

Project Report

Programming III (SCS2104)

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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

The screenshot shows the 'Student Enrollment NSBM Green University | SCHOOL OF COMPUTING' window. The top navigation bar includes a logo, a user profile icon with '13 Registered Students', another user profile icon with '31 Academic Staff', and a document icon with '6 Degree Programs'. A dropdown menu is open on the right, showing 'SCHOOL OF COMPUTING' (selected), 'SCHOOL OF BUSINESS', 'SCHOOL OF ENGINEERING', and 'STUDENT INTAKE'. The left sidebar contains buttons for 'Student Management', 'Academic Staff', 'Degree Programs', 'Resources', and 'Billing'. The main content area displays 'Select a student to continue' with a text input field labeled 'Enter student ID here' and a 'Continue' button.

Once it is done the following dialog box appears,

The screenshot shows the 'Enter personal details of the student' dialog box. It features a form with the following fields: 'First Name' (Merrili), 'Last Name' (Lines), 'Student ID' (empty), 'Index No' (18005627), 'NIC No' (19825233289v), 'Address' (97095 Messerschmidt Lane), 'Email' (mlines0@cam.ac.uk), 'Date Of Birth' (8/23/2000) with a calendar icon, '18 Years old', and 'Phone' (94784793245). On the right side, there is a placeholder image of a student wearing a graduation cap, an 'Upload New Image' button, and a signature. A 'Next' button is located at the bottom right.

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

The screenshot shows a web application window titled "Student Enrollment NSBM Green University". The main heading is "Please select a course". Below this, there is a single dropdown menu with the text "BSc in Business Management" and a downward arrow. In the bottom right corner, there is a button labeled "Next".

The course can be selected and proceed.

The screenshot shows a web application window titled "Student Enrollment NSBM Green University". The main heading is "Please select subject for the first semester". Below this, there are four identical rows, each consisting of a dropdown menu with the text "Please select a subject" and a downward arrow, followed by the text "2 Credits". Below these rows, the text "8 credits for selected subjects" is displayed. Further down, there is a message: "Student is required to complete 30 credits this semester" and "20 days until deadline for further changes". In the bottom right corner, there is a button labeled "Finish".

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.

The screenshot shows the 'Student Enrollment NSBM Green University | SCHOOL OF BUSINESS' interface. The top navigation bar is green and contains the university logo, a user icon with '13 Registered Students', another user icon with '31 Academic Staff', a calendar icon with '6 Degree Programs', and a dropdown menu set to 'SCHOOL OF BUSINESS'. On the left, a sidebar menu has 'Student Management' highlighted in blue, with other options: 'Academic Staff', 'Degree Programs', 'Resources', and 'Billing'. The main content area is light gray and displays the text 'Select a student to continue' above a text input field containing the number '2'. Below the input field is a 'Continue' button.

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

The screenshot shows the 'Student Enrollment NSBM Green University | SCHOOL OF BUSINESS' interface with the 'Student Management' page selected. The top navigation bar is green and contains the university logo, a user icon with '13 Registered Students', another user icon with '31 Academic Staff', a calendar icon with '6 Degree Programs', and a dropdown menu set to 'SCHOOL OF BUSINESS'. On the left, a sidebar menu has 'Student Management' highlighted in blue, with other options: 'Academic Staff', 'Degree Programs', 'Resources', and 'Billing'. The main content area is light gray and displays the text 'Select a student to continue' above a text input field containing the number '2'. Below the input field is a 'Continue' button.

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

Student Enrollment NSBM Green University | SCHOOL OF BUSINESS

13 Registered Students 31 Academic Staff 6 Degree Programs SCHOOL OF BUSINESS

Student Management Personal Details Subject Selection

Please select at most 4 subjects for year 2 semester 2

Please select a subject 2 Credits

Please select a subject 2 Credits

Please select a subject 2 Credits

Please select a subject 2 Credits

8 credits for selected subjects

Student is required to complete 30 credits this semester
20 days until deadline for further changes

Reset Save Changes

3. Academic Staff

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

Student Enrollment NSBM Green University | SCHOOL OF BUSINESS

13 Registered Students 31 Academic Staff 6 Degree Programs SCHOOL OF BUSINESS

Student Management Personal Details Academic Staff Degree Programs Resources Billing

First Name

Last Name

Staff ID

Designation

NIC No

Address

Email

Date Of Birth 18 Years old

Phone

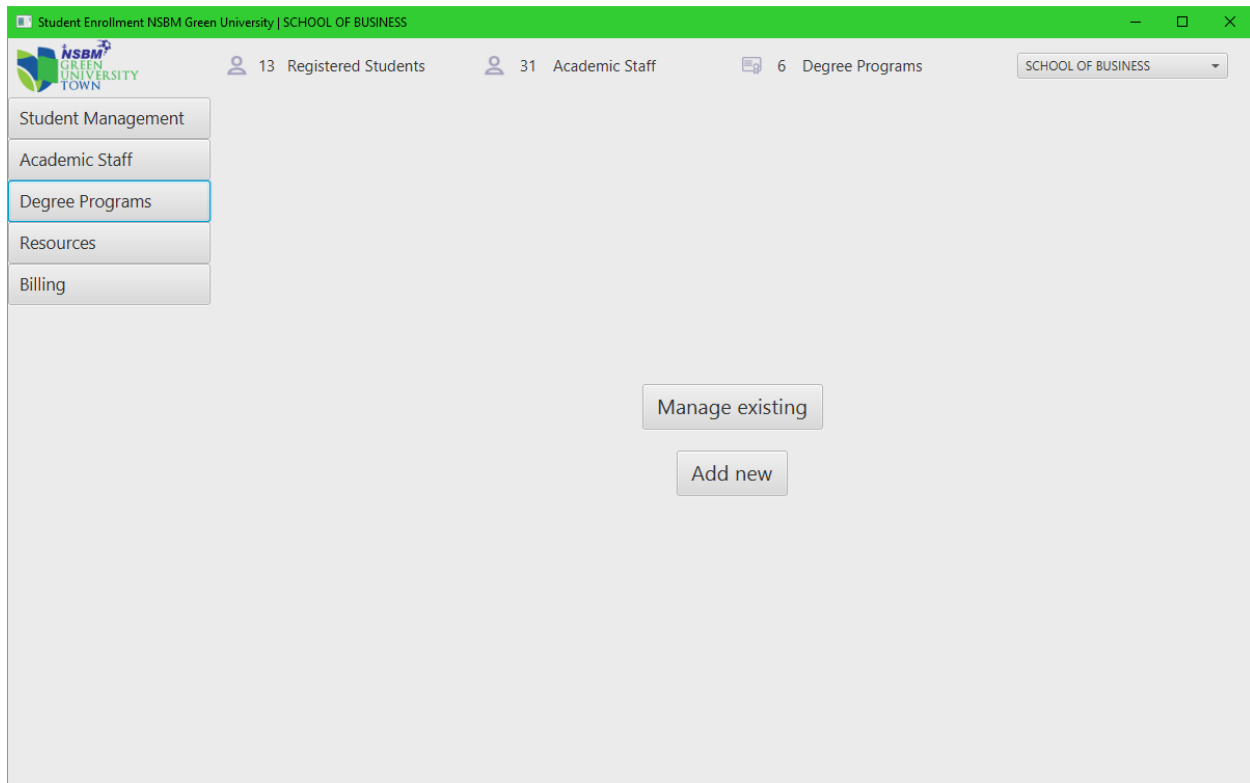
Upload New Image

Reset Save Changes

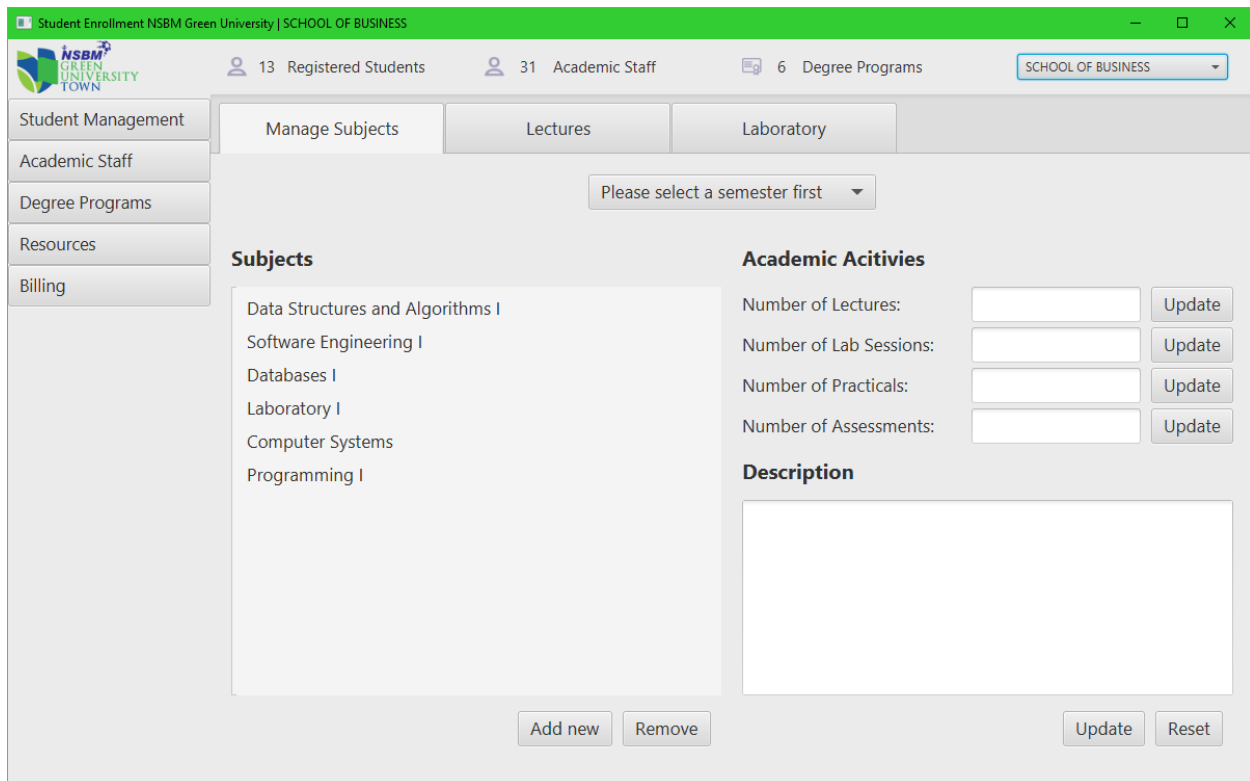
Personal details of the staff members can be updated.

4. Degree Programs

Degree programs section can be 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

The screenshot shows the 'Student Enrollment NSBM Green University | SCHOOL OF BUSINESS' interface. The top navigation bar includes the university logo, a user profile icon, and counts for '13 Registered Students', '31 Academic Staff', and '6 Degree Programs'. A dropdown menu shows 'SCHOOL OF BUSINESS'. The left sidebar contains a menu with 'Student Management', 'Academic Staff', 'Degree Programs', 'Resources' (highlighted), and 'Billing'. The main content area is titled 'Laboratories' and contains a table with columns 'Laboratory ID', 'Name', and 'Location'. The table is empty, displaying the message 'No content in table'.

6. Billing

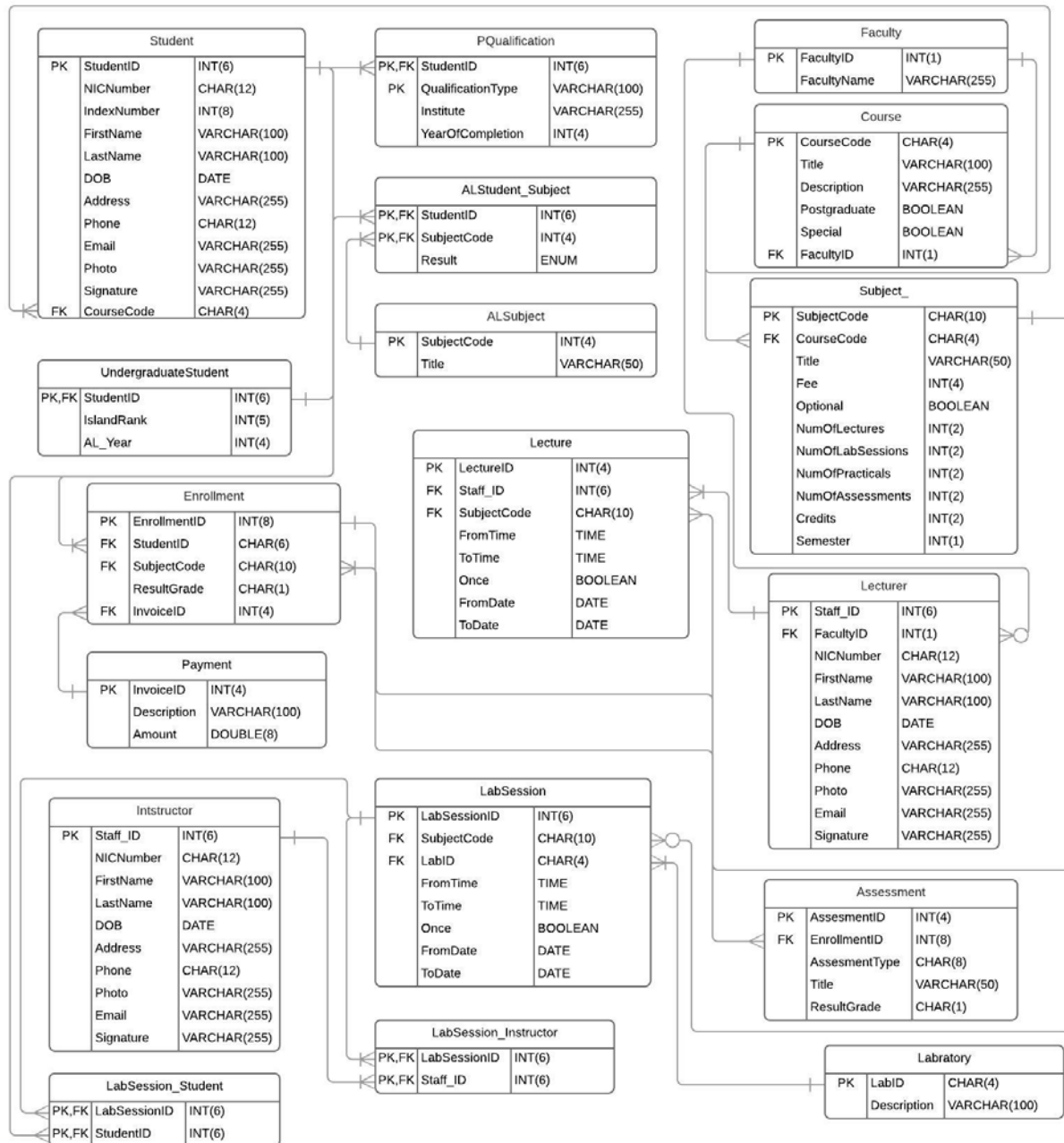
Invoices for a selected student can be viewed here, additional filters can be applied.

The screenshot shows the 'Student Enrollment NSBM Green University | SCHOOL OF BUSINESS' interface. The top navigation bar is identical to the previous screenshot. The left sidebar menu is the same, but 'Billing' is highlighted. The main content area is titled 'Invoices'. It features a filter section with 'Student ID:' followed by a text input field, and 'Year:' and 'Semester' dropdown menus. Below the filters is a table with columns 'Invoice ID', 'Description', and 'Amount'. The table is empty, displaying the message 'No content in table'.

Implementation

1. Database design

Following diagram would explain the whole database design

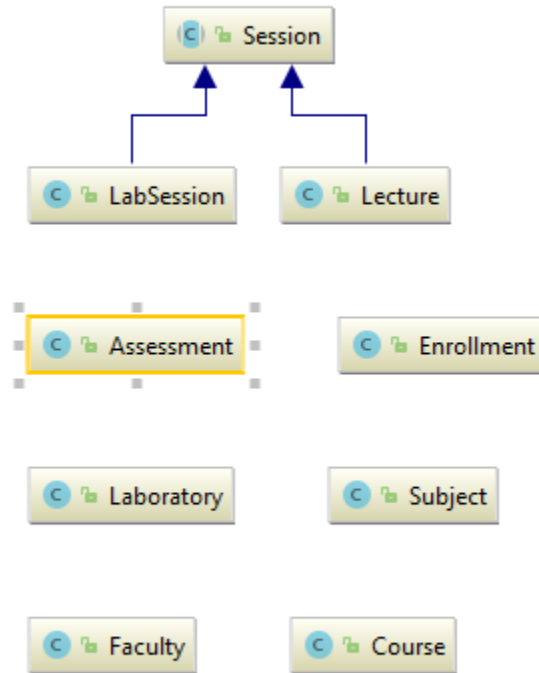


Database is implemented is using MySQL.

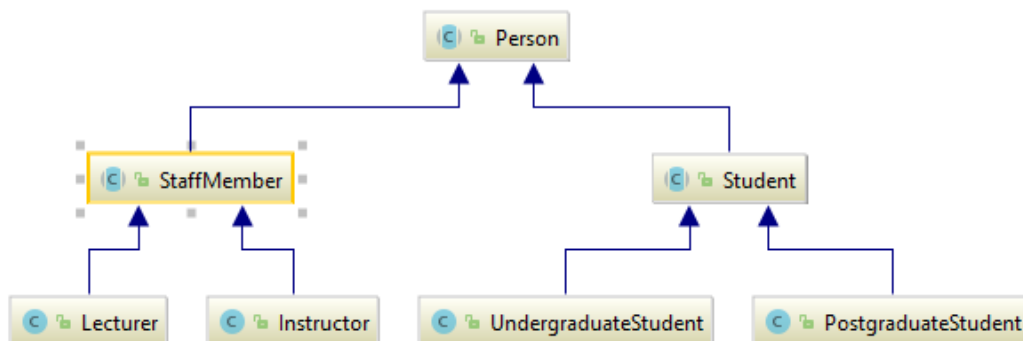
2. Class diagrams

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.