

**Project Name - cQube**

## **Test Plan Document**

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**Revision Date :**

**Approved By :**

**Approval Date :**

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# 1 INTRODUCTION

## 1.1 PURPOSE OF THE DOCUMENT

This document describes the plan for testing the cQube Application. This Test Plan document supports the following objectives:

- Identify existing project information and the software that should be tested.

- List the recommended test requirements (high level).

- Recommend and describe the testing strategies to be employed.

- Identify the required resources and provide an estimate of the test efforts.

- List the deliverable elements of the test activities.

## 2 TEST ITEM

### 2.1 PROJECT DESCRIPTION

EkStep and Tibil Solutions are embarking on a project to create an analytic's product which can act as a Collaborative Command Center, 'cQube' for the education system. This product can be used for monitoring the education system in a state and on a broader scale for monitoring the schools across the state/ districts/ clusters/ blocks/ villages and schools. This document describes the product design and the specification requirements for the cQube product.

### 2.2 ITEMS TO BE TESTED

Item to Test	Test Description	Test Date	Responsibility
Nifi duplicate validation	Sanity Testing	12/06/2020	Devaraja
Nifi Process Grouping	Sanity Testing	15/06/2020	Devaraja
School Infrastructure map based report	Functional Testing	16/06/2020	Devaraja and Chetan
School Infrastructure scatter plot report	Functional Testing	19/06/2020	Devaraja and Chetan
Initialization stage implementation for infra report	Sanity Testing	22/06/2020	Devaraja
School infrastructure metrics Test	Sanity Testing	18/06/2020	Devaraja and Chetan
CRC Performance Report	Functional Testing	19/06/2020	Devaraja and Chetan
Admin login Separation	Functional Testing	22/06/2020	Devaraja and Chetan
Admin configuration screen	Functional testing	25/06/2020	Devaraja and Chetan

## **2.3 TEST APPROACH(S)**

This project is using an agile approach, with weekly iterations. At the end of each week the requirements identified for that iteration will be delivered to the team and will be tested.

Exploratory testing will play a large part of the testing as the team has never used

This type of tool will be learning as they go, Tests for planned functionality will be created and added as we get iterations of the product.

Nifi duplication validation – Manual

Nifi process grouping – Manual

Initialization implementation stages of infra reports – Manual

School infrastructure Report – Manual + automation

CRC Performance – Automation

Admin login Separation – Automation

Grafana dashboard - Manual

Admin configuration screens – Automation

Load Testing – jmeter

### **2.3.1 Functional Testing :**

- 1 Smoke Testing
- 2 Functionality Testing
- 3 Regression Testing
- 4 User Acceptance Testing

### **2.3.2 Non-Functional Testing:**

1. Performance Testing
  - 1.1 Load testing

## Functional Testing Descriptions:

### 1.Smoke Testing

**Participants :** Testing team

**Methodology :** Smoke testing can be done by using automation scripts by using selenium python.

Smoke testing can be done on login, student attendance report, crc report, semester report, school infrastructure map and chart report, admin screens.

### 2 Functional Testing

**Participants :** Testing team

**Methodology :** Functional testing can done by using automation scripts by using selenium python .In this each and every component are checking deeply, independently, rigorously of admin screen, crc report, school infrastructure map report and chart report.

### 3. Regression Testing

**Participants :** Testing Team

**Methodology :** Regression testing can be done by using automation scripts by using selenium python.

Regression testing can be done on login, student attendance report, crc report, semester report, school infrastructure map and chart report.

login → Dashboard → Student Attendance report

login → Dashboard → Semester report

login -> Dashboard -> CRC Report

login → Dashboard → school infrastructure – map based report

login → Dashboard → school infrastructure – Chart report

login -> Dashboard -> CRC Report.

### 4 . User Acceptance Testing(UAT):

**Participants :** End users

**Methodology :** Users or client – This could be either someone who is buying a product (in the case of commercial software) or someone who has had a software custom-built through a software service provider or the end-user if the software is made available to them ahead of the time and when their feedback is sought out.

## Non Functional Testing Descriptions:

### 1.Performance Testing

#### 1.1 Load testing :

**Participants** : Testing Team

**Methodology** : This can be done by using jmeter tool and generating the test results and by using the URL of the cQube application

### 2.3 TEST PASS / FAIL CRITERIA

\* All the major functionality of the application should work as intended and the pass percentage of test cases should be more than 95% and there should not be any critical bugs\*

### 2.4 TEST ENTRY / EXIT CRITERIA

#### 2.5.1 Entry Criteria

- The requirement document should be available.
- Complete understanding of the application flow is required.
- The Test Plan Document should be ready.

#### 2.5.2 Exit Criteria

- Test Cases should be written and reviewed.
- Test Data should be identified and ready.
- Test automation script should be ready if applicable.

### 2.5 TEST DELIVERABLE

- *Test plan document*
- *.Test cases.*
- *Test Case Execution Report.*

## 2.6 TEST SUSPENSION / RESUMPTION CRITERIA

- If any of the major functionality are not functional or system experiences login issues then testing should be suspended.

## 2.7 STAFFING / TRAINING NEEDS

For this application ,there is no needed to staffing or training

## 3 RISK AND MITIGATION

### 3.1 TEST RISKS / ISSUES

#### Assumptions

This section lists assumptions that are made specific to this project.

1. Delivery of the product is in format that the test team can check it into CVS.

### 1.1 RISKS

The following risks have been identified and the appropriate action identified to mitigate their impact on the project. The impact (or severity) of the risk is based on how the project would be affected if the risk was triggered. The trigger is what milestone or event would cause the risk to become an issue to be dealt with.

	Risk	Impact	Trigger	Mitigation Plan
	Scope Creep –as testers become more familiar with the tool, they will want more functionality.	High	Delays in implementation date	Each iteration, functionality will be closely monitored. Priorities will be set and discussed by stakeholders. Since the driver is functionality and not time, it may be necessary to push the date out.
	Changes to the functionality may negate the tests already written and we may lose test cases already written.	High – to schedule and quality	Loss of all test cases	Export data prior to any upgrade, massage as necessary and re-import after upgrade.
	Weekly delivery is not possible because the developer works off site.	Medium	Product did not get delivered on schedule	

## 4 TEST ENVIRONMENT AND INFRASTRUCTURE

### 4.1 REQUIRED INFRASTRUCTURE

For this we need separate Testing environment as QA sandbox for both manual and automation

### 4.2 AVAILABILITY PLAN

Planned for QA sandbox to be used for Automation

## 5 ROLES AND RESPONSIBILITIES

### 5.1 ROLES AND ASSIGNED RESPONSIBILITIES

Role	Responsibility
Test plan	It should be prepared by Test Lead as well as Testers
Test Cases	It should be prepared and executed by testers.
Test Execution Report	It should be prepared and executed by testers.



## 6 TEST SCHEDULE

### 6.1 MILESTONES AND SCHEDULE

Milestone	Deliverable	Start Date	End Date
1	Nifi duplication validation	12/06/2020	16/07/2020
2	Nifi Process Grouping	17/06/2020	16/07/2020
3	Graffana dashboard	30/06/2020	16/07/2020
4	Admin screens functional	8/07/2020	9/07/2020
5	Release Upgradation test	16/07/2020	16/07/2020
6	Functional Testing	08/07/2020	09/07/2020
7	Regression Testing	13/07/2020	14/07/2020
8	Smoke Testing	16/07/2020	16/07/2020
9	Load Testing	14/07/2020	14/07/2020

## APPROVAL

Signature:		Date:	
Print Name:			
Title:			
Role:			

Signature:		Date:	
Print Name:			
Title:			
Role:			

Signature:		Date:	
Print Name:			
Title:			
Role:			

## Appendix A: References

The following table summarizes the documents referenced in this document.

Document Name and Version	Description	Location
cQube 1.1	Technical Document	<a href="https://drive.google.com/drive/folders/1E6d9MjsE_76niVb2kzBT4Cq8CtFCTmta">https://drive.google.com/drive/folders/1E6d9MjsE_76niVb2kzBT4Cq8CtFCTmta</a>

\*\*\*\*\*THE END\*\*\*\*\*