STLC (Software Testing Life Cycle)
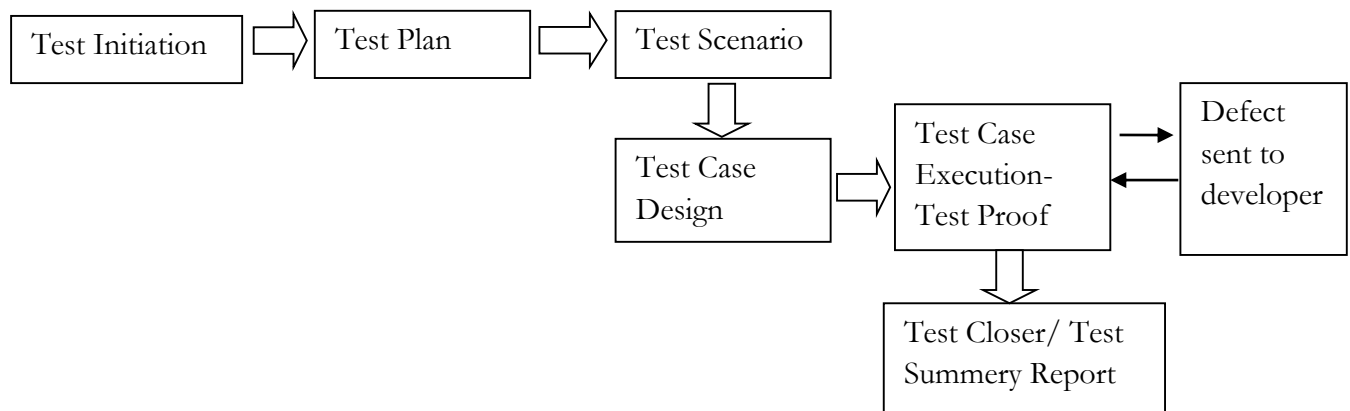
What is your organizations testing process?

What is STLC?

STLC is a sequence of **different activities performed** by the **testing team** to ensure the **quality** of the **software** or **product**

It's a systematic approach to **validate application** based on the **stakeholder requirement & expectation**

It describe **step by step process** performed by **separate testing team** in order to **validate application**

STLC there are different stages-

Test Initiation

- In my organization testing process is **started with test initiation process**
- In Test initiation, **SM is work**
- In test initiation **scrum master focuses** on
    1. Requirement analysis (Requirement of project)
    2. Scope of project
    3. Risk analysis (Risk involve in the project)

1. **Requirement of project**

- Requirement of the project means **domain of the project** (on which project domain we are working)
- **Ex**. Banking, Telecom, Healthcare, Insurance, E-commerce etc.

2. **Scope of the project**
- In this the strategies will be decided to test the functionality of modules present in the project

3. **Risk Involve in the project**
- Risk occurs in project are
  - Less resources
  - Less test data
  - Lack of knowledge

Test Plan

- In Test plan stage, **test lead will work**

- Test lead will **prepared test plane**

- These test plan will contains **Resource allocation, Job allocation & Estimation**

- Test plan contains -**What to test, Who will test, When to test & How to test**

- **Job allocation / Task allocation**- means testing are selected in that particular project

- **Resource allocation / Team formation**- resources means people are allocated for that particular project based on that selected testing

- **Estimation**- means start to end date of project

Test Scenario

- Having **analyzed requirement document** & **assigned user stories** as a **tester we identify test scenarios**

- Test scenarios describes **ways to test functionality of an application/ build**

- Test Scenario **derived from User story**

- Test Scenario will defines "**What to test"**

- One Test Scenario will contains / includes **multiples test cases**

- Test Scenario always defines "**high level test cases"**

- Test Scenario always written in +**ve ways**

Test Case Design

- Test cases defines **steps to test functionality of an application/ build**
- Test cases **derived from Test Scenario**
- Test cases will defines "**How to test"**
- Test cases always defines "**Low level test cases"**
- Test cases always written in **+ve ways & -ve ways**
- **Types of Test Cases**
    1. **UI** test cases
    2. **Usability** test cases
    3. **Validation** test cases
    4. **Functionality** test cases
- We derive test cases from the test scenarios but we take help of **user stories & sprint backlog also**

Test cases execution & defect

- Having **review test cases**, & when we **get build** we perform "**sanity testing**" there
- If **build is stable**, we go for "**system & function testing**"
- As a tester will start the **Test cases execution**
- So, during test case execution, if we **found defect** we **assign** it to the **developer**
- If we **got the fix** then we perform "**retesting**" there & after it, if required we perform "**regression testing**" also
- After it, we have to **prepare test case execution report** & **defect report** & we have to **send** it to the **team lead**

Test summery report

- It is prepared by the **tester**
- In Test summery report will **contain**, for **every US**, how many test cases we have designed **(TCD),** how many test cases we have executed **(TCE)**, how many test cases are skipped **(TCS)** and how many **defects locked**
- We have to **send** it to the **team lead**

- **Ex- of Test summary report**

Build Status Report/ Test Report

Tester Name:	
Build No	1
Login Credential	
Browser	Chrome/IE/FF
Test Matrix	
Total no of test cases	**200**
No of test cases executed	**150**
No of test cases pending	**50**
No of test cases pass	**100**
No of test cases fail	**50**
No of test cases skipped	**10**
No of defect reported	**20**

Test closure report

- **It is prepared by team lead**
- Team lead **check all the reports** & **check all the process** are **correct or not** as per the **JIRA tool**
- Test closure report **provides** detailed analysis of **the type of testing carried out**, **process followed**, & the **status of defect found**
- To make the test closure report team lead use the **dash board tool**
- This report is in form of **graph**
- After this Team lead prepares test closure report & **sent it to the scrum master**

```
300
      200
           70
               20
                   10
Total  Pass  Fail  No run  Defect
```