Project Report

Programming III (SCS2104)

K L I M Dissanayaka

16000404

Course Enrollment System

For

NSBM Green University

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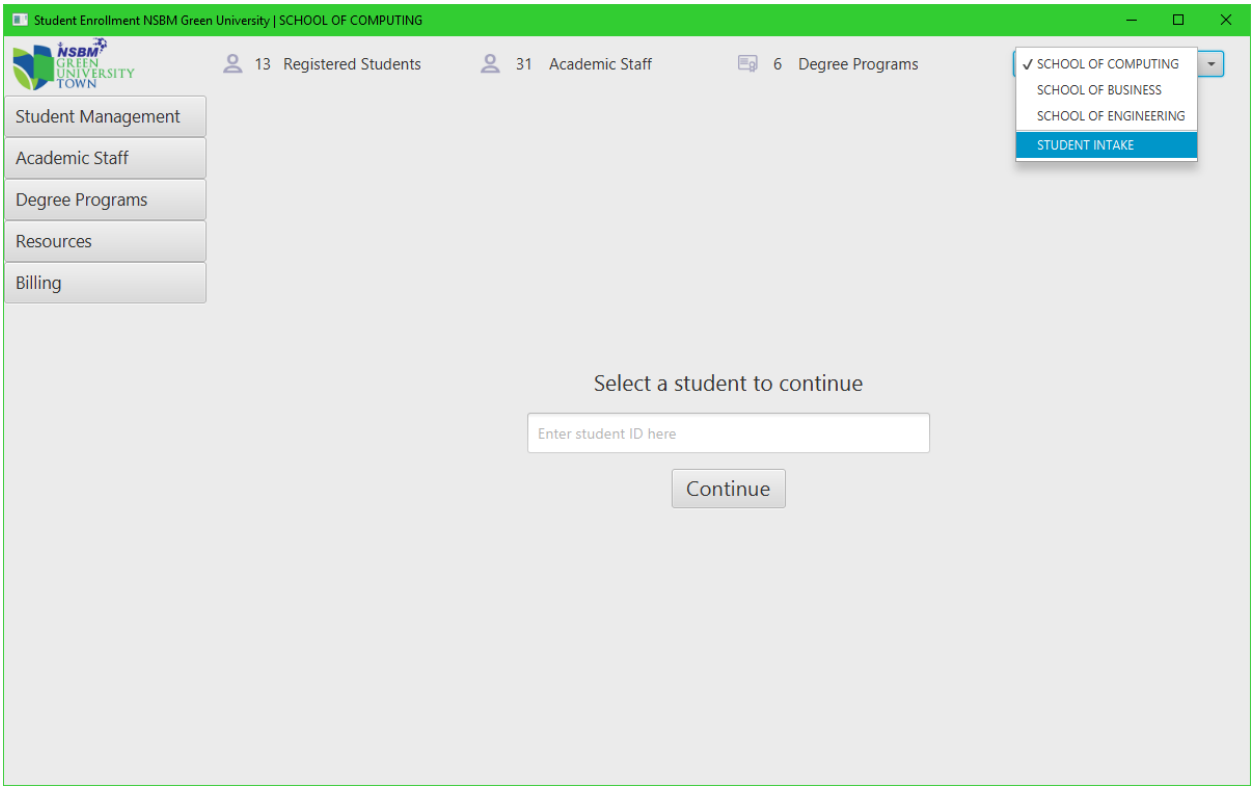
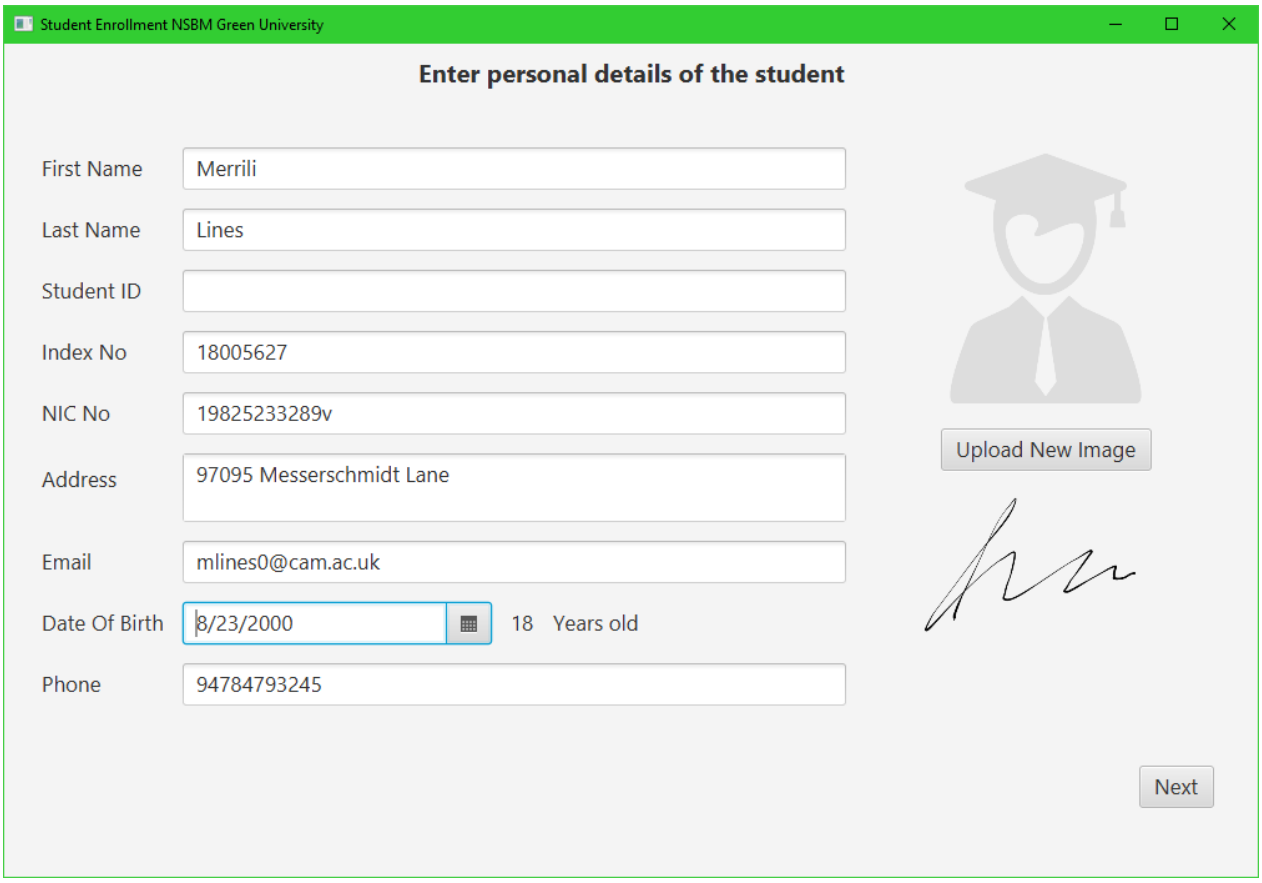
User Interface

1. Student Intake

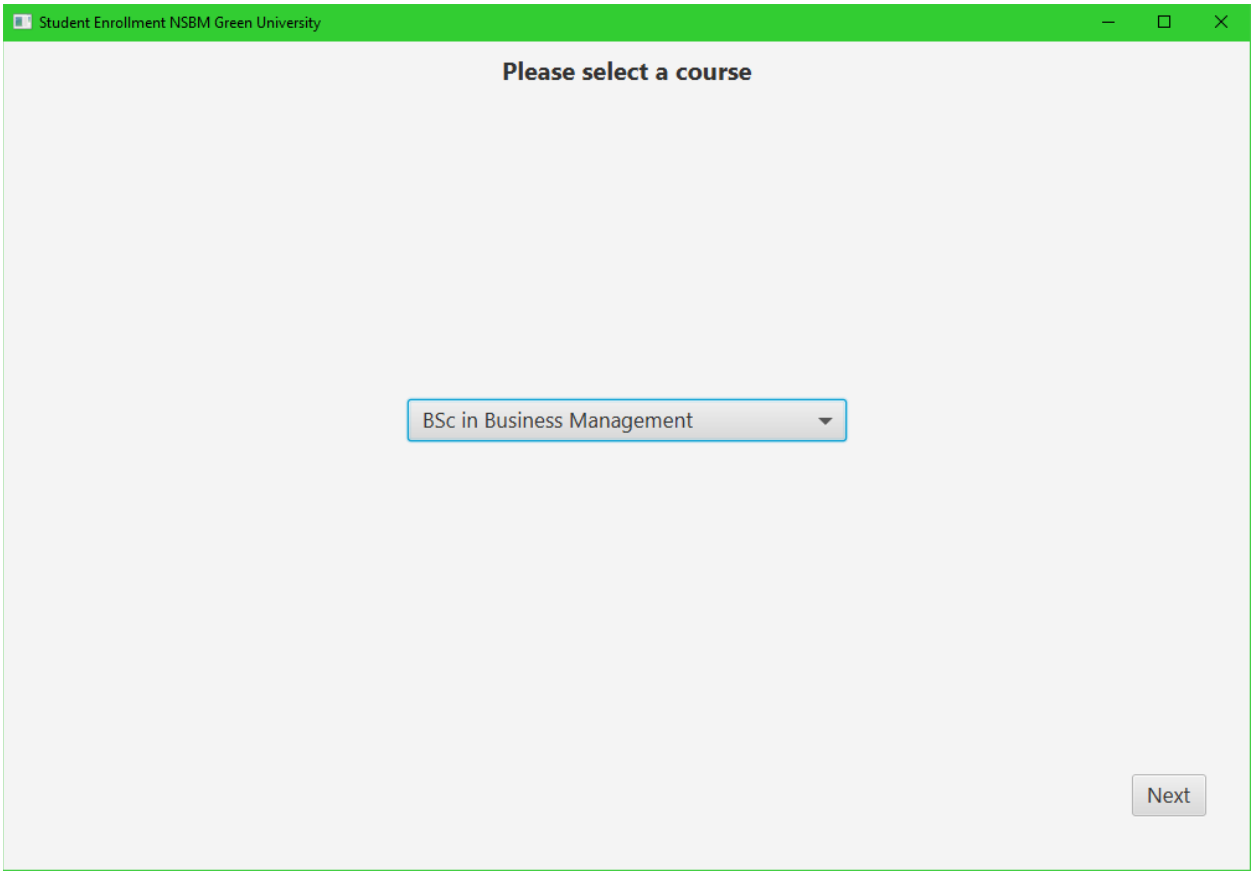
Once the program is opened, student intake process can be started by clicking drop down menu on right top corner and then selecting Student Intake



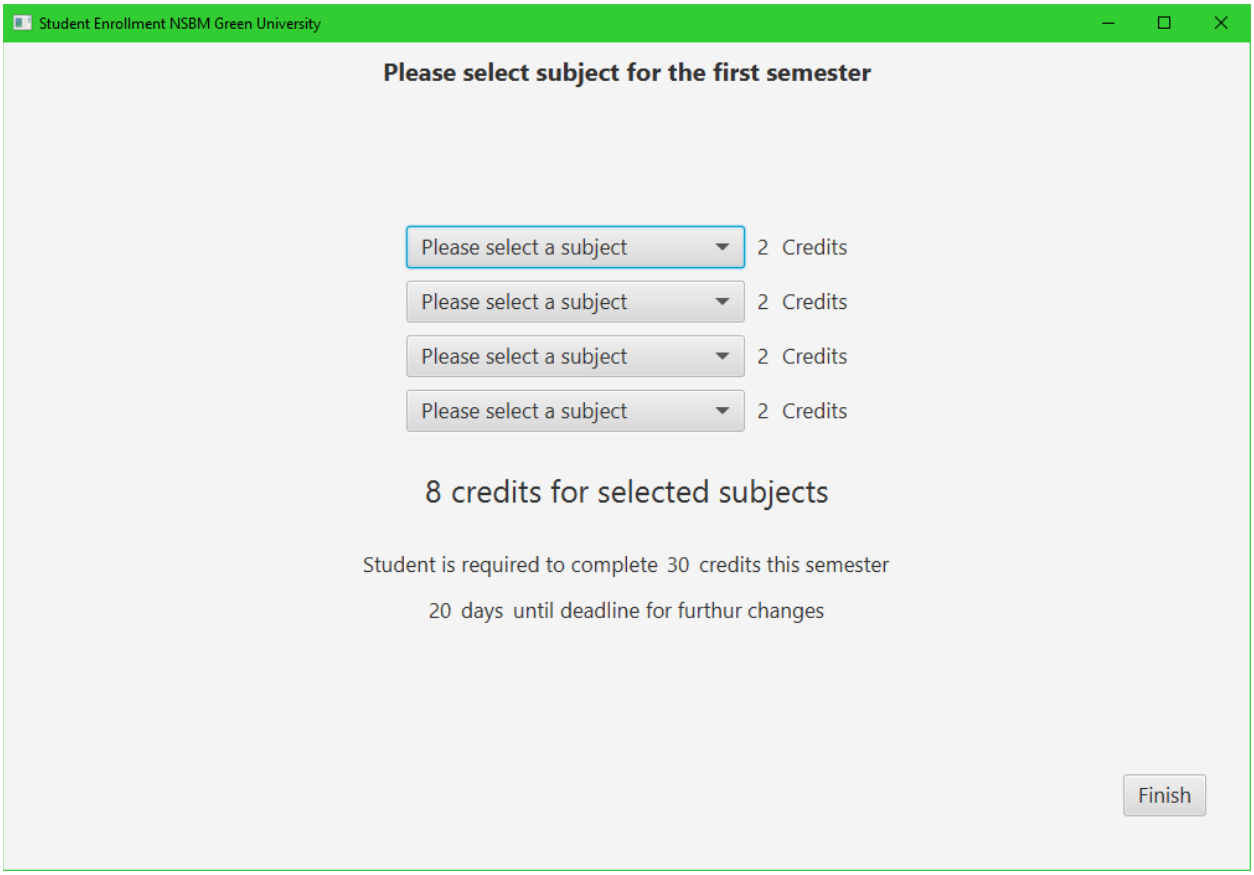
Once it is done the following dialog box appears,



The form should be filled and when the next button is clicked following screen appears



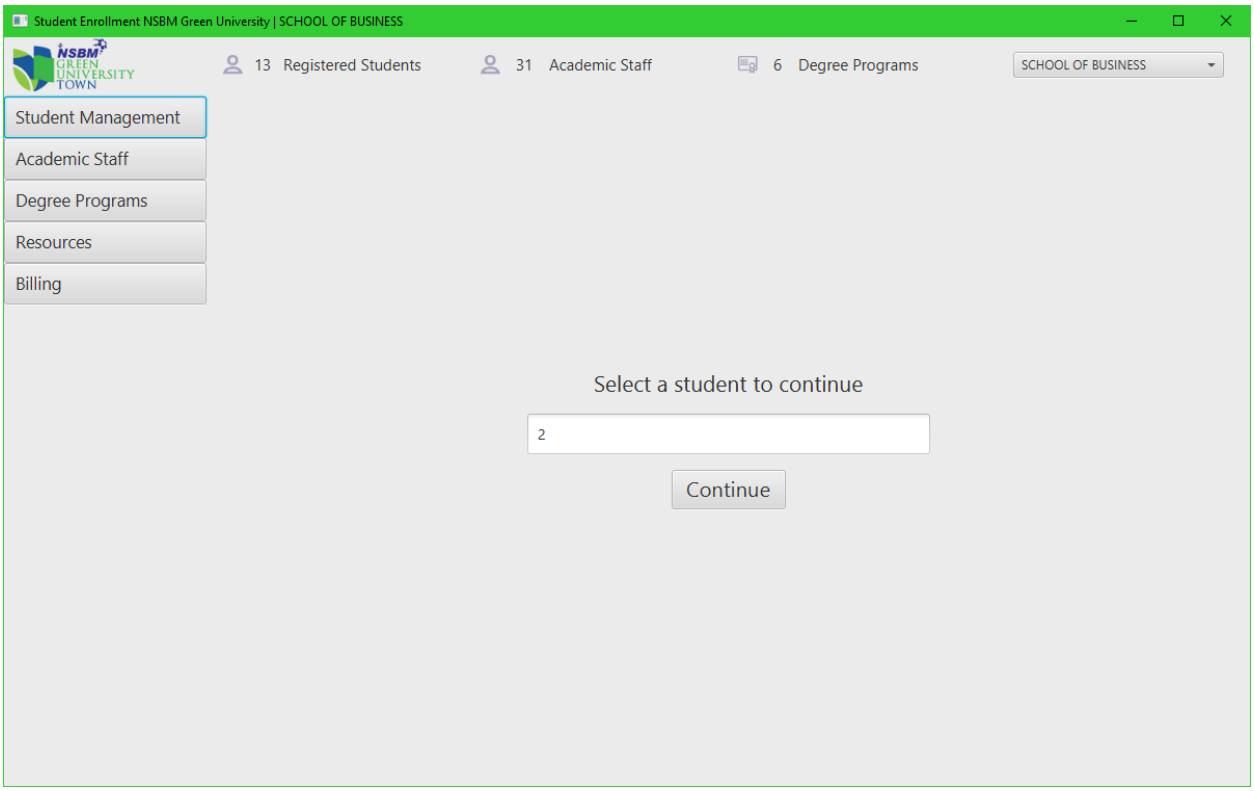
The course can be selected and proceed.



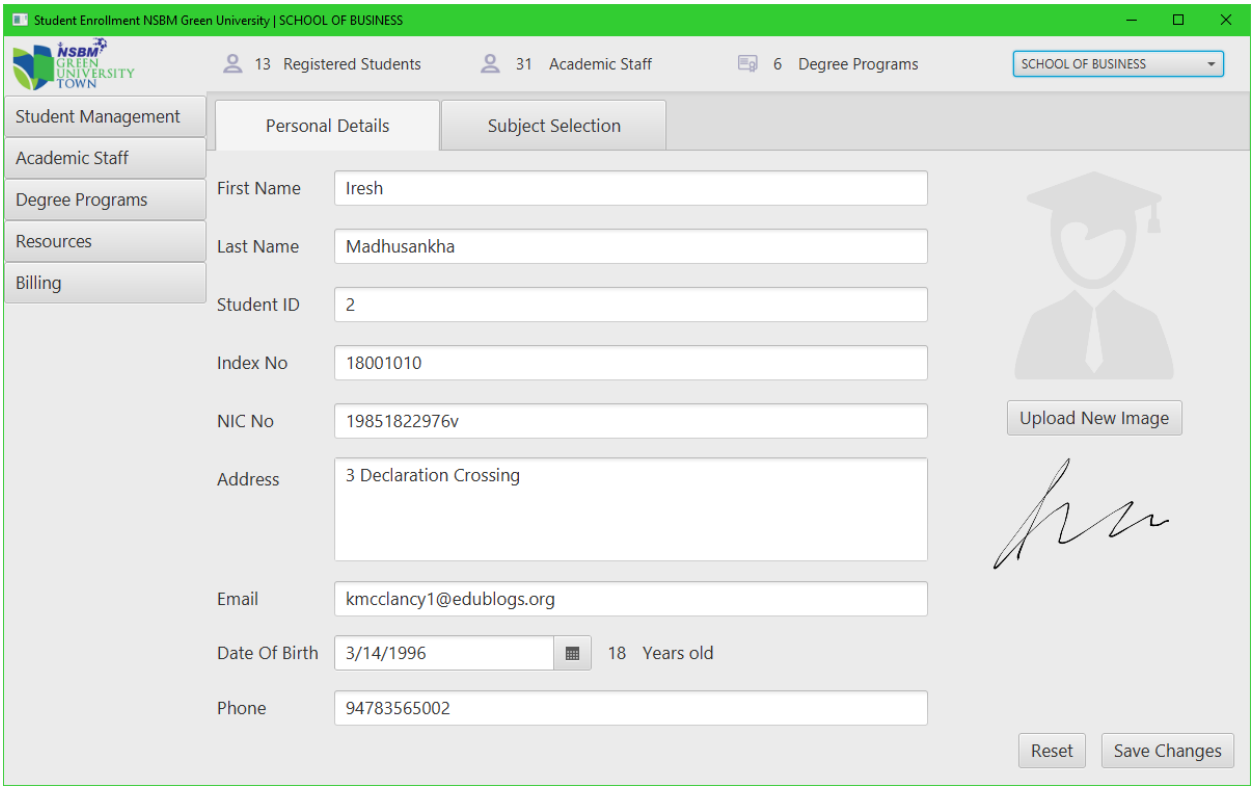
Subjects for the first semester can be selected here and then the student intake process is finished.

2. Student Management

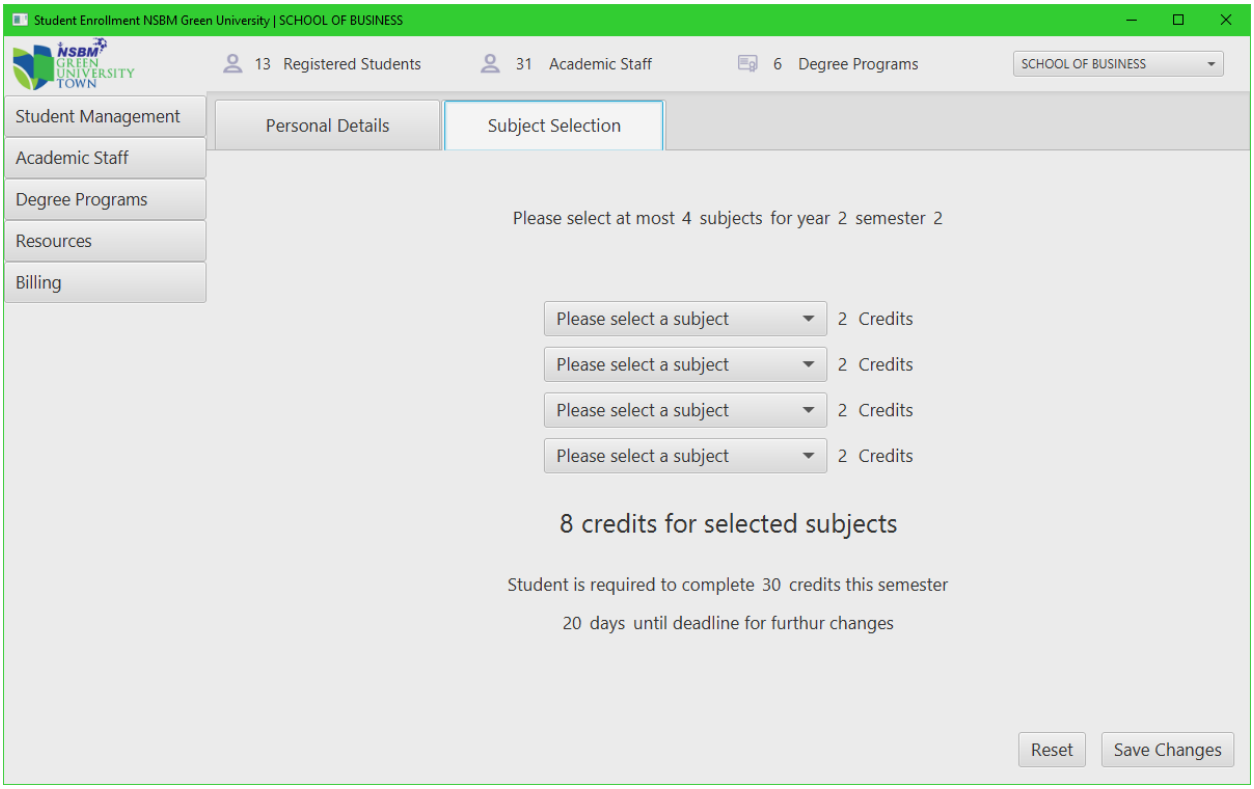
Once the program is opened, the first page that appear is student management page and student ID of an existing student should be entered in order to manage that student.



Once the continue button is pressed, the user is taken to the management of the selected student.

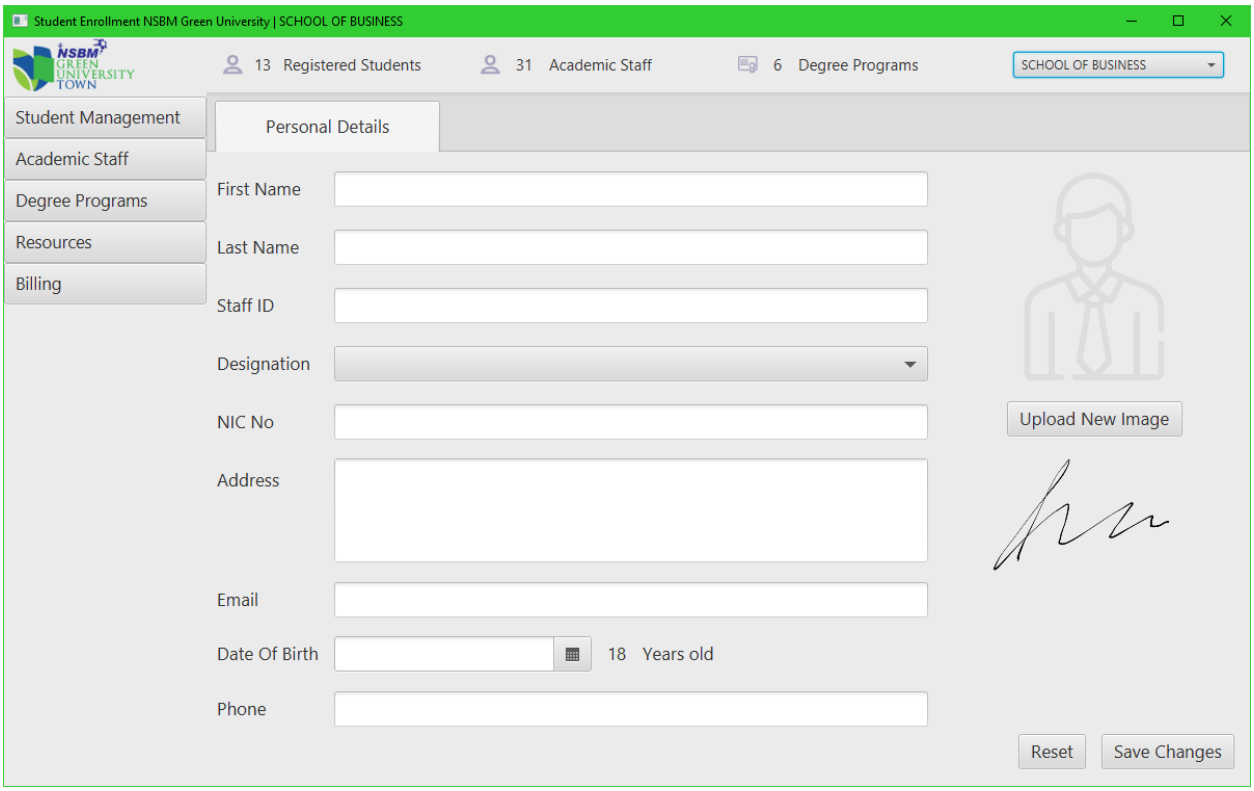


These fields can be updated. Also subjects for the upcoming semesters can be selected.



3. Academic Staff

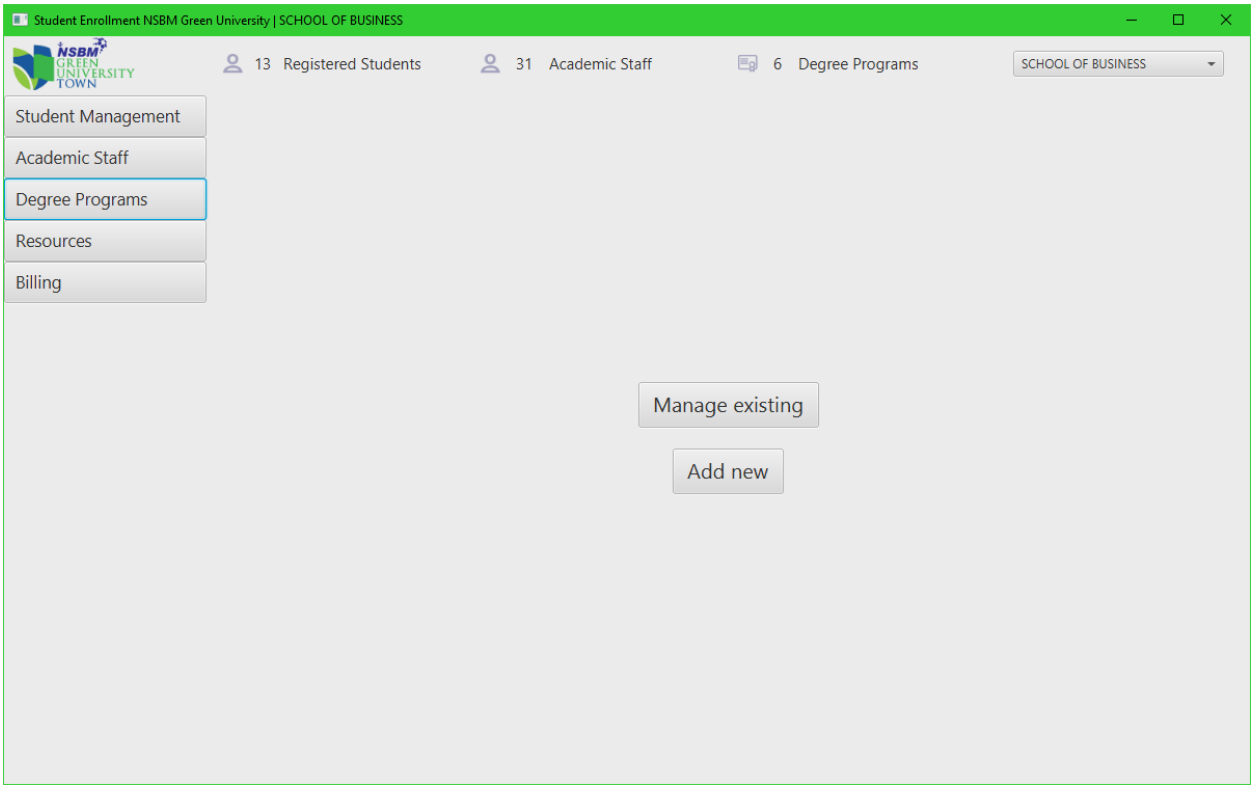
Academic staff management section can be opened by clicking the corresponding button of left side panel.



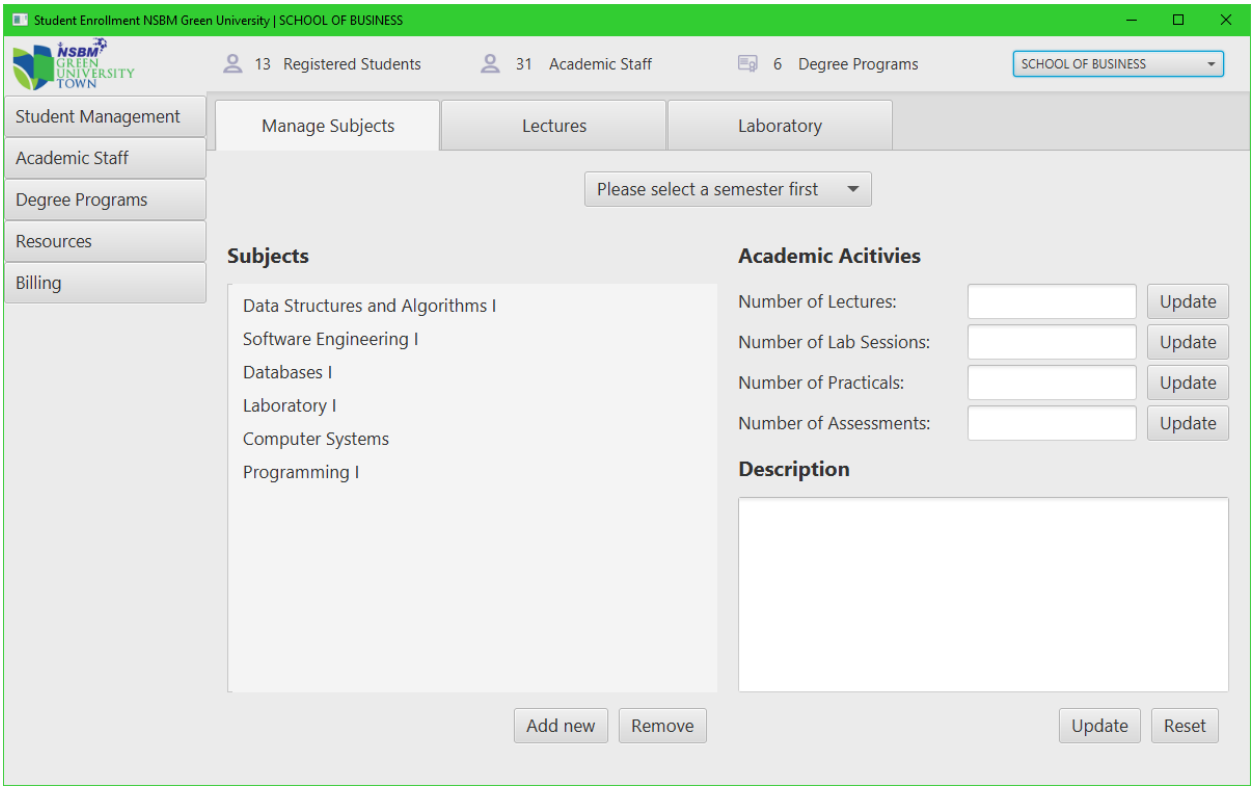
Personal details of the staff members can be updated.

4. Degree Programs

Degree programs section can opened by clicking on the Degree Programs on left side panel.



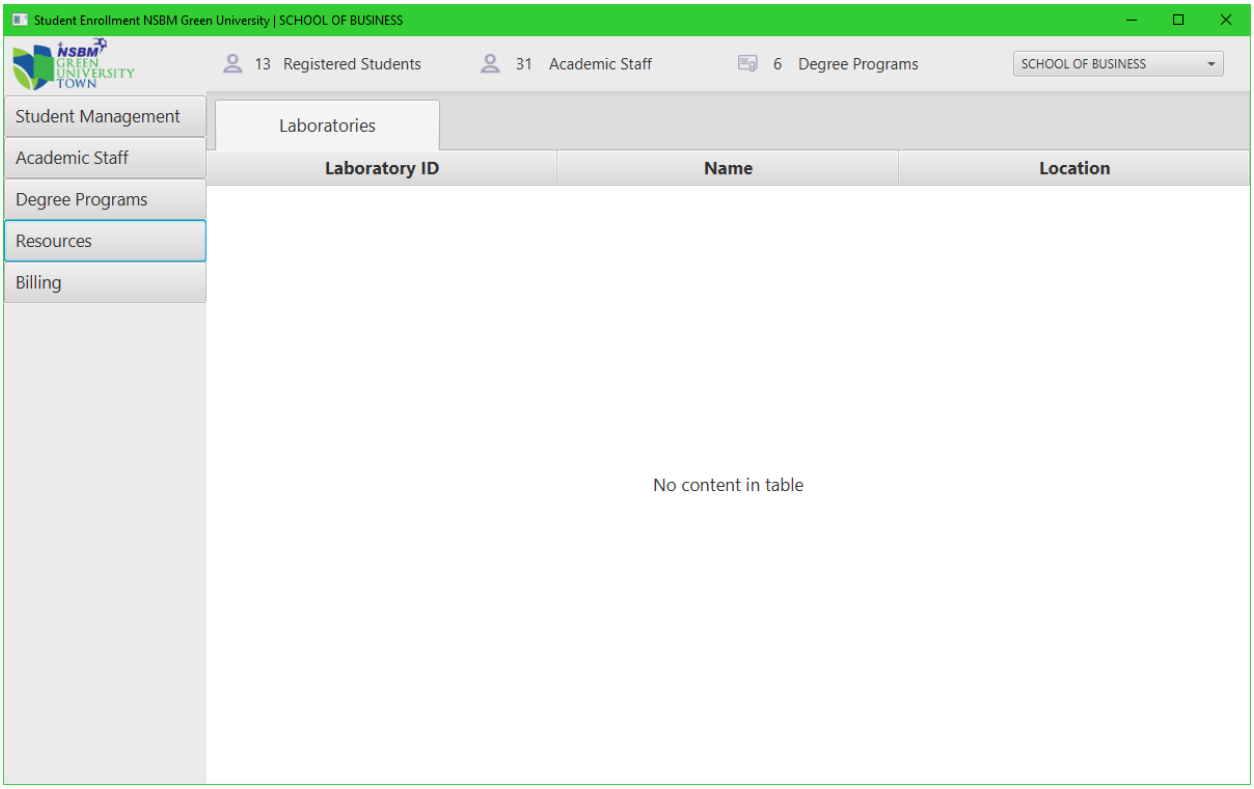
We have the option to add new or manage existing. To manage existing, we can click “Manage existing button”



Here subjects, lectures and laboratory sessions for a selected degree program can be managed.

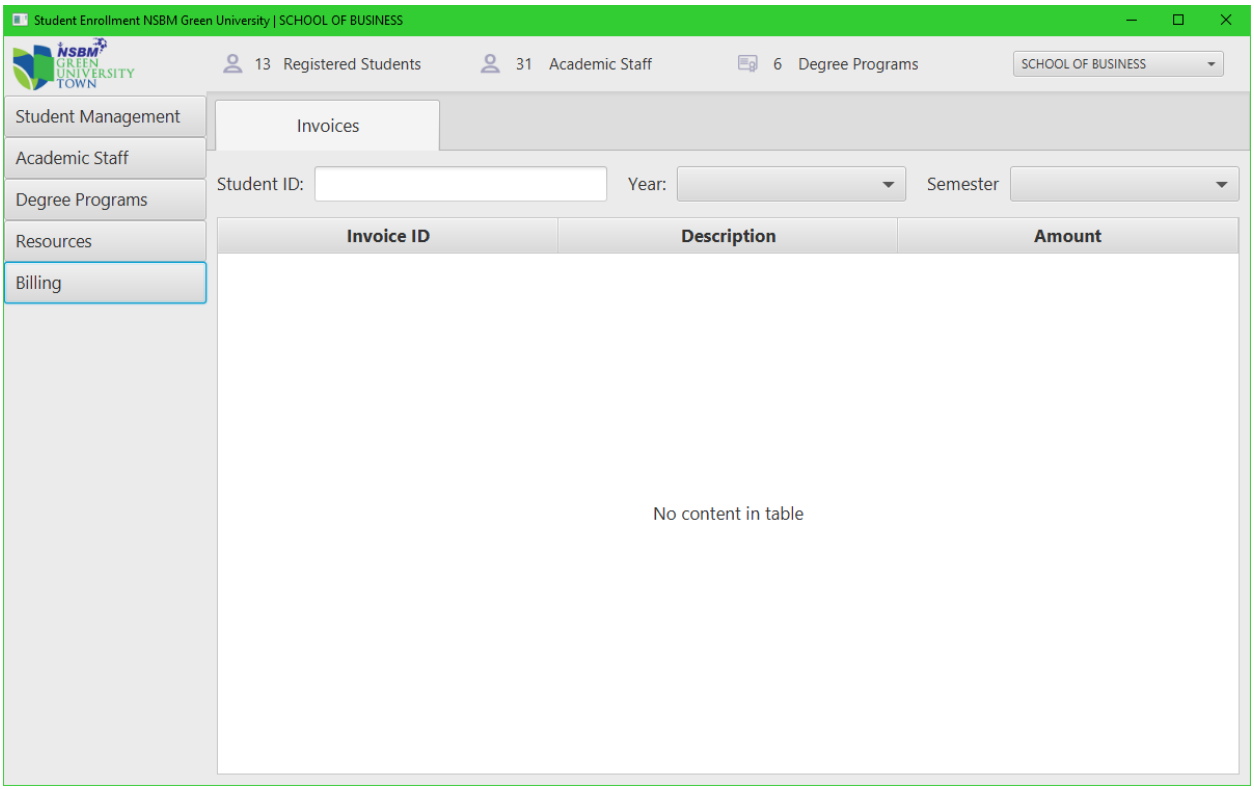
5. Resources

Resources section can be viewed by clicking the resources button on the side panel



6. Billing

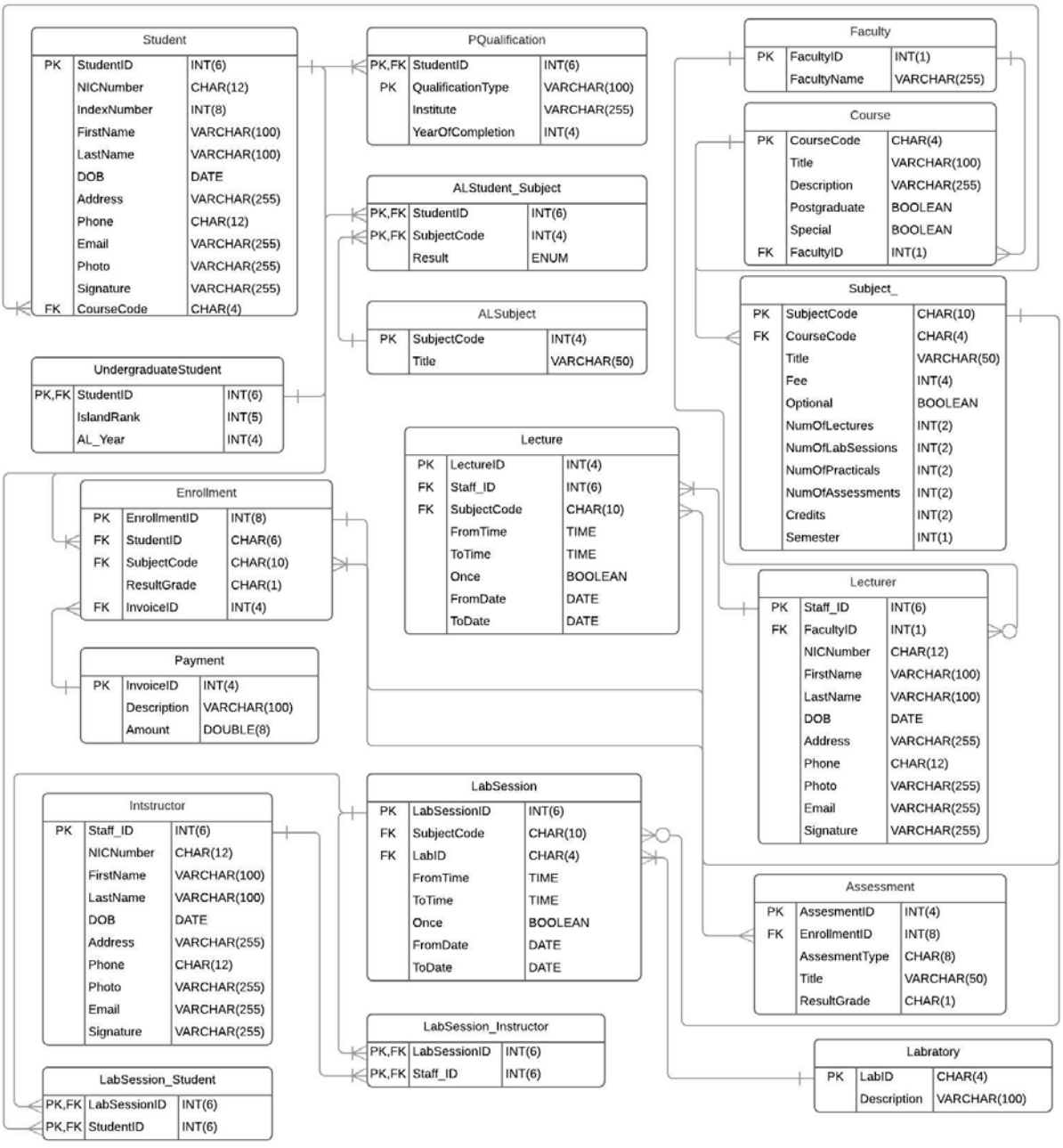
Invoices for a selected student can be viewed here, additional filters can be applied.



Implementation

1. Database design

Following diagram would explain the whole database design

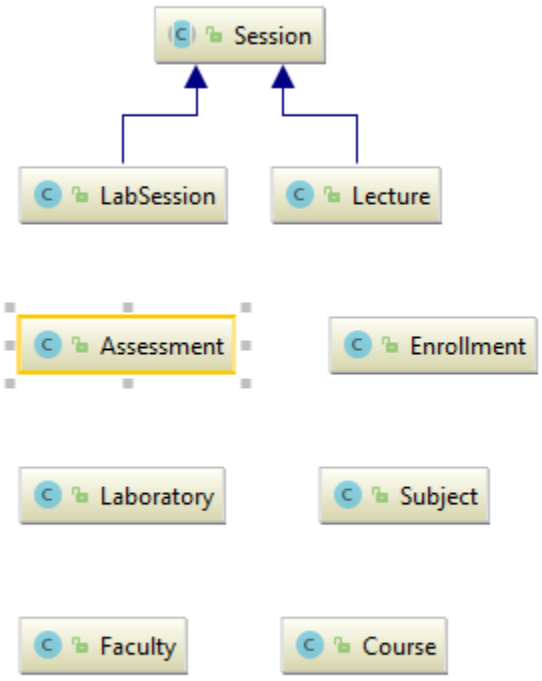


Database is implemented is using MySQL.

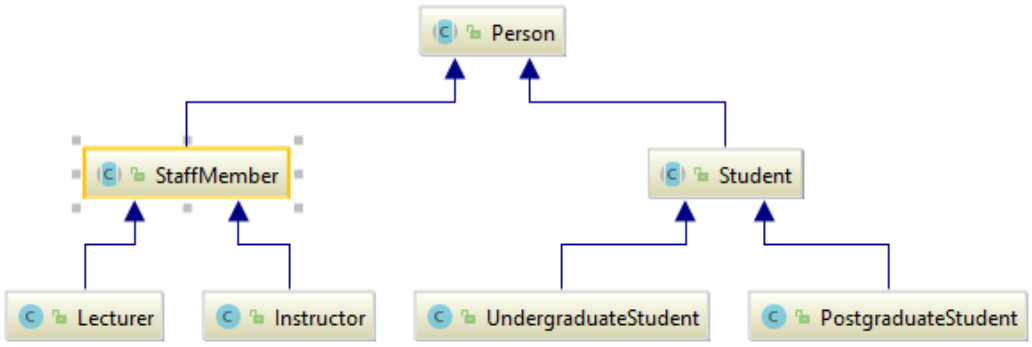
2. Class diagrams

Class diagram hierarchies for the system implementation are below,

com.nsbm.app.components.academic package



com.nsbm.app.components.human package



3. Database Connection

MySQL connector for JDBC is used for establishing the connection to database.

```
public class DatabaseConnection {

    private Connection connection;
    private Statement statement;

    public DatabaseConnection(String url, String user, String password) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");

            connection = DriverManager.getConnection( url: "jdbc:mysql://" + url +
                    "/demo?autoReconnect=true&useSSL=true&verifyServerCertificate=false", user, password);

            statement = connection.createStatement();

        } catch (ClassNotFoundException e) {
            e.printStackTrace();
        } catch (SQLException e) {
            e.printStackTrace();
        }

    }
```

All the SQL queries required for the program resides inside DatabaseConnection class.