

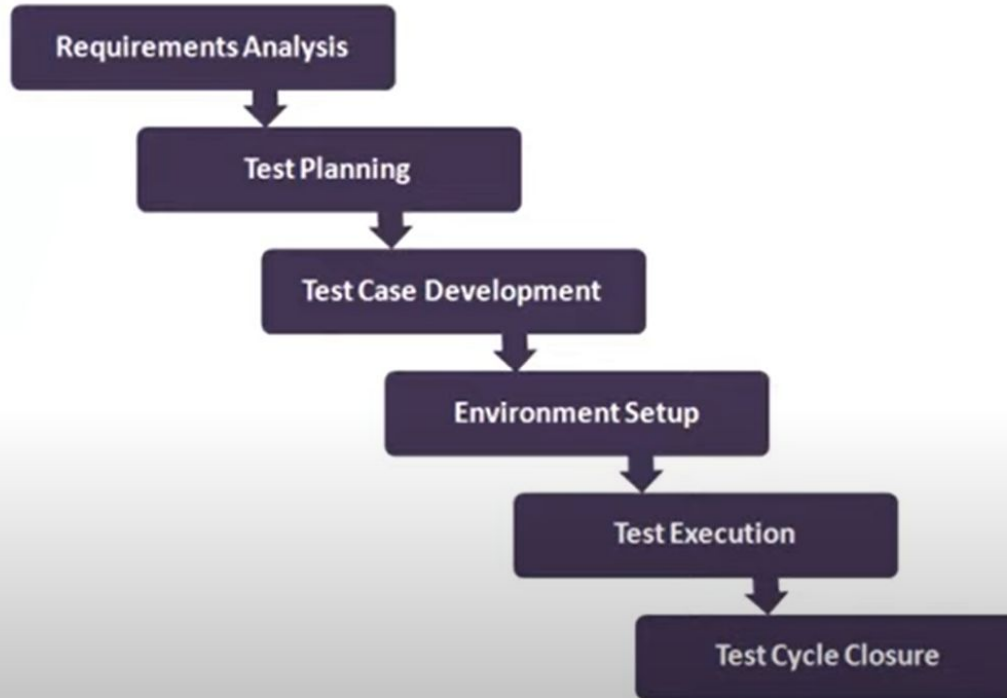
STLC

Software Testing Life Cycle

Steps in STLC

1. Requirement Analysis
2. Test Planning
3. Test Design
4. Test Execution
5. Defect Reporting / Bug Reporting
6. Test Closure

Software Testing Life Cycle (STLC)



STLC

SNO	PHASE	Input	Activities	Responsibility	Out Come
1	Test Planning	Project Plan	➤ Identify the Resources	Test Lead/Team Lead (70%)	Test Plan Document
	What to test	Functional Requirements	➤ Team Formation	Test Manager (30%)	
	How to test		➤ Test Estimation		
	when to test		➤ Preparation of Test Plan		
			➤ Reviews on Test Plan		
			➤ Test Plan Sign-off		
2	Test Designing	Project Plan	➤ Preparation of Test Scenarios	Test Lead/Team Lead(30%)	Test Cases Document
		Functional Requirements	➤ Preparation of Test Cases	Test Engineers(70%)	Traceability Matrix
		Test Plan	➤ Reviews on Test Cases		
		Design Docs	➤ Traceability Matrix		
		Use cases	➤ Test Cases Sign-off		
3	Test Execution	Functional Requirements	➤ Executing Test cases	Test Lead/Team Lead(10%)	Status/Test Reports
		Test Plan	➤ Preparation of Test Report/Test Log	Test Engineers (90%)	
		Test Cases	➤ Identifying Defects		
		Build from Development Team			
4	Defect Reporting & Tracking	Test Cases	➤ Preparation of Defect Report	Test Lead/Team Lead(10%)	Defect Report
		Test Reports/Test Log	➤ Reporting Defects to Developers	Test Engineers (90%)	
5	Test Closure/Sign-Off	Test Reports	➤ Analyzing Test Reports	Test Lead/Test Manger(70%)	Test Summary Reports
		Defect Reports	➤ Analyzing Bug Reporting	Test Enginners(30%)	
			➤ Evaluating Exit Criteria		

Test Plan Contents

- A Test plan is a document that describes the test scope, test strategy, objectives, schedules, deliverables, and resources required to perform testing for a software product.
- **Test plan template contents:**
 - Overview
 - Scope
 - Inclusions
 - Test Environment
 - Exclusions
 - Test Strategy
 - Defect Reporting Procedure
 - Roles/ Responsibility
 - Test Schedule
 - Test Deliverable
 - Pricing
 - Entry and Exit Criteria
 - Suspension and Resumption Criteria
 - Tools
 - Risks and Mitigation
 - Approvals

Use case, Test Scenario and Test Case

- **Use Case:**

- Use case describes the requirement
- Use case contains THREE items
 - **Actor**, which is the user, which can be a single person or a group of people, interacting with a process.
 - **Action**, which is to reach the final outcome.
 - **Goal/Outcome**, which is the successful user outcome.

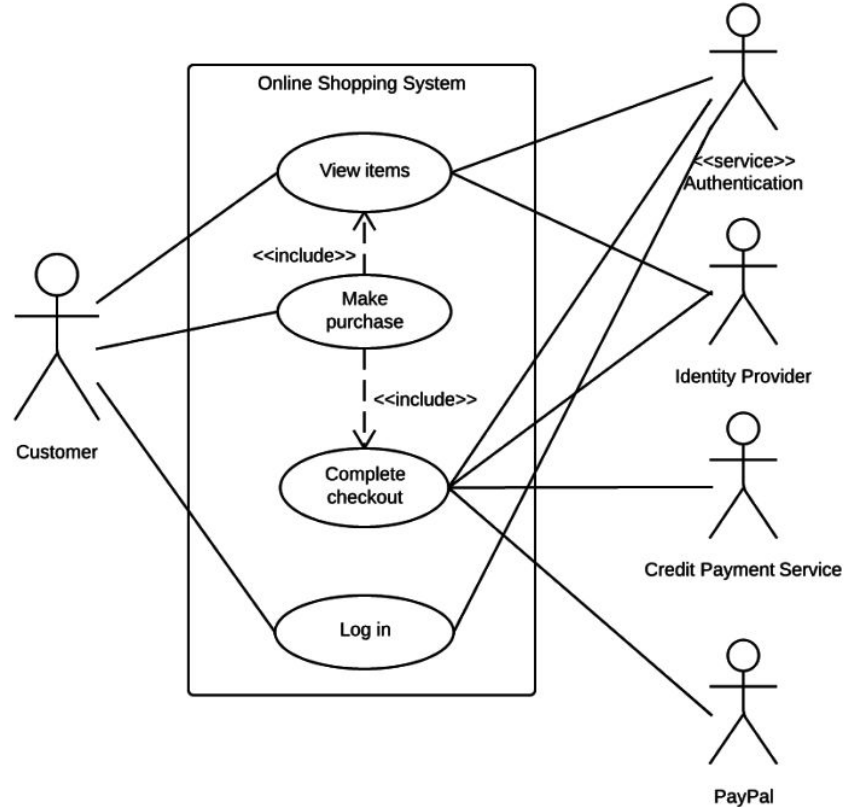
- **Test Scenario:**

- A possible area to be tested (What to test)

- **Test Case:**

- Step by step actions to be performed to validate functionality (How to test)
- Test case contains test steps, expected result and actual result.

Sample Use Case



Use Case vs Test Case

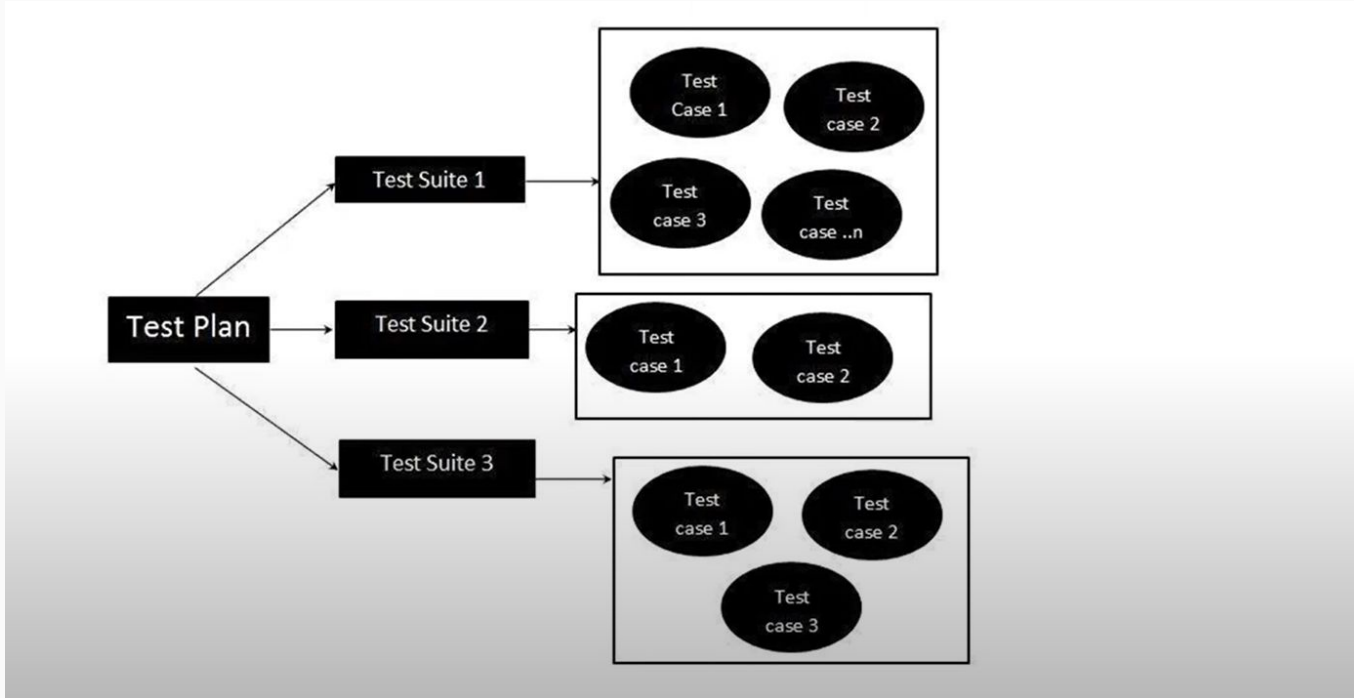
- **Use Case**
 - Describes functional requirement, prepared by Business Analyst
- **Test Case**
 - Describes Test Steps/ Procedure, prepared by Test Engineer

Test Scenario vs Test Case

- Test Scenario is “**What to be tested**”, and Test Case is “**How to be tested**”
- **Example:**
- Test Scenario: Checking the functionality of Login button
 - TC1: Click the button without entering username and password
 - TC2: Click the button only entering Username
 - TC3: click the button while entering wrong user name and wrong password

Test Suite

- Test Suite is ground of test cases which belongs to same category.



What is Test Case?

- A Test Case is a set of actions executed to validate particular feature or functionality of your software application.

Test Case Contents

- Test Case ID
- Test Case Title
- Description
- Pre-condition
- Priority (P0, P1, P2, P3) - order
- Requirement ID
- Steps/Actions
- Expected Result
- Actual Result
- Test data

Test Case Template

Microsoft Excel - Spicejet_BookAFlight_Testcase_2.0											
	A	B	C	D	E	F	G	H	I	J	K
	Module Name	Req ID	TestType	Priorit y	Test case ID	Test Scenario	Precondition	Testcases / Teststeps	Actual Result	Expected Result	Result
1	Homepage	1	+ve	p1	1	Verify the URL of the home page	1. Open the browser 2. Enter the URL:http://spicejet.com/ Click on Go or Press Enter	1. Open the browser 2. Enter the URL http://spicejet.com/ 3. Click on Go or Press Enter		Browser should navigate to the home page	
2	BookaFlight	2	GUI	P3	1	Verify the GUI of home page	Open the URL http://spicejet.com	1. Check the spell of all the fields 2. Check alignment of all the fields 3. Check the font of all the fields 4. Check the color of all the fields 5. Check the look and feel of the page	Application is maintaining the consistency Student discount is displaying instead of student	Application should maintain the consistency	Pass
3	BookaFlight	2	+ve	P1	2	Verify the fields in bookaflight page	Open the URL http://spicejet.com	Check the below fields in home page Field Name Field Type Round trip Radio Oneway Radio Leaving From Dropdown Going To Dropdown Date Picker1 Date Picker Date Picker2 Date Picker Adult Dropdown Children Dropdown Infants Dropdown Indian armed forces personnel Checkbox Student Check box Find flights Button		Application should display all the fields in bookaflight page	Fail