

# **MIST Smart Voting System (MSVS)**

## **System Development Document**

Group-02

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**Version: (Final)**

**Date: (25/01/2021)**

## Contents

<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>Platforms Used to Develop the System</b>	<b>3</b>
<b>3</b>	<b>Snaps of UI</b>	<b>4</b>
<b>4</b>	<b>Scenarios Based on the Use Cases Using UI's</b>	<b>5</b>
4.1	Dataflow Diagram for scenario 1 . . . . .	6
4.2	Dataflow Diagram for scenario 2 . . . . .	8

## **1 Introduction**

This document specifies the platform that is used to develop front end and back end of our system, some User Interface snaps and 2 scenarios based on the use cases using UI's.

## **2 Platforms Used to Develop the System**

- We have used Android Studio as the platform to develop our system.
- We have used Java and XML to develop the front end of our system.
- We have used Firebase Database to develop the back end of our system.

### 3 Snaps of UI

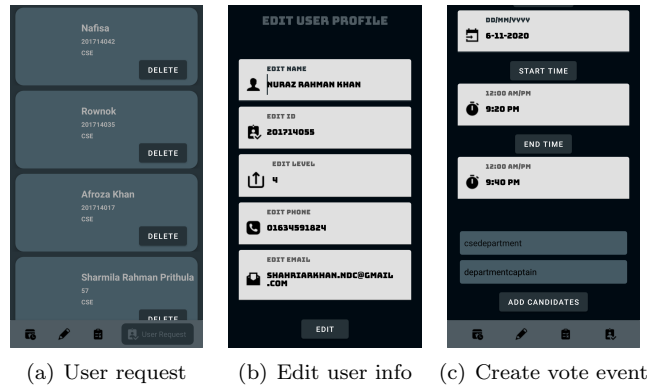


Figure 1: Screenshots of the admin module.

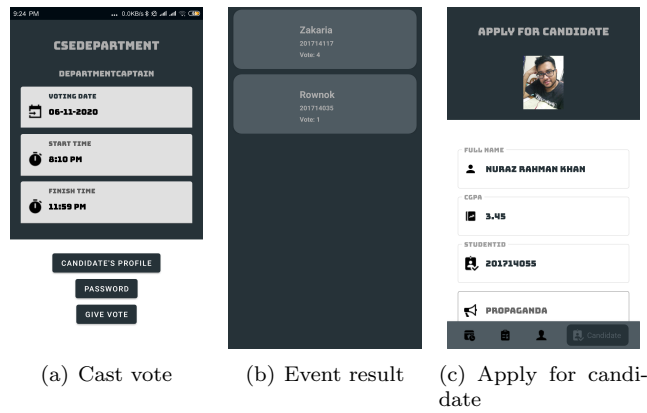


Figure 2: Screenshots of the user module.

## **4 Scenarios Based on the Use Cases Using UI's**

### **Scenario 1 for admin module**

#### **Initial assumption**

The admin has logged in the system by barcode verification and has checked the system.

#### **Normal flow of Events in the Scenario**

Admin logs in the system and can create different polls for different kinds of election. For example MIST captain selection, CR selection etc. He observes the profiles of the candidates and the voters. He sees the updates of the ongoing voting and generates report on that process. He checks the feedbacks and reviews and also sees the FAQs from the users. From the reviews and feedbacks he creates poll for general opinions. From the result of the poll of these feedbacks he creates a report and then submits to the authority.

#### **What can go wrong?**

QR may not be available for the admin in the database. If any person gives multiple votes then error message will be shown. For any undesirable issue he can cancel the nomination of the candidates. He denied the access of the voters to vote after the allocated time for voting.

#### **Other activities**

Personal information of the voters and candidates will be secured.

#### **System state on completion**

He publishes the final result of the voting event.

#### 4.1 Dataflow Diagram for scenario 1

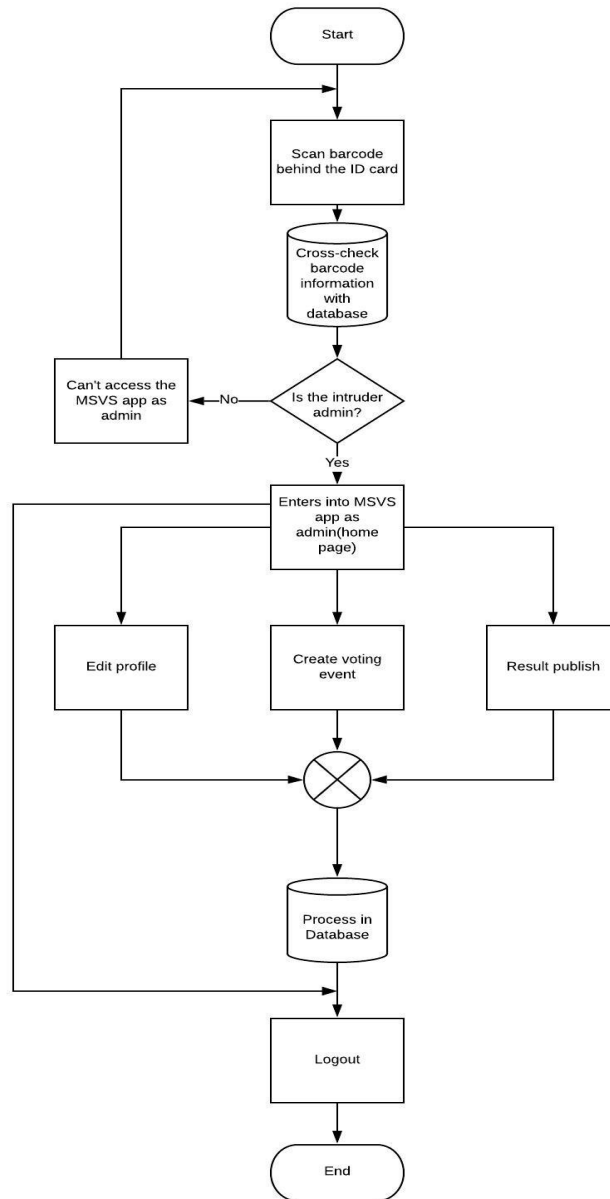


Figure 3: MSVS Admin Dataflow of Scenario 1

## **Scenario 2 for voter module**

### **Initial assumption**

Every user is registered with proper biometric information. Every student has individual QR scan code.

### **Normal flow of Events in the Scenario**

A voter logs in the app using QR code. He selects a voting event. Then he watches every candidate's profile of that voting event. This gives him a clear idea of the candidates. Then he gives vote where his vote is verified by fingerprint scanning. He is updated about the current situation of which candidate is winning. After finishing of the voting event, he gets to know the result within no time. Then he exits from the voting application.

### **What can go wrong**

While verifying before giving vote, the fingerprint sensor may not work properly. Database server can be crashed and not working properly. User's QR code may not work properly because of blurred camera of the user.

### **Other activities**

Record may be consulted, but not edited by other voters while information is being entered.

### **System state on completion**

After completion of the vote count, an overall result will be shown. This result will be added in database. Voting event will be discarded from database after fixed time.

## 4.2 Dataflow Diagram for scenario 2

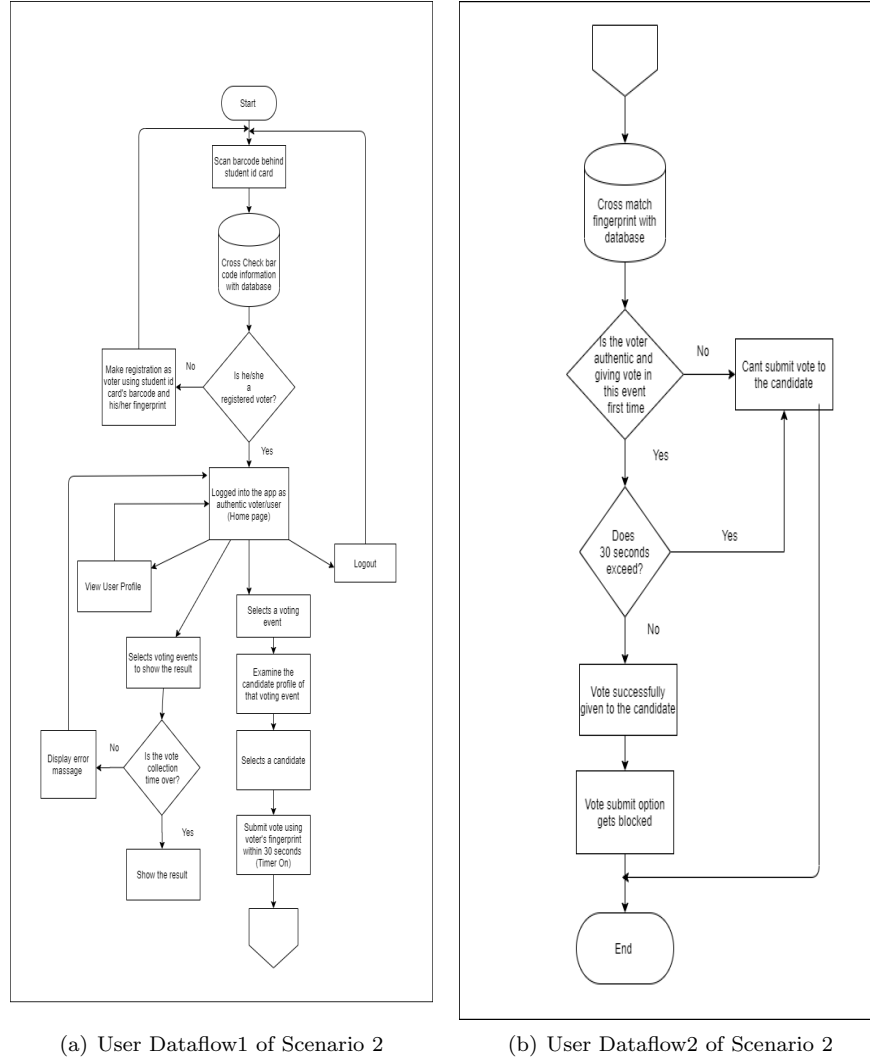


Figure 4: MSVS User Dataflow of Scenario 2