SOFTWARE REQUIREMENT SPECIFICATION (SRS)
ON
STUDENT REGISTRATION SYSTEM

1.0 PROBLEM DEFINITION

The student registration system is a software, in which the faculty, student and administrator can interact on the university platform to perform their designated tasks.

1.1 The admin can login with his/her credentials and register students, faculties on the university database.
1.2 The student can login with his/her username (E-mail) and password (student id) and can select up-to 30 credits worth of courses.
1.3 The faculty can login with his/her username (E-mail) and password (faculty id) and from there the faculty can select the courses that they want to teach and from which year, if the course has students enrolled in it, they are good to go.
1.4 The changes made by the faculties and students are updated on the university database.

2.0 SYSTEM REQUIREMENT SPECIFICATION

2.1 INTRODUCTION

2.1.1 Purpose

2.1.1.1 The purpose of this SRS is to describe the requirements involved in developing a Student Registration system.

2.1.1.2 The intended audience are the students, faculties and administrator, who wants to enroll, teach the courses respectively whereas the admin can register new faculties and students in the university database.

2.1.2 Scope

2.1.2.1 The product is titled Student Registration System.

2.1.2.2 The product will perform the following tasks

2.1.2.2.1 Login on the basis of student, faculty or admin.
2.1.2.2.2 Register new students and faculties by the ADMIN.

2.1.2.2.3 Students can enroll in their interested courses (max 31 credits).

2.1.2.2.4 Faculties can opt the courses that they want to teach (if the students are enrolled in that particular course).

2.1.3 Definitions, Acronyms and Abbreviations

2.1.3.1 DBMS – Database Management System.

2.1.4 Overview

2.1.4.1 The SRS contains an analysis of the requirements necessary to help easy design.

2.1.4.2 The overall description provides interface requirements for the Student Registration System, product perspective, hardware interfaces, software interfaces, communication interface, memory constraints, product functions, user characteristics and other constraints.

2.1.4.3 Succeeding pages illustrate the characteristics of typical naïve users accessing the system along with legal and functional constraints enforced that affect Student Registration System in any fashion.

2.2 THE OVERALL DESCRIPTION

2.2.1 Product perspective

2.2.1.1 Hardware interfaces

2.2.1.1.1 Hard disk: The database connectivity requires a hardware configuration that is on-line. This makes it necessary to have a fast database system running on high rpm hard disk permitting complete data redundancy and back-up systems to support the primary goal of reliability.

2.2.1.1.2 The system must interface with the standard output devise, keyboard and mouse to interact with this software.

2.2.1.2 Software interfaces

2.2.1.2.1 Back End: MY SQL

2.2.1.2.2 Front End: Microsoft Visual Studio

2.2.1.3 Memory Constraints

2.2.1.3.1 No specific constraints on memory.

2.2.1.4 Operations

2.2.1.4.1 The software allows four modes of operations

2.2.1.4.1.1 LOGIN on the basis of student, faculty or admin.

2.2.1.4.1.2 Register new students and faculties by the ADMIN.

2.2.1.4.1.3 Students can enroll in their interested courses (max 31 credits).

2.2.1.4.1.4 Faculties can opt the courses that they want to teach (if the students are enrolled in that particular course).

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2.2.2 Product Functions

2.2.2.1.1 Check the authenticity of the user.

2.2.2.1.2 After successful login.

2.2.2.1.3 Students, opt for their courses (max credits 31).

2.2.2.1.4 Faculties, opt for the courses that they want to teach.

2.2.3 User characteristics

2.2.3.1 The intended users of this software need not have specific knowledge as to what is the internal operation of the system. Thus the end user is at a high level of abstraction that allows easier, faster operation and reduces the knowledge requirement of end user

2.2.3.2 The Product is absolutely user friendly, so the intended users can be the naïve users.

2.2.3.3 The product does not expect the user to possess any technical background. Any person who knows to use the mouse and the keyboard can successfully use this product.

2.2.4 Constraints

2.2.4.1 The user has a unique username and password, the admin has right to change his/her password but the faculty and student can't do the same and has to rely on the admin.

2.3 SPECIFIC REQUIREMENTS

2.3.1 Logical Database Requirements

2.3.1.1 The system should contain databases that include all necessary information for the product to function according to the requirements. These include relations such as user details and course details.

2.3.1.2 The user details refer to the information such as name, student/faculty id, courses they are enrolled in, courses they want to teach, registering the user on the basis of their user type.

2.3.1.3 The course details refer to the information such as the course name, student name, student it, course code and year.

2.4 FRONT – END DESCRIPTION

The student registration system is automated registration system where the user can be registered on the university database. By entering the username and the password the software, the user can enroll for the courses or teach the course based on their user type. And by entering the username and password (student/faculty id), which is unique, the user can login to the university database.

2.5 BACK – END DESCRIPTION

The student registration system consists of four tables. One contains the student details such as the name, student id that is the password, email, course and year. The faculty table contains faculty id, name, email. The subject table consists of student name, student id, course, year and subject code. The admin table consists the admin username and password.

2.6 DATA STRUCTURES

2.6.1. ADMIN DETAILS

FIELD NAME	TYPE	CONSTRAINTS
ID	NUMBER	NOT NULL
USERNAME	VARCHAR (20)	NOT NULL
PASSWORD	VARCHAR (20)	NOT NULL

2.6.2. STUDENT DETAILS

FIELD NAME	TYPE	CONSTRAINTS
STUDENTNO	INT (11)	NOT NULL
NAME	TEXT	NOT NULL
EMAIL	VARCHAR (40)	NOT NULL
COURSE	TEXT	NOT NULL
YEAR	VARCHAR (20)	NOT NULL

2.6.3. FACULTY DETAILS

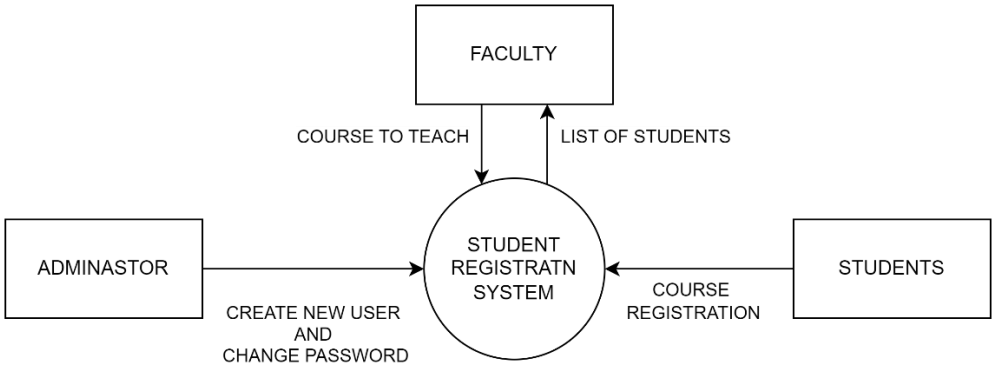
FIELD NAME	TYPE	CONSTRAINTS
EMPLOYEENUM	INT (11)	NOT NULL
NAME	TEXT	NOT NULL
EMAIL	VARCHAR (30)	NOT NULL

2.6.4. SUBJECT DETAILS

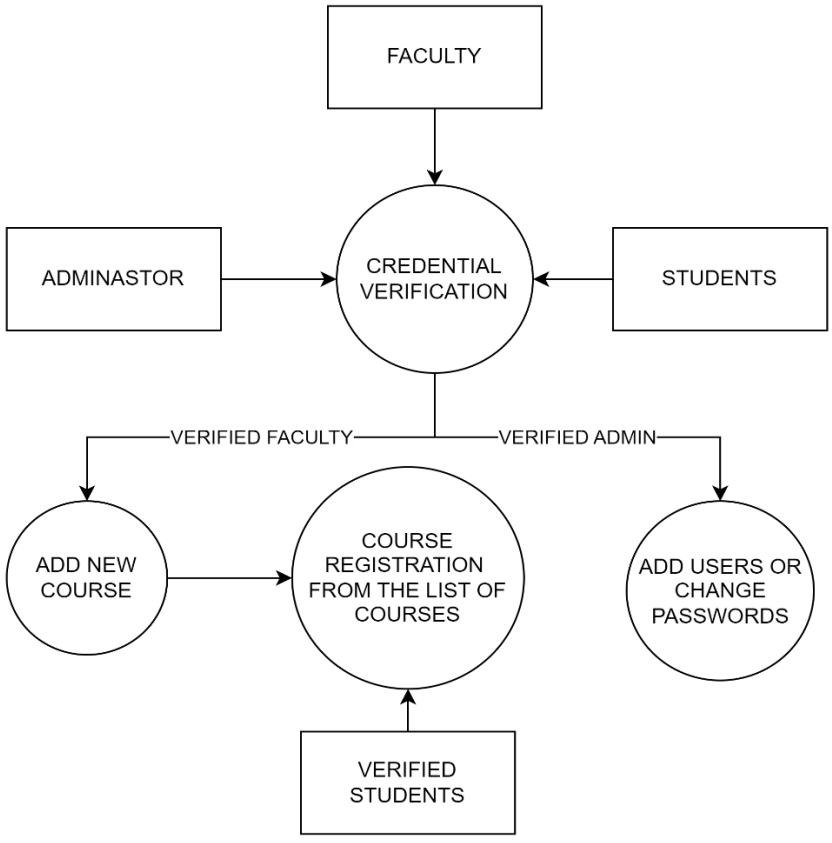
FIELD NAME	TYPE	CONSTRAINTS
STUDNUM	INT (11)	NOT NULL
STUDNAME	TEXT	NOT NULL
COURSE	TEXT	NOT NULL
YEAR	VARCHAR (20)	NOT NULL
SUBJECTCODE	VARCHAR (20)	NOT NULL

2.7 DATA FLOW DIAGRAM

LEVEL-0



LEVEL-1



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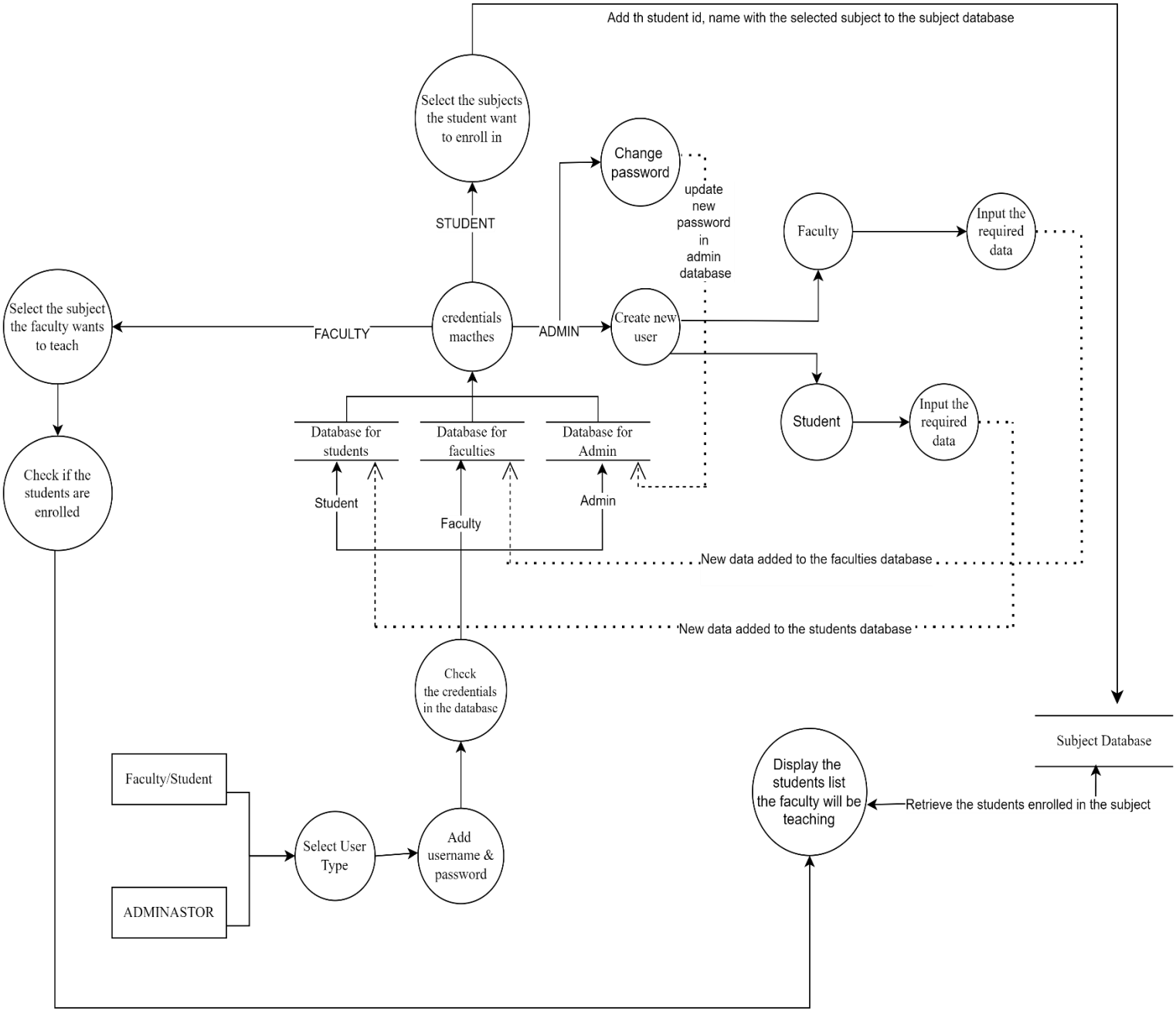
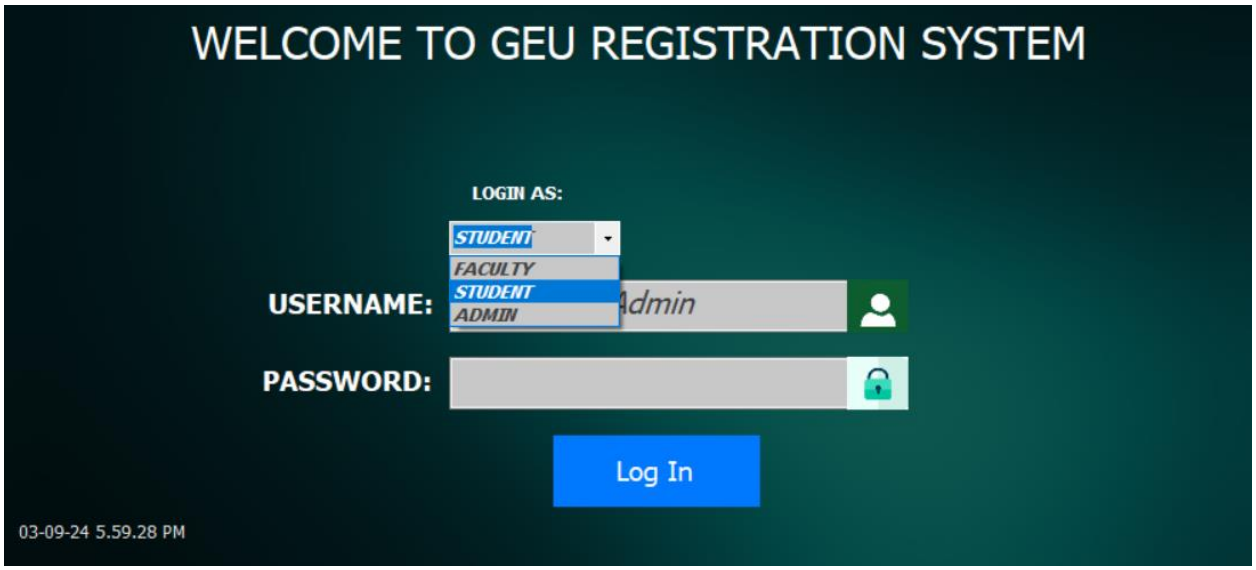

Add th student id, name with the selected subject to the subject database
Select the subjects the student want to enroll in
Change password
update new password in admin database
STUDENT
Faculty
Input the required data
Select the subject the faculty wants to teach
FACULTY
credentials macthes
ADMIN
Create new user
Student
Input the required data
Database for students
Database for faculties
Database for Admin
Check if the students are enrolled
Student
Faculty
Admin
New data added to the faculties database
New data added to the students database
Check the credentials in the database
Subject Database
Faculty/Student
Display the students list the faculty will be teaching
Retrieve the students enrolled in the subject
Select User Type
Add username & password
ADMINASTOR

3.0 <u>TESTING:</u>

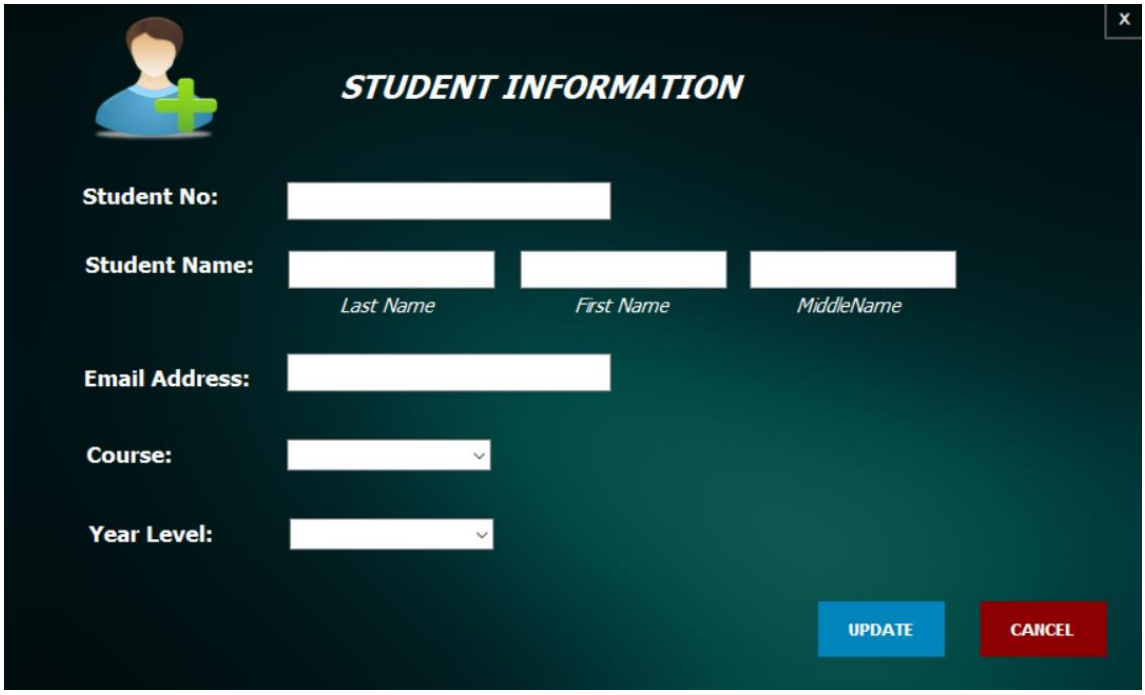
FORM NAME	INPUT	EXPECTED OUTPUT	ACTUAL OUTPUT	STATUS
LOGIN FORM	USER TYPE USERNAME PASSWORD	IF PASSWORD IS CORRECT, LOGIN.	MEMBER AUTHENTICATED FOR FUTURE OPTIONS.	PASS
STUDENT REGISTRATION NAME	STUDENT ID NAME EMAIL COURSE YEAR	CREATE NEW STUDENT ACCOUNT	NEW ACCOUNT WAS CREATED	PASS
FACULTY REGISTRATION FORM	FACULTY ID NAME EMAIL	CREATE NEW FACULTY ACCOUNT	NEW ACCOUT WAS CREATED	PASS
CHANGE ADMIN PASSWORD FORM	OLD PASSWORD AND NEW PASSWORD	CHANGE THE PASSWORD TO THE NEW PASSWORD	PASSWORD WAS CHANGED	PASS
STUDENT COURSE REGISTRATION FORM	MENU OPTION	STUDENT GETS ENROLLED IN THE CHOSEN COURSES	STUDENT WAS ENROLLED IN THE CHOSEN COURSES	PASS
FACUTLY COURSE SELECTION FORM	MENU OPTION	IF STUDENTS ARE ENROLLED THE COURSE, THE FACULTY GETS THE STUDENT LIST.	FACULTY RECEIVED THE NUMBER OF STUDENTS ALONG WITH THE STUDENT LIST.	PASS

4.0 SAMPLE FORMS

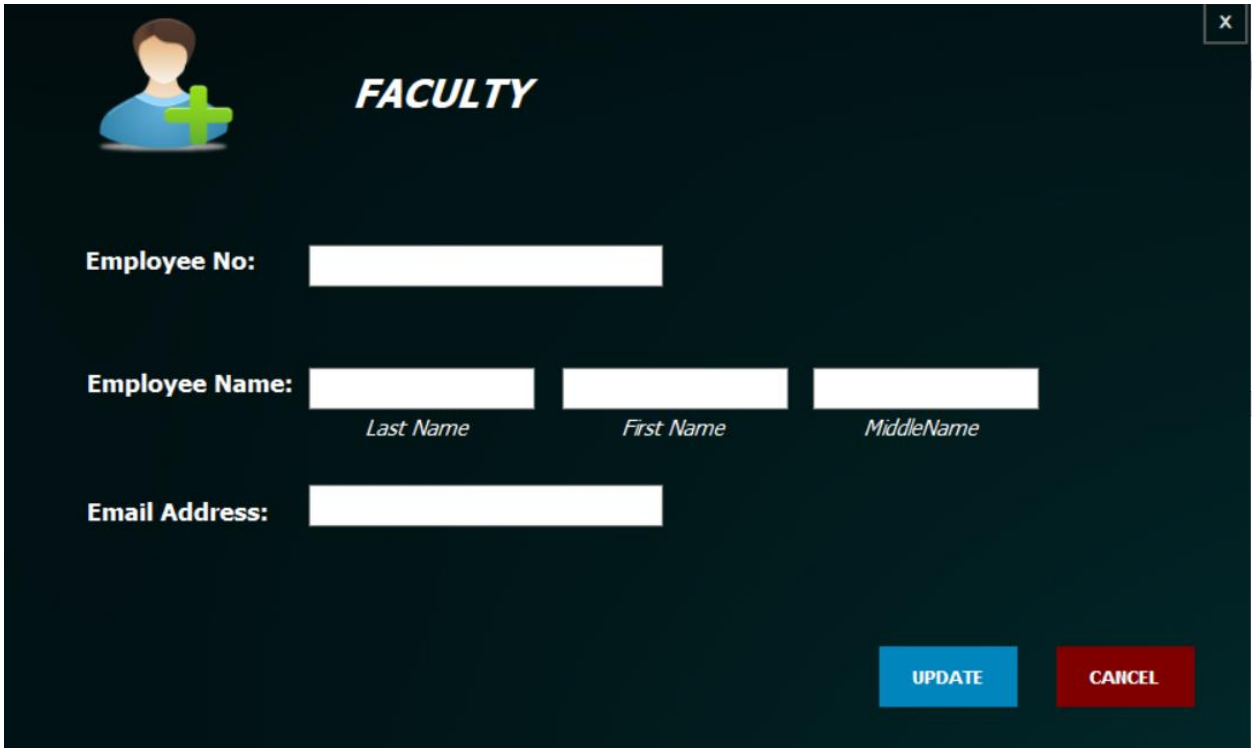


LOGIN FORM

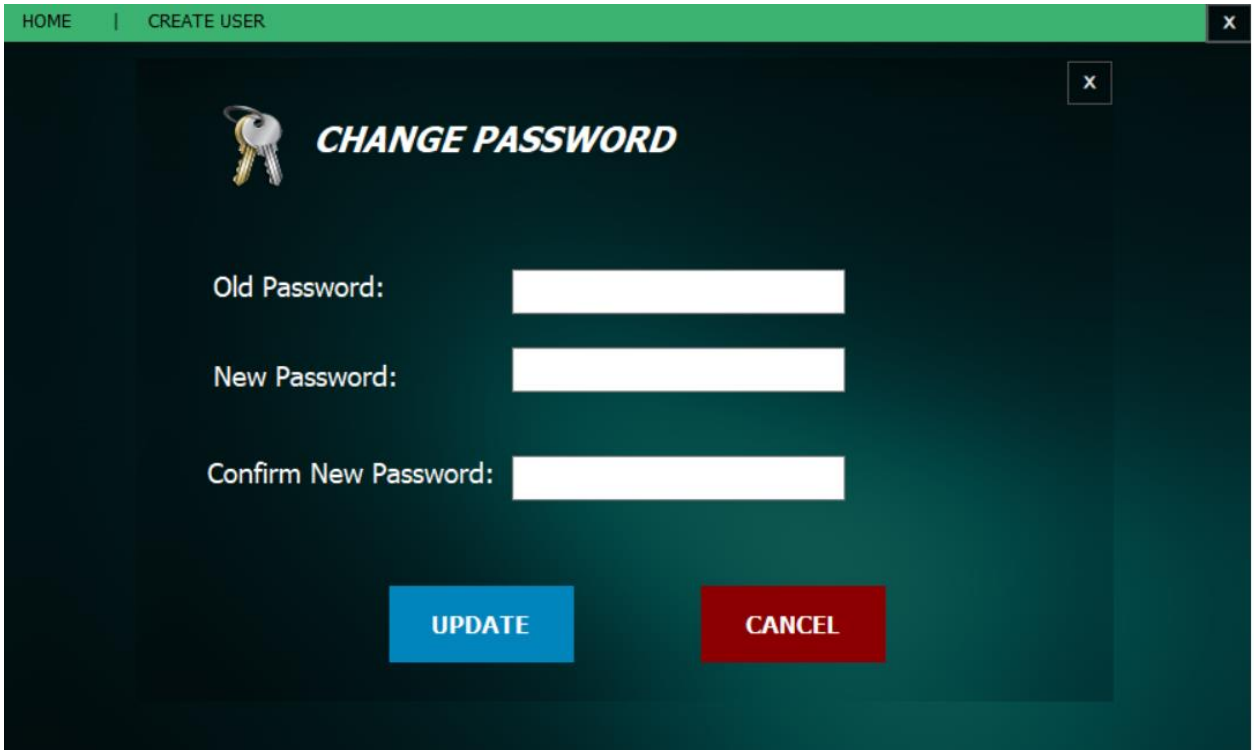
STUDENT REGISTRATION FORM



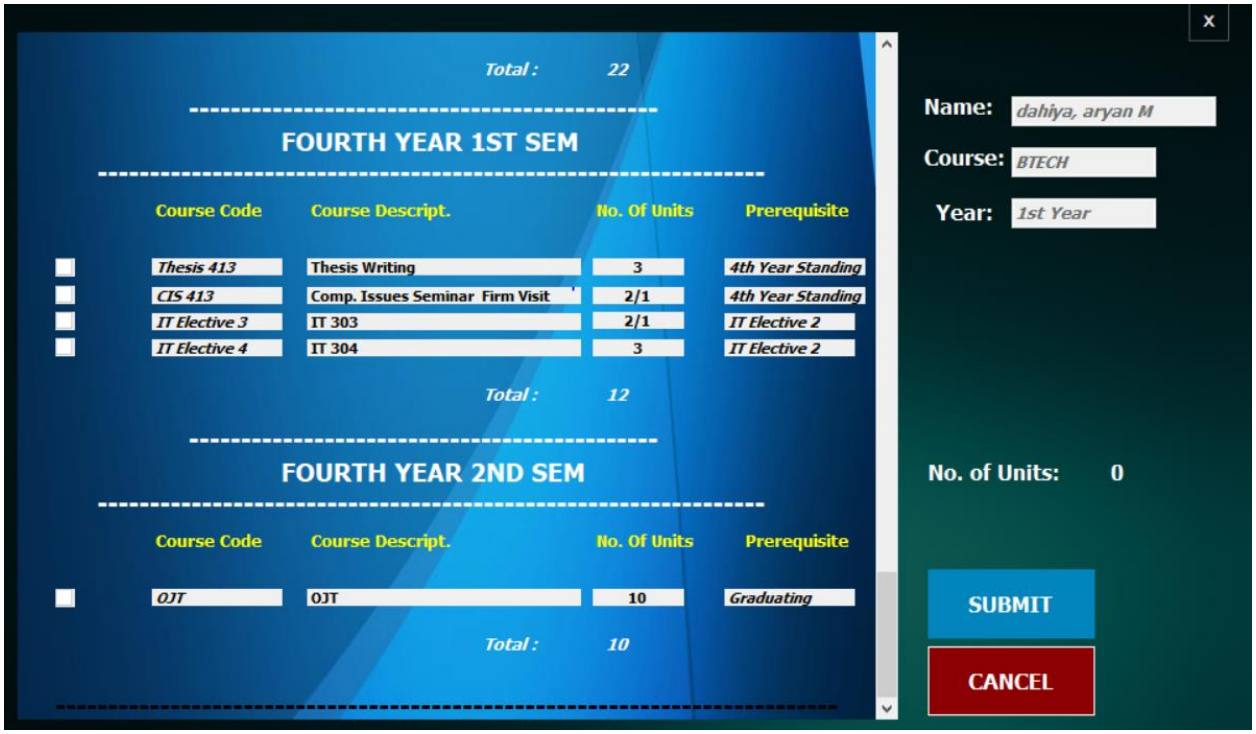
FACULTY REGISTRATION FORM



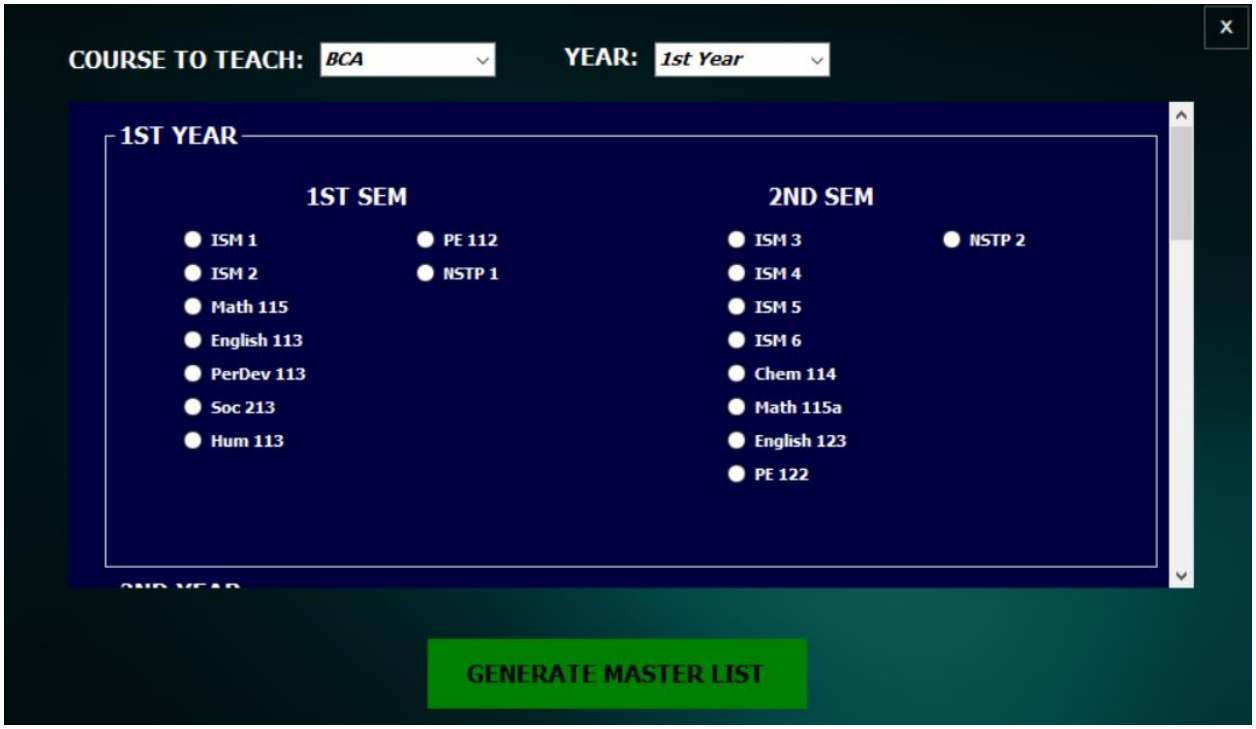
CHANGE ADMIN PASSWORD FORM



STUDENT COURSE REGISTRATION FORM



FACUTLY COURSE SELECTION FORM



4.0 RESULT:

Thus, the STUDENT REGISTRATION SYSTEM was implemented using the specified front end and back-end tools.