

# **BRAC University Entrance System**

## **Software Design Documents**

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# **1. INTRODUCTION**

## **1.1. Purpose**

The purpose of this software is to maintain security system of the University by stopping intruders from entering the campus and to visibly identify the students and staff while entering the campus for security issues.

## **1.2. Scope**

Provide a description and scope of the software and explain the goals, objectives and benefits of your project. This will provide the basis for the brief description of your product.

## **1.3. Overview**

This document provides design and characteristics of our university entrance system how it is built and how will it work in the fields.

# **2. SYSTEM OVERVIEW**

In many occasions it has been noted that many outsiders enter the University campus by showing false ID card or borrowing a friend's ID. Here the software will work by scanning the face of the person who wishes to enter the campus and display his or her basic information on the monitor in front of the security to verify the student's legitimacy. The software, as soon as a student stands within 2 meters of the entrance gate will direct specified scanners to scan the facial structure and the retina of the student through bio-matrix and display the student's ID

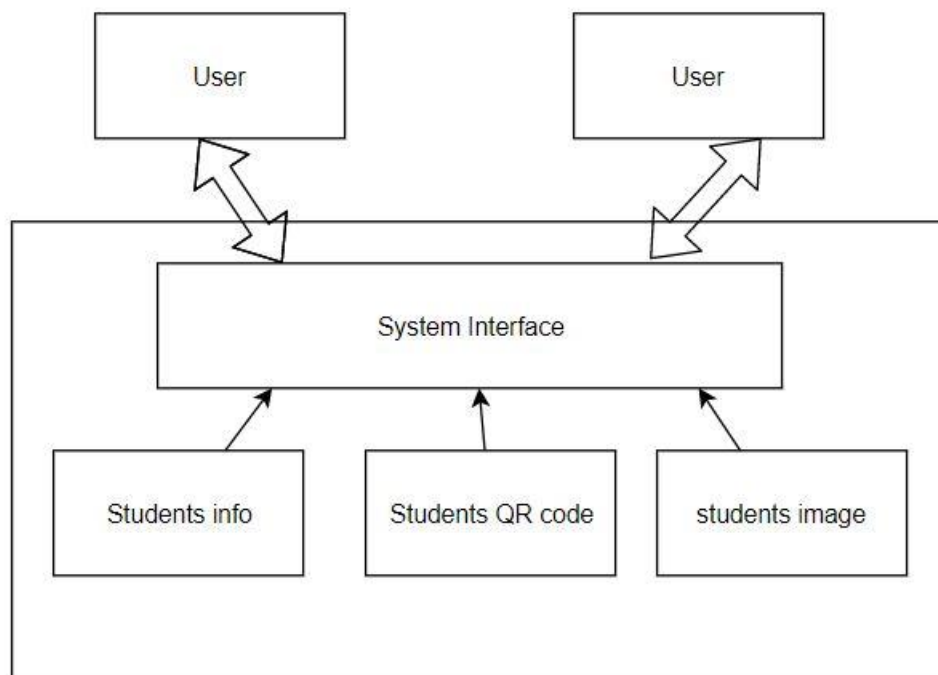
and its validity if they are a registered student, which will let the student access the campus, and all the information of the students would be fed to the software from the university's database for it to cross match it with their ID. All students must have their faces scanned by the university authority and put it on the data-base. All staff must maintain the same procedure.

## 3. SYSTEM ARCHITECTURE

### 3.1. Architectural design

#### 3.1.1. System Design

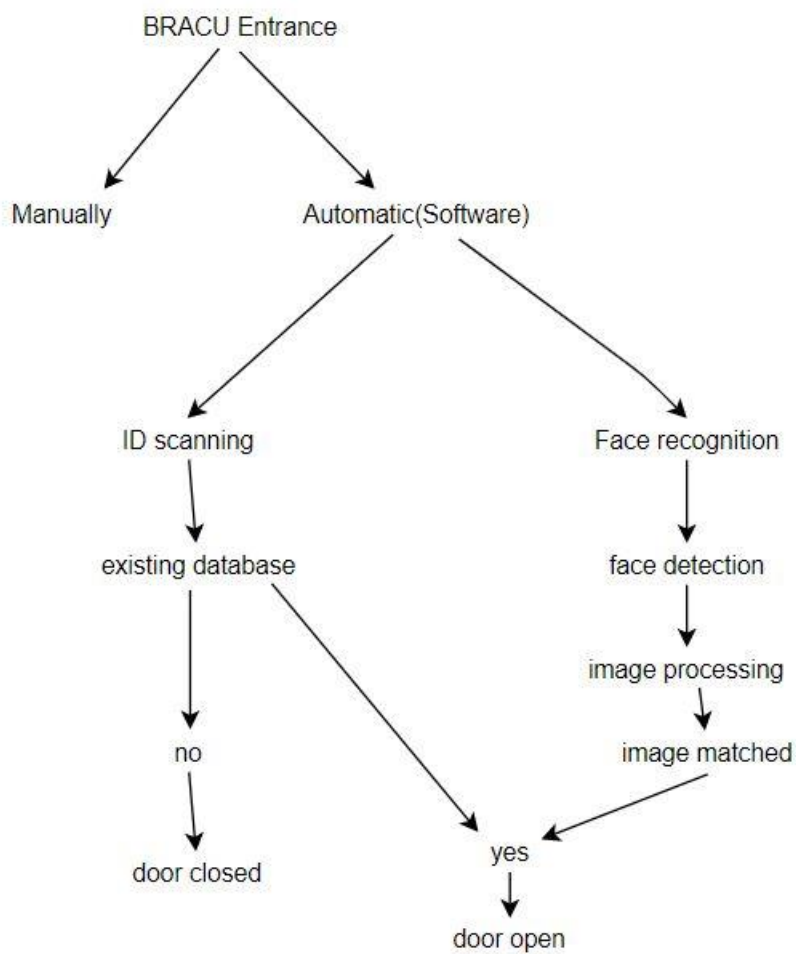
The block diagram below is the presentation of the BRAC university system design.



## 3.2. Decomposition Description

### 3.2.1. Functional decomposition tree

In the below figure it is shown that how this system will work if a student want to insert in the building. The whole system is presented step by step which shows how a student's info will processed to get permission and if is invalid then what will happen if any stranger enters.

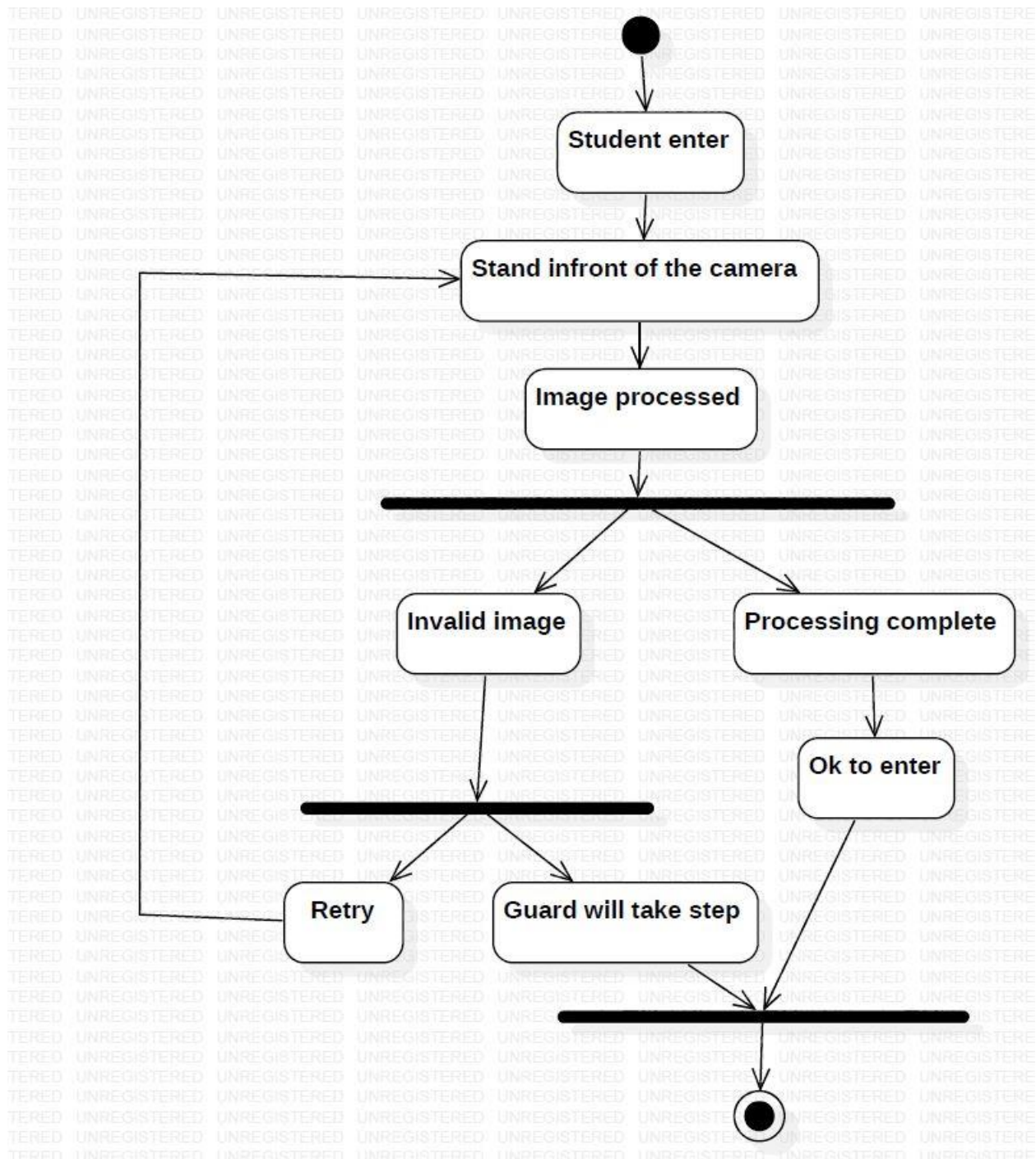


## **4. DATA DESIGN**

### **4.1. Data Description**

The students' information will be transmitted in forms of QR codes which later will help to save in the database with precise and proper information and make it simple to cross-check.

## 5. COMPONENT DESIGN



## **6. HUMAN INTERFACE DESIGN**

### **6.1. Overview of User Interface**

Here the user will be a security officer, he/she will verify the information displayed on the screen and see if the software allows anyone wishes to enter the campus access to the campus and make his life easier, the software will do all the work for them by recognizing the student or staff.

## **7. REQUIREMENTS MATRIX**

Provide a cross-reference that traces components and data structures to the requirements in your SRS document.

Use a tabular format to show which system components satisfy each of the functional requirements from the SRS. Refer to the functional requirements by the numbers/codes that you gave them in the SRS.