

Manual Testing



What is Manual testing

- ***Manual testing*** is the process of testing the functions and features of an application as an end-user in order to verify the software is working as required.
To ensure completeness of testing, the tester often follows a written test plan that leads them through a set of important test cases.



When manual takes over automation

NEW FUNCTIONALITY? USE MANUAL TESTING – IF AN APP CONTAINS NEW FUNCTIONALITY, IT SHOULD BE TESTED MANUALLY. WITH NEW FUNCTIONALITY, TESTERS WON'T KNOW WHAT TYPE OF AUTOMATED TEST SCRIPT TO WRITE PRIOR TO PERFORMING A MANUAL TEST.

ONLY TESTING ONCE? MAKE IT MANUAL – OBVIOUSLY, IF ONLY ONE FUNCTION OF ONE MOBILE APP IS BEING TESTED, IT DOESN'T MAKE SENSE TO SPEND THE TIME AND ENERGY TO CREATE AN AUTOMATED TESTING SCRIPT. ALTHOUGH MANUAL TESTING MAY TAKE LONGER THAN RUNNING AN AUTOMATED TEST, SCRIPT CREATION TAKES TIME. IF THERE ISN'T A CASE FOR RE-USE, THERE IS REALLY NO NEED TO TIE UP AUTOMATION EXPERTS WITH SCRIPT CREATION FOR A SINGLE TEST CASE.

SOMETHING YOU CANNOT AUTOMATE? MAKE IT MANUAL - THERE MIGHT BE COUPLE TEST SCENARIOS WHERE YOU CANNOT WRITE AN AUTOMATED SCRIPT TO TEST AS A CAPTCHA OR IMAGE

- **Usability testing**

This is an area in which you need to measure how user-friendly, efficient, or convenient the software or product is for the end users. Here, human observation is the most important factor, so a manual approach is preferable.

- **Exploratory testing**

Process of exploring the application and understanding the functionalities, adding or modifying existing test cases for better testing or looking for any issues.

- **Ad-hoc testing**

Also known as Random Testing or Monkey Testing, is a method of software testing without any planning and documentation. The tests are conducted informally and randomly without any formal procedure or expected results.

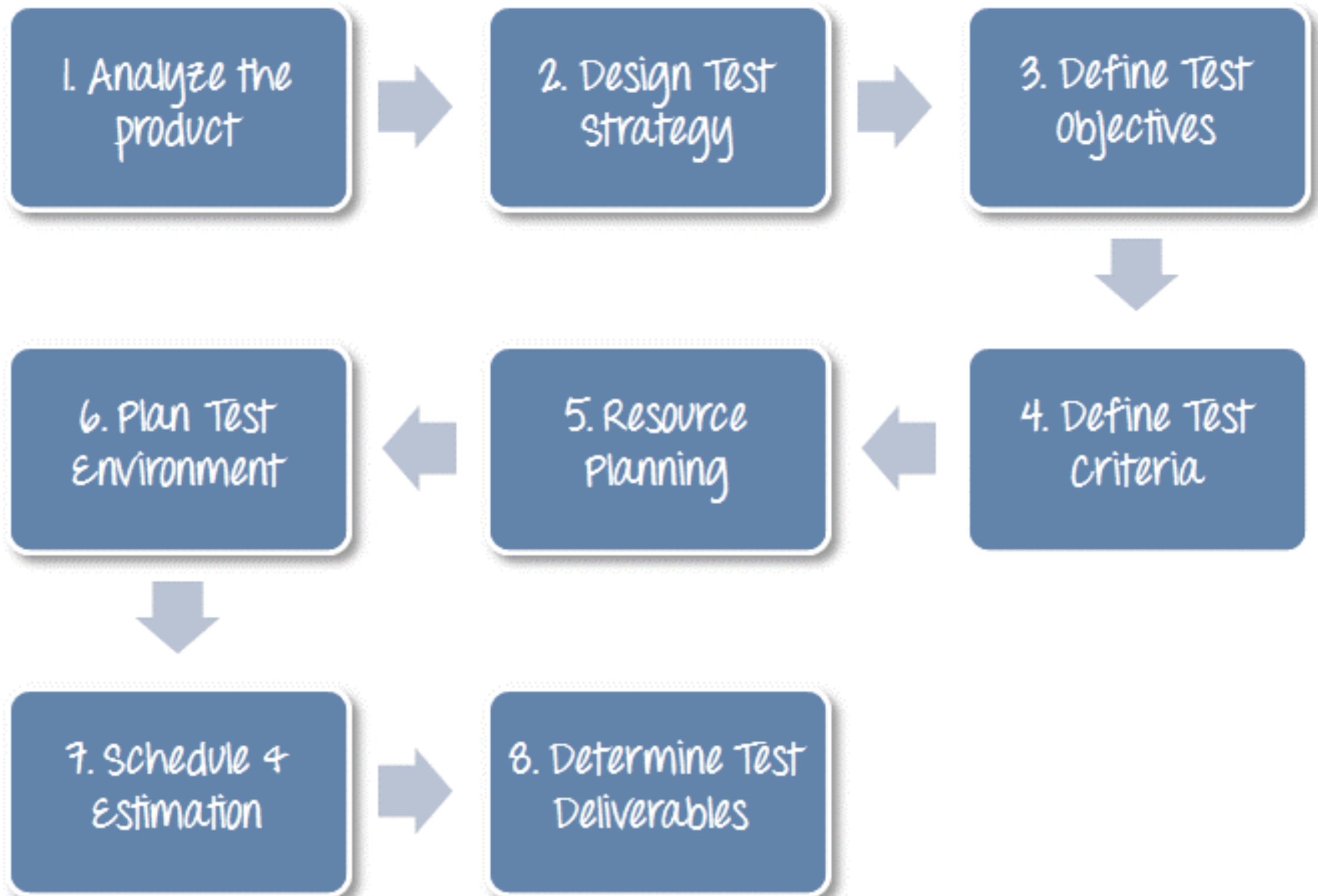


Test Plan Definition

A document that describing the scope, approach, resources and schedule of intended test activities.

- Test Plan helps us determine the **effort** needed to validate the quality of the application under test
- Help people outside the test team such as developers, business managers, customers **understand** the details of testing.
- Test Plan **guides** our thinking. It is like a rule book, which needs to be followed.
- Important aspects like test estimation, test scope, test strategy are **documented** in Test Plan, so it can be reviewed by Management Team and re-used for other projects.

Steps to write test plan



Test Case

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How To Test

Vs

What To Test

Test Scenario

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What is a Test Scenario?

- Test Scenario answers “**What to be tested**”
- Test Scenario gives the idea of what we have to test. Test Scenario is like a high-level test case.
- Assume that we need to test the functionality of a login page of Gmail application. Test scenario for the Gmail login page functionality as follows:

Test Scenario Example: Verify the login functionality

What is a Test Case?

- Test cases are the set of positive and negative executable steps of a test scenario which has a set of pre-conditions, test data, expected result, post-conditions and actual results.
- Test Case answers “**How to be tested**”
- Assume that we need to test the functionality of a login page of Gmail application. Test cases for the above login page functionality as follows:

Test Case Examples:

Test Case 1: Enter valid User Name and valid Password

Test Case 2: Enter valid User Name and invalid Password

Test Case 3: Enter invalid User Name and valid Password

Test Case 4: Enter invalid User Name and invalid Password

Positive vs Negative testing

- **Requirement:**

- For Example if a text box is listed as a feature and in SRS it is mentioned as Text box accepts 6 - 20 characters and only alphabets.

- **Positive Test Cases:**

- Textbox accepts 6 characters.
- Textbox accepts upto 20 chars length.
- Textbox accepts any value in between 6-20 chars length.
- Textbox accepts all alphabets.

- **Negative Test Cases:**

- Textbox should not accept less than 6 chars.
- Textbox should not accept chars more than 20 chars.
- Textbox should not accept special characters.
- Textbox should not accept numerical.

Test case Content

- Test Case ID
- Test Case Description
- Test Steps
- Prerequisite (if any)
- Test Data
- Expected Result
- Actual Result
- Comments


Test case example

	A	B	C	D	E	F	G	H	I	J	K
1	Test Case ID		BU_001	Test Case Description		Test the Login Functionality in Banking					
2	Created By		Mark	Reviewed By		Bill		Version		2.1	
3											
4	QA Tester's Log		Review comments from Bill incorporated in version 2.1								
5											
6	Tester's Name		Mark	Date Tested		1-Jan-2025		Test Case (Pass/Fail/Not		Pass	
7											
8	S #	Prerequisites:				S #	Test Data				
9	1	Access to Chrome Browser				1	Userid = mg12345				
10	2					2	Pass = df12@434c				
11	3					3					
12	4					4					
13											
14	Test Scenario	Verify on entering valid userid and password, the customer can login									
15											
16	Step #	Step Details		Expected Results		Actual Results			Pass / Fail / Not executed / Suspended		
17											
18	1	Navigate to http://demo.guru99.com		Site should open		As Expected			Pass		
19	2	Enter Userid & Password		Credential can be entered		As Expected			Pass		
20	3	Click Submit		Cutomer is logged in		As Expected			Pass		
21	4										
22											

Test case example

Test Case ID	Test Case Objective	Pre requisite	Steps	Input Data	Expected Output	Actual Output	Status
TC_01	Test Caesar Cipher Algorithm (For Encryption)	Textfield should be enabled	1. Select Encrypt Button 2. Enter Plain Text 3. Enter Numeric Key 4. Submit	P: hello K: 3	khoor	khoor	PASS
TC_02	Test Caesar Cipher Algorithm (For Decryption)	Textfield should be enabled	1. Select Decrypt Button 2. Enter Cipher Text 3. Enter Numeric Key 4. Submit	C: khoor K: 3	hello	hello	PASS
TC_03	Test Vignere Cipher	Text Fields should be enabled	1. Enter Plain Text 2. Enter String Key 3. Submit	P: hello K: abcds	hfnog	fhgon	FAIL
TC_04	Test MD5	Text Fields should be enabled	1. Enter Plain Text 2. Submit	T: hello	5d41402a bc4b2a76 b9719d91 1017c592	5d41402a bc4b2a76 b9719d91 1017c592	PASS
TC_05	Test Columner Cipher	Text Fields should be enabled	1. Enter Plain Text 2. Enter Numeric Key 3. Submit	P: hello K: 3	hleol	hleol	PASS

Test case example

Project Name:	Google Email	 www.SoftwareTestingMaterial.com
Module Name:	Login	
Reference Document:	If any	
Created by:	Rajkumar	
Date of creation:	DD-MMM-YY	
Date of review:	DD-MMM-YY	

TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/FAIL)
TC_LOGIN_001	Verify the login of Gmail	Enter valid User Name and valid Password	1. Need a valid Gmail Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Valid User Name> <Valid Password>	Successful login	Gmail inbox is shown		
TC_LOGIN_001	Verify the login of Gmail	Enter valid User Name and invalid Password	1. Need a valid Gmail Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Valid User Name> <Invalid Password>	A message "The email and password you entered don't match" is shown			
TC_LOGIN_001	Verify the login of Gmail	Enter invalid User Name and valid Password	1. Need a valid Gmail Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Invalid User Name> <Valid Password>	A message "The email and password you entered don't match" is shown			
TC_LOGIN_001	Verify the login of Gmail	Enter invalid User Name and invalid Password	1. Need a valid Gmail Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Invalid User Name> <Invalid Password>	A message "The email and password you entered don't match" is shown			