How to write test cases?

Requirements

Use cases

Design documents

Understanding requirements

- First understand Business requirements get the big picture of what is being achieved from business perspective.
- Read and understand how Business requirements are exploded into functional requirements.
- Go through Technical specification and UI design document to gain understanding of how the business requirements get translated into application functionality.
- Once you do this exercise obviously you will get at least few questions, or you may even discover few gaps in the requirements.
- Reach out to Business Analyst and Business User (as required) and get your questions answered. Now you are ready to go ahead with your Test Scenario identification.
- Identify Test Scenarios, Test Conditions and Expected results. Once you have sign-off on Test Scenarios, Test Conditions and Expected results, start creating Test Cases.

Design documents

- Also consider verifying the technical aspects mentioned in the Technical and look and feel aspects mentioned in UI design documents.
- Some of the technical aspects like:
 - Field Length
 - Validation
 - Data structures will be documented in-detail in Technical specification.
- So, during test case construction, one has to incorporate additional validations as well.

How to write test cases?

- Get the test cases reviewed
- Detail of each test case
- Write test cases in plain English
- Requirement traceability matrix (RTM)
- Provide test data within the test cases
- Test case version control
- Prioritize test cases
- Pre-requisites and clean up sections

unique-test-case-id: Test Case Title	
Purpose	Short sentence or two about the aspect of the system is being tested. If this gets too long, break the test case up or put more information into the feature descriptions.
Prereq	Assumptions that must be met before the test case can be run. E.g., "logged in", "guest login allowed", "user testuser exists".
Test Data	List of variables and their possible values used in the test case. You can list specific values or describe value ranges. The test case should be performed once for each <i>combination</i> of values. These values are written in set notation, one per line. E.g.: loginID = {Valid loginID, invalid loginID, valid email, invalid email, empty} password = {valid, invalid, empty}
Steps	Steps to carry out the test. See step formating rules below. 1.visit LoginPage 2.enter userID 3.enter password 4.click login 5.see the terms of use page 6.click agree radio button at page bottom 7.click submit button 8.see PersonalPage 9.verify that welcome message is correct username
Notes and Questions:	NOTE QUESTION



Test case review!

- Get your Test Cases reviewed by Business Analyst and Business Users.
- It is always good to get inputs from Subject Matter Experts
- It is better to get review comments from Business Analysts and Business Users before testing starts rather than they pointing out at the deficiencies of your test cases during acceptance testing or Post implementation.

How detailed should be a test case?

- Test Cases steps should be as detailed as possible and should not be written at high level.
- Writing detailed test steps is very important because the same person who wrote the test cases may not always execute the same test cases.
- If the test cases are not very detailed, then the person who executes the
 test case for the first time will not be able to validate the system
 thoroughly as he/she might have not gone through the requirements
 and will test only as per the test case steps.

Example of detail

- Example of a Test Case that is written at high level.
 - Step No: 1
 Step Description: Login to test application with valid user id/password Expected Result: Home page is displayed
 - Step No: 2
 Step Description: Click "Logout" link on home page Expected Result: Login page is displayed
- Example of a Test case written that is written in detail.
 - Step No: 1
 Step Description: Open URL https://www.example.com/login.asp
 Expected Result: Login page is displayed and contain the below fields
 - a) "User Name" text field
 - b) "Password" text field
 - c) "Submit" button
 - Step No: 2
 - Step Description: Once Login page is displayed. Enter valid userid/password.
 - a) Enter "user1" in "User Name" text field
 - b) Enter "abc123" in "password" text field
 - Expected Result: a) Verify "User Name" is populated with text "user1"
 - b) Verify text entered in "password" field is masked and is not readable.
 - Step No: 3
 - Step Description: Click "Submit" button
 - Expected Result: Verify application "Home" page is displayed
 - a) Verify "Home" page displays "Welcome user1" message on top of left navigation Menu.
 - b) Verify Left Navigation menu contains links "Directory", "Submission", "Latest Links", "Approve Links", "Logout".
 - Step No: 4
 - Step Description: Click "Logout" link on the left menu.
 - Expected Result: Verify user is successfully logged out of the application and application login page is displayed https://www.example.com/login.asp