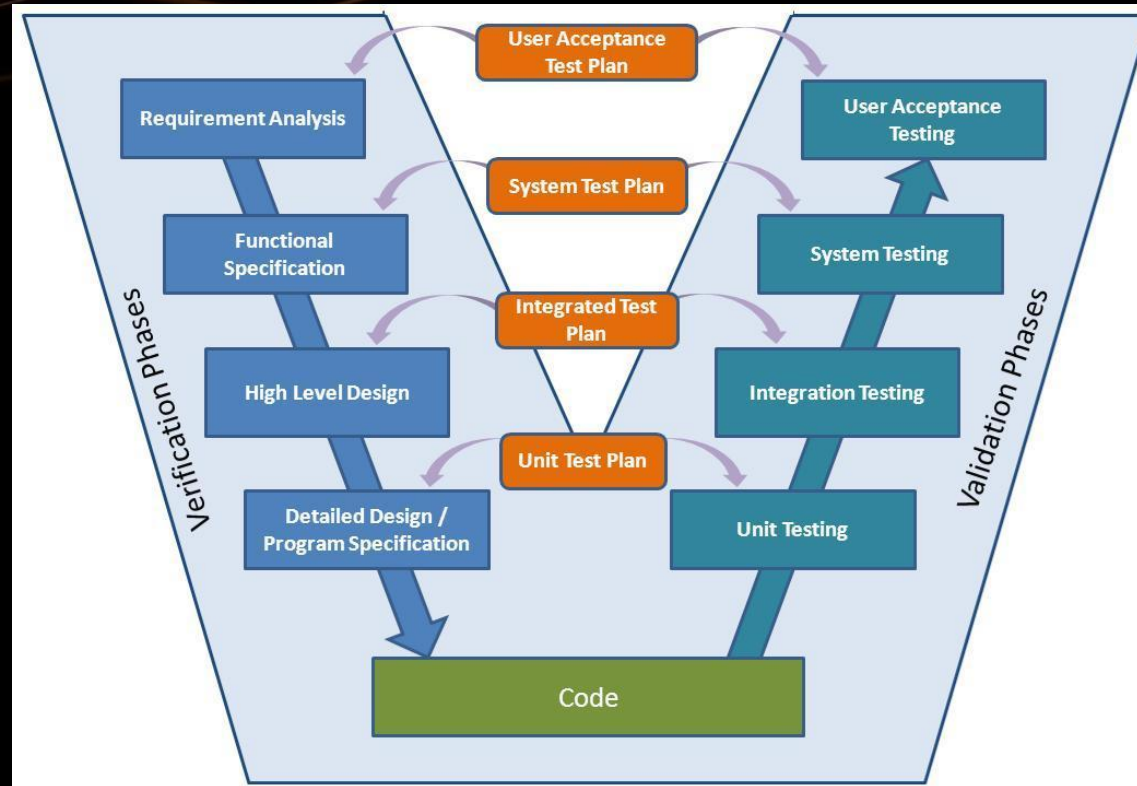




**KEEP
CALM
AND
MAKE A
PLAN**

Test Plan

V-model



Test Plan

- Documents the verification strategy
- Strategy may vary on
 - Design verification or Compliance test
 - Development or Production test
 - Acceptance or Commissioning test
 - Service and repair test
 - Regression test



Test Plan (2)

- Three major elements should be described
 - Test coverage
 - Test methods
 - Test responsibilities



Test Plan (3)

- Test plans usually are written with templates
- Example test plan

Test Plan Template

Project Name

Project Number: _____

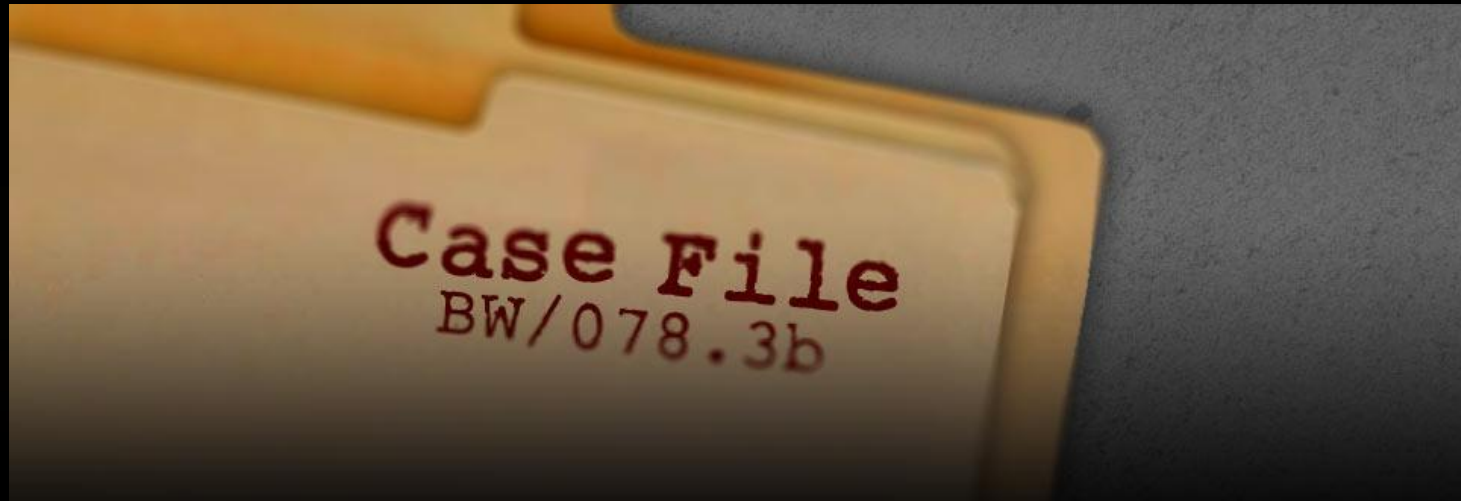
Test Plan

Version Num: _____

Effective Date: _____

Project Manager: _____

Prepared By: _____



Test Case

Test Case

- Sequence of steps to check the correct behavior
- At least two cases to fully test a requirement
 - A positive test
 - A negative test
- Consist of
 - Title
 - Steps to follow
 - Expected result

1	A	B	C	D	E	F	G	H
2	ID	TC00051					Cycle	Major
3	Name	Test Login					Category	Regression Tests
4	Revision	1.0						
5	Description	Check the basic login functionality						
6	Precondition	Server installed						
7	Postcondition	User is logged in						
8	Expected Result							
9								
10	Note	Do not skip this!						
11	Area	REGRESSION						
12	Design Method	BLACK BOX						
13	Variety	NEGATIVE						
14	Execution	MANUAL						
15	Priority	MEDIUM						
16	State							
17	Team	QA						
18	Level	COMPONENT						
19	Document Base	Requirements Document 1.5 (12.7.2011)						
20	Dependency	-						
21	Evaluation	MANUAL						
22	Traceability	UC-112						
23								
24								
25	Step	Action	Precondition	Postcondition	Expected Result			
26		1 Open login page			Login page displayed			
27		2 Enter username						
28		3 Enter password			Password should not be visible			
29		4 Press ok			User is logged in			
30								

Test Case (2)

- Optionally may consist of
 - ID
 - Description
 - Related requirements
 - Test category
 - Author
 - Is automated
 - Pass/fail



Test Case (3)

- Example test case

Step No: 1

Step description: Login to the app with user:
“XXX” and password: “YYY”

Expected result: Home page is displayed

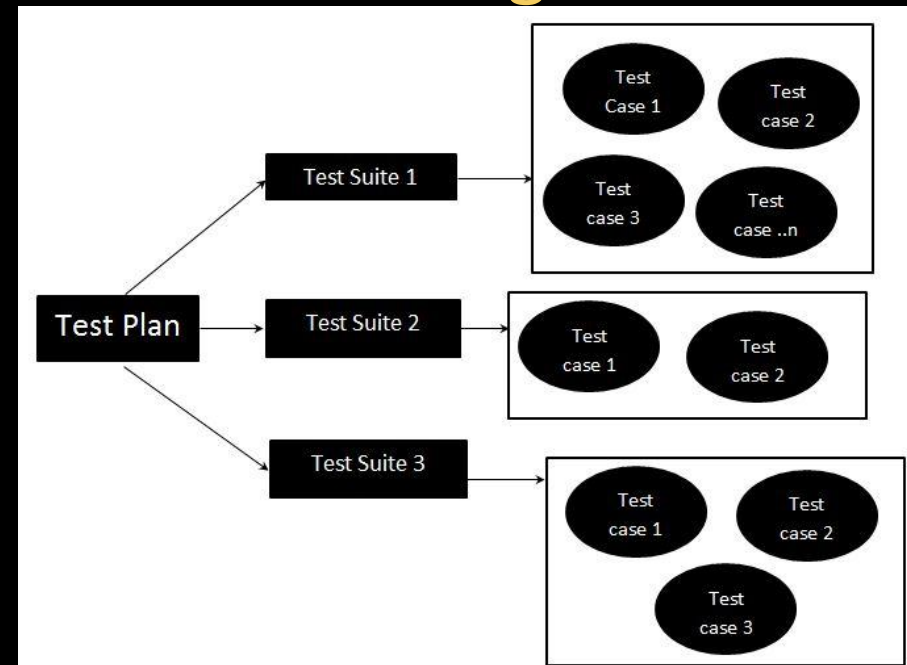
Step No: 2

Step description: Click “Logout”

Expected result: Login page is displayed

Test Case (4)

- Test cases can be part of a Test suite
- Test suite is a group of similar Test cases
 - Login functionality test cases leads to Login test suite
- Test suites can be
 - Abstract test suites
 - Executable test suites





Test Scenario

Test Scenario

A scenario describes how a system is used in context of activity in a defined time-frame

- Provides overview of
 - What to be tested
 - In which conditions



Test Scenario (2)

- Test cases vs. test scenarios

Test scenario: Verify that device automatically connects to Wi-Fi if user creates new profile

Test cases:

Test case 1: Create Wi-Fi profile and verify that it created successfully

Test case 2: Verify that device is able to connect to Wi-Fi

Test scenario (3)

- Test scenario examples

User should have an option to get his username/password back in case he has forgotten the same

User should have an option to sell items in any currency one wants to



Test Execution

Test Execution

Test execution is the process of executing the code and comparing the expected and actual results.

- Test execution process factors
 - Test suites to be executed in that cycle
 - Assigning test cases to respective testers
 - Resolve blocking issues as they arise

Summary

- The V-Model
- Test plan
- Writing test cases
- Bundling cases into a suite
- Test execution



Useful Links

- Demo applications to test:
<https://openui5.hana.ondemand.com/#/demoapps>
- Seven testing principles:
<http://istqbexamcertification.com/what-are-the-principles-of-testing/>
- TestRail (Test management system): <https://january2018.testrail.io>

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Questions?



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