



# Winnovate Challenge.

**Team Falcon** (Team 7)

**Account name:** T-Mobile USA

**Guiding Star name:** Archana K J

# AGENDA

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# PROBLEM STATEMENT

**Swiggy** is an Indian online food ordering and delivery platform. It elevate the quality of life for the urban consumer with unparalleled convenience.

Due to increase in demand for food delivery applications and its critical role in the ecosystem, rigorous E2E testing is essential to ensure that the application functions reliably, securely, and efficiently. This project will help to identify any potential bugs and report , in order to increase the efficiency of the application and have a user-friendly interface.



# STATEMENT OF PURPOSE

Testing is required to assess risks, improve user experience, and company reputation. This also helps to improve productivity and performance.

## Statement of need:

- To ensure end-to end functionality for order placement is working as designed
- Application testing to ensure new customer creation is successful
- To validate the customer login for existing customer
- Choose among the options for Food delivery and Instamart.



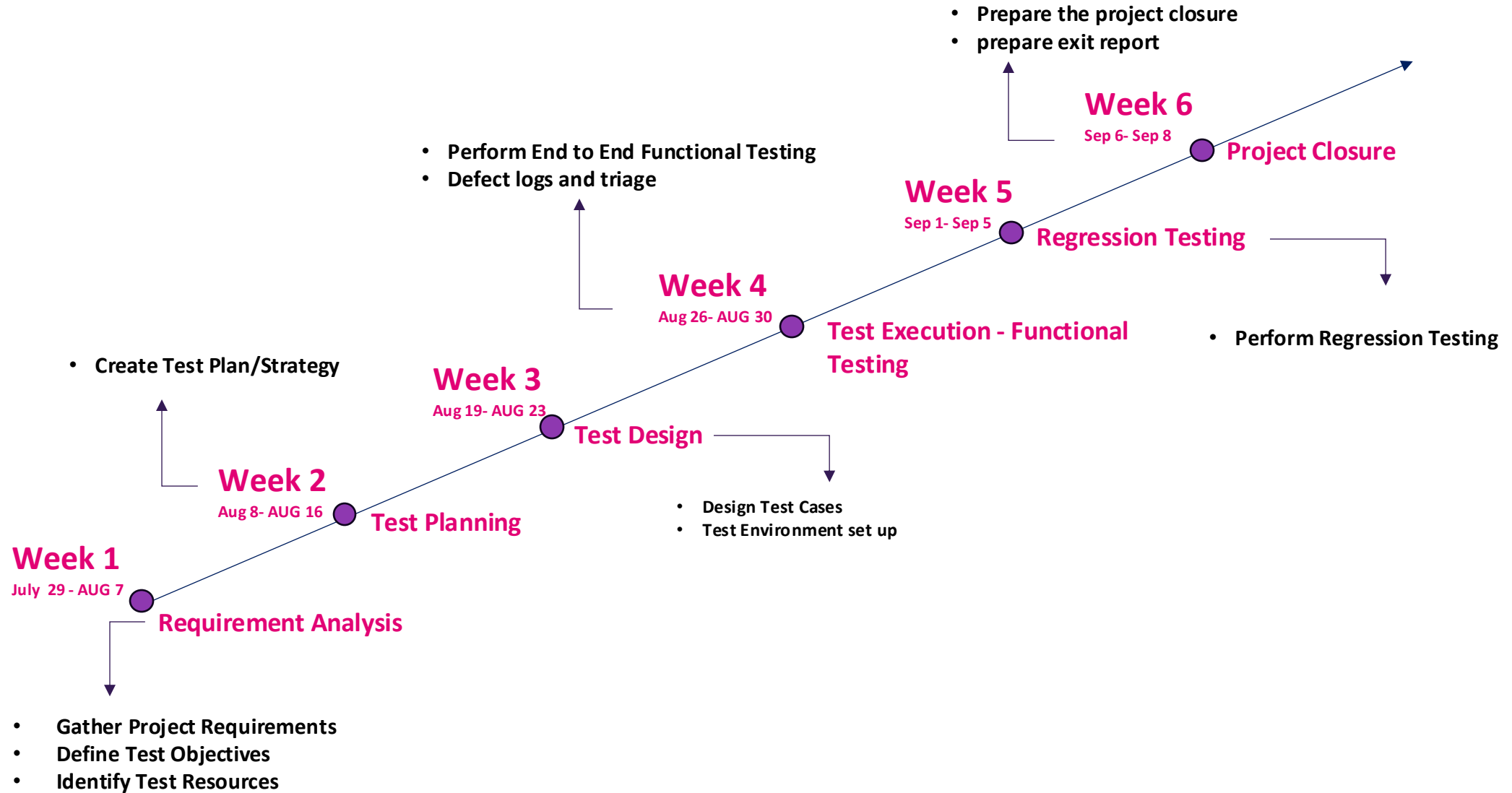
# TESTING SCOPE

- Ensure traceability matrix for all agreed requirements
- Develop detailed testing plan ( Regression testing, integration testing and End-to-End testing)
- Execution of the flows identified as part of requirements with valid data and verify the application functionality
- Ensure reporting of bug and triaging of defect
- Provide sign off after effective validation of the application

# ASSUMPTIONS

- Since the NGA do not have access to test management tools, all activities are tracked offline.
- TC Execution will be tracked in MS-Excel as Qtest Support is not available
- Database validation and API testing is out of scope as we do not have access to test.
- All artifact will be offline as the NGA do not have access to the required client tools.
- All testing is done on live online portal and no testing environment is used.

# TIMELINE

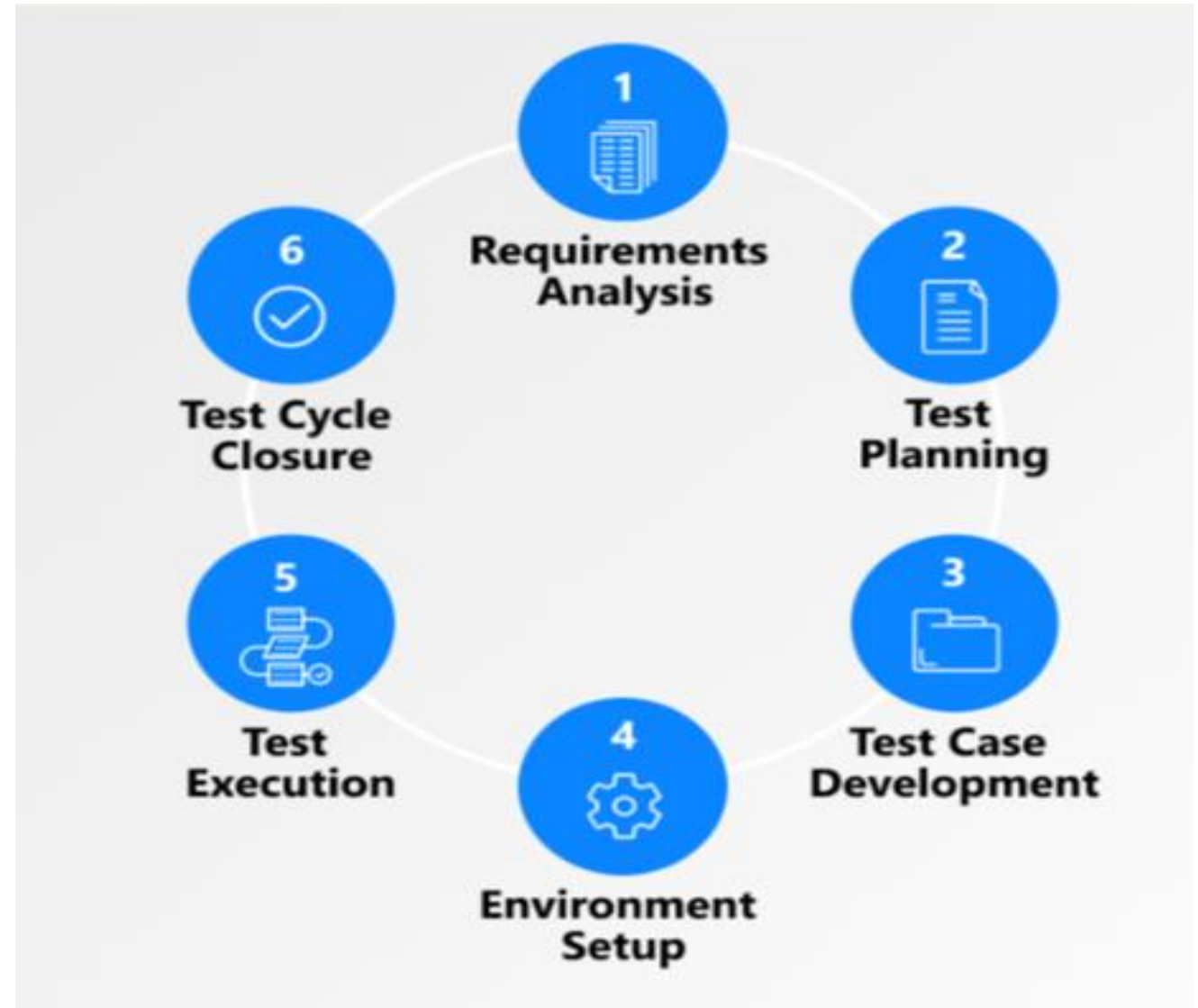


# DETAILED SOLUTION WITH MODULES

We have followed the STLC phases to overcome for the problem statement.

The Software Testing Life Cycle (STLC) is a systematic approach to testing a software application to ensure that it meets the requirements and is free of defects.

It is a process that follows a series of steps or phases, and each phase has specific objectives and deliverables. The STLC is used to ensure that the software is of high quality, reliable, and meets the needs of the end-users.





# REQUIREMENT ANALYSIS

## PURPOSE

The main aim of requirement analysis is to fully understand main objective of requirement that includes why it is needed, does it add value to product, will it be beneficial, does it increase quality of the project, does it will have any other effect



## APPROACH

- Reviewing the software requirements document (SRD) and other related documents
- Interviewing stakeholders to gather additional information
- Identifying any ambiguities or inconsistencies in the requirements
- Identifying any missing or incomplete requirements
- Identifying any potential risks or issues that may impact the testing process

**Requirement traceability Matrix:** RTM is a document that maps and traces user requirement with test cases.

[Click here to view the RTM Document](#)

# TEST PLANNING

PURPOSE	APPROACH
<p>The test plan serves as the blueprint that changes according to the progressions in the project and stays current at all times.</p> <p>It serves as a base for conducting testing activities and coordinating activities</p>	<ul style="list-style-type: none"><li>• Identifying the testing objectives and scope</li><li>• Developing a test strategy: selecting the testing methods and techniques that will be used</li><li>• Identifying the testing environment and resources needed</li><li>• Identifying the test cases that will be executed and the test data that will be used</li><li>• Estimating the time for testing</li><li>• Identifying the test deliverables and milestones</li><li>• Assigning roles and responsibilities to the testing team</li></ul>

**Test Plan sheet:** This is a well-written document that outlines the precise methodology and goals of the testing project. [Click here to view the Test Plan Document.](#)

# TEST ESTIMATION

Test estimation is crucial for effective project management.

## Key Benefits:

1. Resource allocation: accurate estimation helps allocate resources efficiently
2. Scheduling: Contributes in realistic project timelines
3. Predictability and Control: enables tracking of progress, provides benchmark for measuring efficiency.
4. Enhanced risk management
5. Enhanced decision making

## Methodology implemented: T-Shirt

T-shirt sizing is a technique used in Agile project management to estimate the size, complexity, or effort required for tasks or projects.

It uses different sizes of T-shirts (such as XS, S, M, L, XL, and XXL) as a symbolic representation for the scale of work

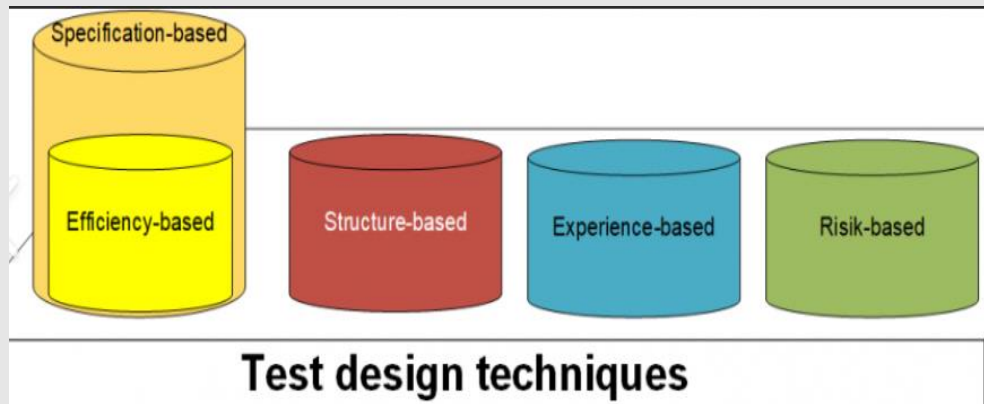
[Click here to view test estimation Document](#)



# TEST DESIGN

## PURPOSE

In this phase testing team notes down the detailed test cases and also prepares the required test data for the testing the Swiggy portal.



## APPROACH

### 1. High Level Design (HLD):

- Outline of the flow that is to be performed is written.

### 2. Low Level Design (LLD):

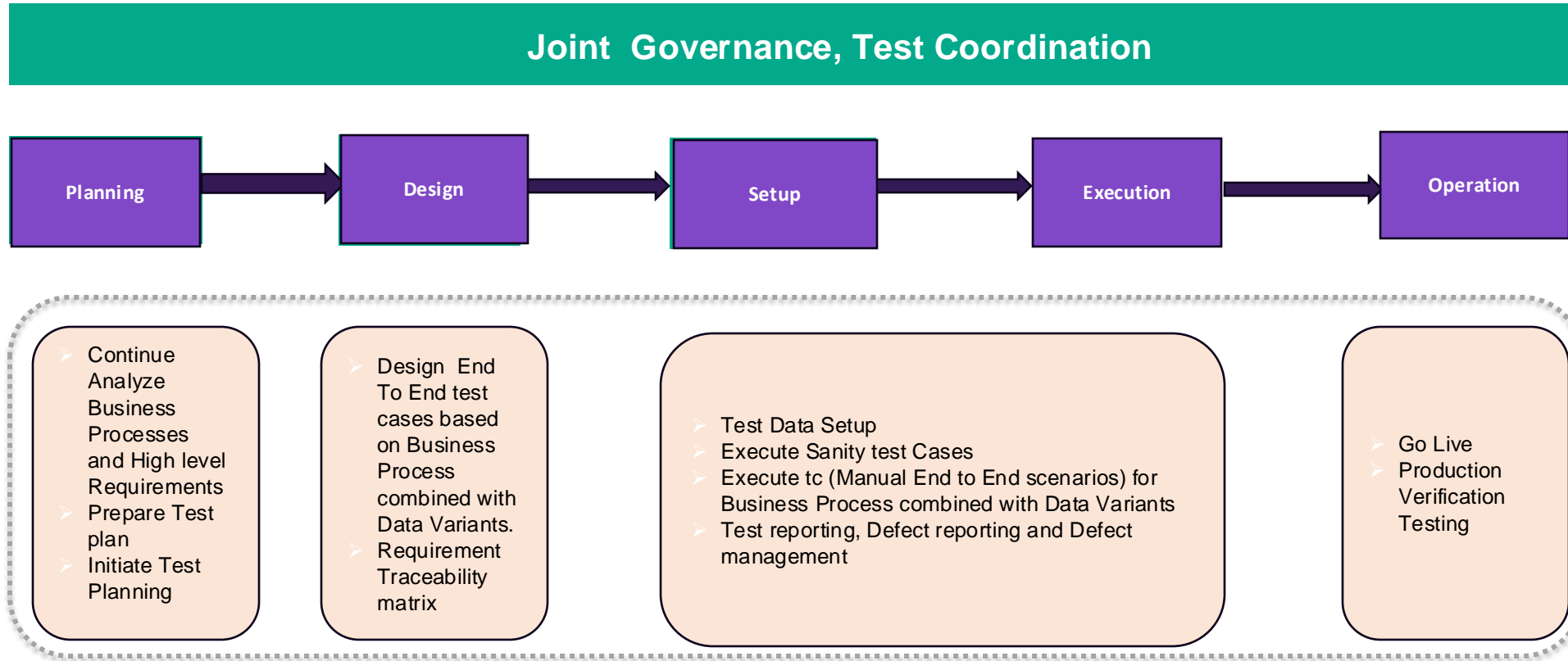
- Complete step by step instructions are documented for each testcase.

Identifying the expected results for each test case

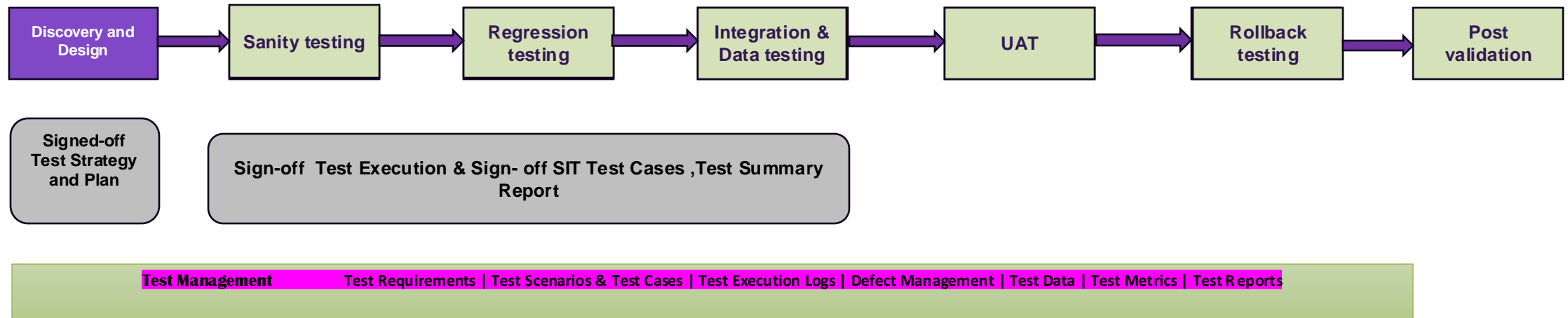
Reviewing and validating the test cases

[Click here to view test design file](#)

# TEST APPROACH



# TEST APPROACH-DETAILED



## Risk Based testing Approach:

Risk-based testing strategy that prioritizes the testing of software features based on their potential risks and impact on the system.

# TEST TOOL USED

Following tools are considered :

1. Test management tool: **Qtest**
2. Defect management tool: **Jira**

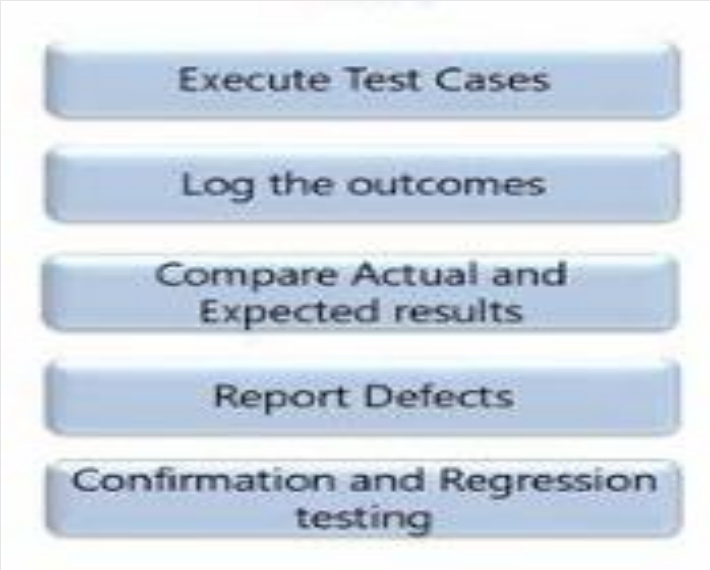
**Below are the guidelines followed for Qtest :**

1. All the steps in qtest must be executed for TC till the point where execution is completed.
2. All TCs Must be mapped to the requirements under test
3. Defects must be linked to Failed and Blocked TCs
4. Evidence for Front end and post validation (DB / API Validations) must be attached
5. Evidence : Make sure that Screenshots are arranged in an order and include the steps
6. Test Design: Ensure that each and every test step is in a separate row in qtest (all steps should not be present in a single row)
7. Test Design: Each step should have a serial number mentioned

**Below are the guidelines followed for Jira:**

1. Defect Description must include Summary of defect, Data used or order details, Accurate Steps to reproduce the defect, actual and expected result, note for Logs and Screenshots attached
2. CWTT/Splunk Logs should be added in defect comment through CWTT Log portal.
3. Valid RCA should be added for the defect by Dev Team
4. Evidence for defect occurrence and defect retest must be attached with 1 liner (steps) added

# TEST EXECUTION

PURPOSE	APPROACH
<p>Test Execution is the process of executing the testcases to check whether the developed code or functions or modules are providing the expected result as per the client requirement or business requirement.</p>  <pre>graph TD; A[Execute Test Cases] --&gt; B[Log the outcomes]; B --&gt; C[Compare Actual and Expected results]; C --&gt; D[Report Defects]; D --&gt; E[Confirmation and Regression testing];</pre>	<ul style="list-style-type: none"><li>• <b>Test execution</b></li><li>• <b>Defect logging</b></li><li>• <b>Test data preparation</b></li><li>• <b>Test environment setup</b></li><li>• <b>Test result analysis</b></li><li>• <b>Defect retesting</b></li><li>• <b>Test Reporting</b></li></ul>

[Click here to view Execution Report](#)



# TEST AUTOMATION

Tosca Automation, is a comprehensive test automation tool developed by Tricentis.

It's designed for end-to-end testing of various software applications, including web, mobile and enterprise application.

Tosca being licensed tool, this project implementation was not done with Tosca.

However, to get understanding on the tool and its process AS1 and AS2 certifications of Tosca is taken by the associates.

- To be able to implement automation in our project, Selenium automation tool was utilized. This way we been able to be automation capable and have got hand-on on the tool.
- Selenium is an open-source automation framework for web applications. It allows testers and developers to automate browser interactions and perform functional testing.

[Click here to view the selenium script run](#)



# DEFECT MANAGEMENT

## PURPOSE

The Defect Management Process is a systematic approach to identify, track, and resolve defects.


## APPROACH

- Defect is logged and each defect is assigned with priority based on the impact and risk.



[Click here to view Defect tracker](#)

# TEST CLOSURE

PURPOSE	APPROACH
Test closure is the final stage of the testing lifecycle where all testing-related activities are completed and documented. The main objective of the test closure stage is to ensure that all testing-related activities have been completed and that Swiggy application is ready for release.	<ul style="list-style-type: none"><li>• Test summary report</li><li>• Defect tracking</li><li>• Test closure report</li><li>• Knowledge transfer</li></ul> 

**Exit Report:** This Document contains all the activities captured as part of the testing process

[Click here to view Exit report](#)

# SUMMARY OF LEARNING

- ✓ With this project , we have comprehensive understanding of the structured process followed for testing projects.
- ✓ Gained knowledge on the standard practices followed during the various stages of the STLC.
- ✓ Enhanced testing skills such as Effective test planning, comprehensive test design, accurate test execution, defect management, and quality evaluation
- ✓ Better team collaboration and communication
- ✓ Gained functional knowledge needed for roles in software testing and quality assurance.

## **Achievements:**

- We have been able to work on automation scripting and have gained knowledge on 2 of the main automation tools i.e., Tosca and Selenium.

# TEAM MEMBERS AND ROLES

## Lead:

- **Syed Abrarul huq:**
  - Project oversight, test planning, coordination with team members, Designing and Execution phase

## Team Members:

- **Dhimesh Beesetty :**
  - Manages Defect Logging, Triage and executing Regression TestCases.
- **Shrinath Ramarao Pawar :**
  - Focus on execution and Negative Test Cases.
- **Sneha :**
  - Responsible for designing and executing E2E Functional.

# APPENDIX

Requirement Traceability Matrix (RTM)	<a href="#">RTM</a>
Test Estimation Document	<a href="#">Test Estimation</a>
Test Plan document	<a href="#">test plan doc</a>
TC design (HLD and LLD)	<a href="#">Test Design</a>
Execution Report	<a href="#">Execution Report</a>
Exit Report	<a href="#">Exit Report</a>
Selenium Automation recording	<a href="#">Selenium</a>
Defect Tracker	<a href="#">Defect Tracker</a>
Online reference links	<ul style="list-style-type: none"><li>•<a href="https://www.youtube.com/watch?v=iV3nYF4Xfil">https://www.youtube.com/watch?v=iV3nYF4Xfil</a></li><li>•<a href="https://www.youtube.com/watch?v=CmOaEaTxdvk">https://www.youtube.com/watch?v=CmOaEaTxdvk</a></li><li>•<a href="https://www.youtube.com/watch?v=BCQyVdem4jM">https://www.youtube.com/watch?v=BCQyVdem4jM</a></li></ul>



**Thank you.**