**Test plan for state Transition for a service that manages resources for user**

1. **Objective**
   1. **Purpose**

Purpose of the test plan is to create a state transition system that travels from State 1(s1) to State 5 (s5) with proper validations.

* 1. **Scope**

Scope includes Functional and non functional testing for smooth flow of the system.

1. **Requirements for tests**
   1. **Functional Testing**

Perform functional testing to validate all possible flows

* 1. **API Testing**

Perform api testing to validate state transition from S1 to S5

* 1. **Non functional testing**

Perform non functional testing such as GUI testing to get the user interface correct and some security testing to provide validations in the system

* 1. **Performance testing**

Performance testing is needed to verify system behavior for large set of data

1. **Test Strategy**

Perform functional testing for following validations

1. Check validations at 3 endpoints namely start , run and stop
2. Endpoint “Start” accepts user id
3. If user id is correct state should be moved from s0 to s1
4. If user id is incorrect, state should be moved from s0 to s5.
5. Endpoint “run” accepts resources and user id as parameter
6. If resource is valid, state should be moves from s1 to s2 and to s3
7. If resources are invalid, state should be moved from s1 to s5
8. Endpoint “stop” accepts resources and user id as parameter and checks if the state is s3.
9. If resource is valid, state should be moves from s3 to s4 and to s5
10. If resources are invalid, state should be moved from s3 to s5
11. **Resources (Tools used)**
    1. System resources

API testing tool such as postman

Test automation tool such as Selenium

Defect tracking tools such as JIRA

* 1. Roles

Test manager

Test designer

System tester

Automation tester

1. **Project Milestones (Schedules)**

Test planning

Test designing

Test data creation

Test case execution

Retesting and regression

1. **Deliverables**

Test plan

Test suit

Test data set

Test scripts

Test defect report

Test results

Test closure report

1. **Project Risks**

Undefined project scope

Insufficient resources

Tight timelines

Changing requirements

Natural disasters

1. **Exclusions**

This out of the Signed BRD

System configurations