



Software Engineering (Experiments)

Mrs. Yoothika S. Patel, Assistant Professor
CSE, PIET



Experiment-9

Write the test cases for the identified module.



Aim: Write the test cases for the identified module.

Objectives: To make use of concept of testing to be applied for generating the test cases for the identified module.



Basics:

- A test plan is the elementary document that you refer while testing any software. The responsibility of creating the complete test plan for a project lies with the test manager. Test planning reveals the entire project's testing schedule and approach. Hence, it is important to know the amount of effort and the kind of information that goes into a test plan.
- A good test plan will help to efficiently communicate and document the test effort with well constructed test plans, test cases, and test reports. It will also help the testers in achieving the desired quality for the product being tested.

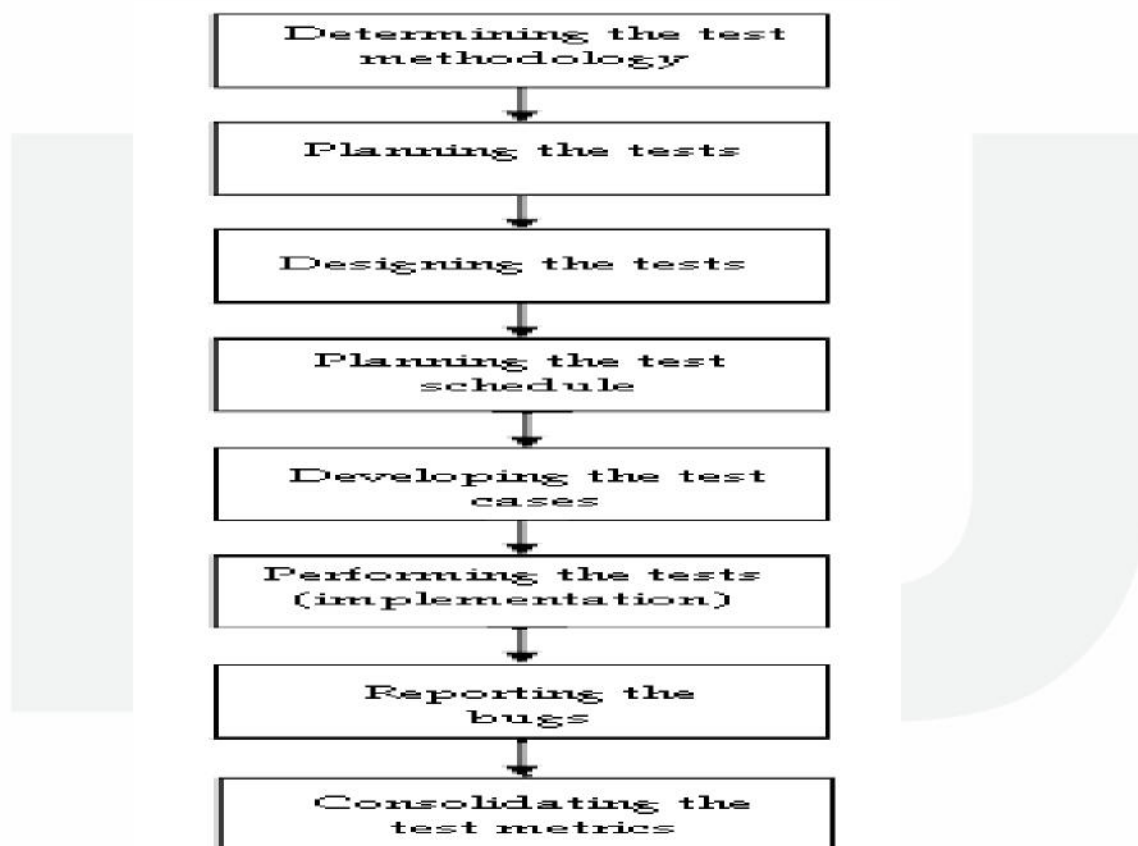


Goals :

- The testing process cannot take place without prior communication with the programmers of the software. This is because the testers cannot start testing the software unless they know what the code does and how it works. Similarly, communicating with other software testers is also important. It helps to understand:
 1. What to test?
 2. What resources will be needed?
 3. What will the schedule be?
- The software test plan is the principal way through which software testers communicate their intent to the code developers.



Typical Test Resource Graph:





Test Cases:

- The test case is the heart of a test plan. A test case is a document that describes a set of data inputs and operating conditions required to run a test, together with the expected results of the run.
- The tester should run the software according to the test case documentation and then compare the actual results with the expected results noted in the documents.
- If the obtained results are in complete agreement with the expected results, then it indicates that no error has been identified. The result of such a test case is said to be 'pass'.
- A potential error is said to be identified when some or all of the results do not agree with the expected results. In such cases, the test case will have the status 'fail'.



Test Cases :

The test procedure or test script specification specifies the step-by-step details on how to perform the test cases. Here is the information that needs to be specified:

1. Identifier:
2. Purpose:
3. Special Requirements:
4. Procedure Steps:
5. Log:
6. Setup:
7. Start:
8. Procedure:
9. Measure:
10. Shut Down:
11. Restart:
12. Stop:
13. Wrap Up:
14. Contingencies:

Experiment Demonstration



Writing an Adhoc Test case for an ATM Machine

Test cases:

1. Machine is accepting ATM card

Actual output	Expected output	Test case name	Test case ID
Card accepted	Card accepted	ATM Card inserted	1
Card rejected with error message (Insert Card properly)	Card rejected	Only half card inserted	2

2. Machine is rejecting expired card (expired date- 12/10/2015)

Actual output	Expected output	Test case name	Test case ID
Card accepted	Card accepted	Card inserted on 2/10/2015	1
Card rejected with error message(expired card inserted)	Card rejected	Card inserted on 13/10/2015	2



Test case for an ATM Machine (Cont.)

3. Successfully entry of pin

Actual output	Expected output	Test case name	Test case ID
Menu Screen displayed	Menu Screen displayed	Correct Pin enter	1
Enter valid pin	Card Rejected	Incomplete pin entered	2

4. Unsuccessful operation due to enter wrong pin 3 times

Actual output	Expected output	Test case name	Test case ID
Menu Screen displayed	Menu Screen displayed	Correct Pin enter at 2nd Time	1
Improper pin entered and the card is not active	Card Rejected	Wrong pin entered 3rd Time	2



Test case for an ATM Machine (Cont.)

5. Successful selection of language

Actual output	Expected output	Test case name	Test case ID
Proceed to transaction	Enter the pin screen is Displayed	User preferable language selected (English)	1
Unable to make transaction	Enter the pin screen is displayed but user not able to understand the language	User preferable	2

6. Unsuccessful operation due to invalid account type

Actual output	Expected output	Test case name	Test case ID
Transaction failed	Transaction successful	Trying to withdrawal cash (invalid account type)	1
Select correct account type	Balance to be display	Balance enquiry	2



Test case for an ATM Machine (Cont.)

7. Successful withdrawn

Actual output	Expected output	Test case name	Test case ID
Transaction successful	Withdrawn successful	All details entered correctly	1
Transaction failed(Enter the correct details)	Transaction failed	All details entered incorrectly	2

8.Expected message due to amount is greater than the day limit (10000)

Actual output	Expected output	Test case name	Test case ID
Transaction Successful. (Collect your money)	Transaction Successful	Entered amount 8000	1
Transaction failed with message (Amount exceed the days limit)	Transaction failed	Entered amount 15000	2