

# NSBM Management System

## Introduction

The system registers students of 3 different faculties and different courses for bachelor and master degrees with 2 intakes per every year. The system provides the feature of enrolling subjects of coming semester, giving the facility to select at most 4 subjects other than the principal subjects to fulfill the no of credits that should be completed in each year. Once students enroll into their subjects, the system emails the list of enrolled subjects with the fees to pay. The system stores details of subjects, courses, staff members(academic,non-academic) and also the teaching/class allocation information. The system handles the results of the students including all the assessments of each subject and emails a report of their results of the enrolled subjects in each semester.

# System Scope


- Student Registration.
- Staff(academic,non-academic), Subject, Teaching allocation details management.
- Enrolment of subjects of students.
- Maintain details of student results of subjects.
- Report generation.
- Send emails of reports.


## 1. Student Registration


The system registers students of 3 different faculties and different courses for bachelor and master degrees with 2 intakes per every year.


When a new student is coming to NSBM, basic information is collected and stored. Undergraduate students need to provide previous education records such as A/L Index no, A/L results. Postgraduate students should provide previous education records including qualification type, institute, year of completion.


## Undergraduate


**Student**


**Course**


**Staff**


**Add User**

**Register Student**

**View Student**

**Enrol Subject**

**Enter Results**

**View Results**

Student ID

Name

Date of Birth

Gender ☐ Male ☐ Female

Address

Contact No

Email

Faculty

Course

Intake

Type ☒ Undergraduate ☐ Postgraduate

A/L Index No

Year sat for A/L

Subject


Grade


Add


Update


Delete


## Postgraduate


**Student**

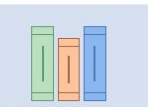
**Course**


**Staff**


**Add User**

**Register Student**

**View Student**

**Enrol Subject**

**Enter Results**

**View Results**

Student ID

Name

Date of Birth

Gender ☐ Male ☐ Female

Address

Contact No

Email

Faculty

Course

Intake

Type ☐ Undergraduate ☒ Postgraduate

Qualification Type

Institute

Year of Completion

Add

Update

Delete

Registered student details can be viewed from the following interface.

User can,

- Search a student from student ID.

The interface features a sidebar with navigation options: Student, Course, Staff, and Add User. The main area has five action buttons: Register Student, View Student, Enrol Subject, Enter Results, and View Results. Below these buttons are input fields for Student ID (ADBMKA161F005), Course ID, and Intake, followed by a Search button. A table displays the student's details.

s_id	name	dob	gender	address	contact_no	email	course_id	intake	type
ADBMKA161F005	Achala Dissana...	1996-08-05	M	No 13A, Puwakg...	768787820	achala.vidarshi1...	ADBM	16.1	Undergraduate

- Search students of a particular batch(intake) of a course.

The interface is similar to the first screenshot, but the search criteria are Course ID (ADBM) and Intake (16.1). The table now lists two students.

s_id	name	dob	gender	address	contact_no	email	course_id	intake	type
ADBMKA161F005	Achala Dissana...	1996-08-05	M	No 13A, Puwakg...	768787820	achala.vidarshi1...	ADBM	16.1	Undergraduate
ADBMKA161F012	Sasini Dissana...	1996-08-05	F	No 13A, Puwakg...	768783620	sasini.vidarshi1...	ADBM	16.1	Undergraduate

## 2. Enrollment of Subjects

- Students can enrol into the required subjects of coming semester, students can choose at most 4 subjects other than the principal subjects.
- Can unenroll from subjects 4 weeks before the semester.
- Send emails to students which contains a list of enrolled subjects with the corresponding fee.

Total credits are the sum of the the credits of enrolled subjects of coming semester so far.

The screenshot displays a web application for managing students and subjects. On the left is a vertical sidebar with icons and labels for 'Student', 'Course', 'Staff', and 'Add User'. The main area features five action buttons at the top: 'Register Student', 'View Student', 'Enrol Subject', 'Enter Results', and 'View Results'. Below these are input fields for 'Student ID' (containing 'ADBMKA161F012'), 'Subject ID', 'Year' (containing '1'), and 'Semester' (containing '1'). The 'Total credits' are shown as '3'. At the bottom are buttons for 'Enrol', 'Unenrol', 'Search', and 'Send Email'. On the right, a table lists enrolled subjects.

subject_id	subject_name	credit
SCS1201	Management and Finance	3

User can,

- Search enrolled subjects of a student in a particular year and semester.

The interface features a sidebar on the left with icons and labels for 'Student', 'Course', 'Staff', and 'Add User'. The main area has a top navigation bar with five buttons: 'Register Student', 'View Student', 'Enrol Subject', 'Enter Results', and 'View Results'. Below these are input fields for 'Student ID' (ADBMKA161F012), 'Subject ID', 'Year' (1), and 'Semester' (2). The 'Total credits' are displayed as 3. Action buttons include 'Enrol', 'Unenrol', 'Search', and 'Send Email'. A table on the right shows the search results.

subject_id	subject_name	credit
SCS1202	Accounting	3

- Search enrolled subjects of a student in a particular year.

This screenshot shows the same interface as the first, but with the 'Year' field set to 1. The 'Total credits' are now 6. The table on the right displays two results for the year 1.

subject_id	subject_name	credit	semester
SCS1201	Management and Finance	3	1
SCS1202	Accounting	3	2

### 3. Handling Results of students

- Results of assessments of each subject is recorded.
- Can update results and grade of relevant subject.
- Report of subject results are emailed to students.
- Results of students can be searched.

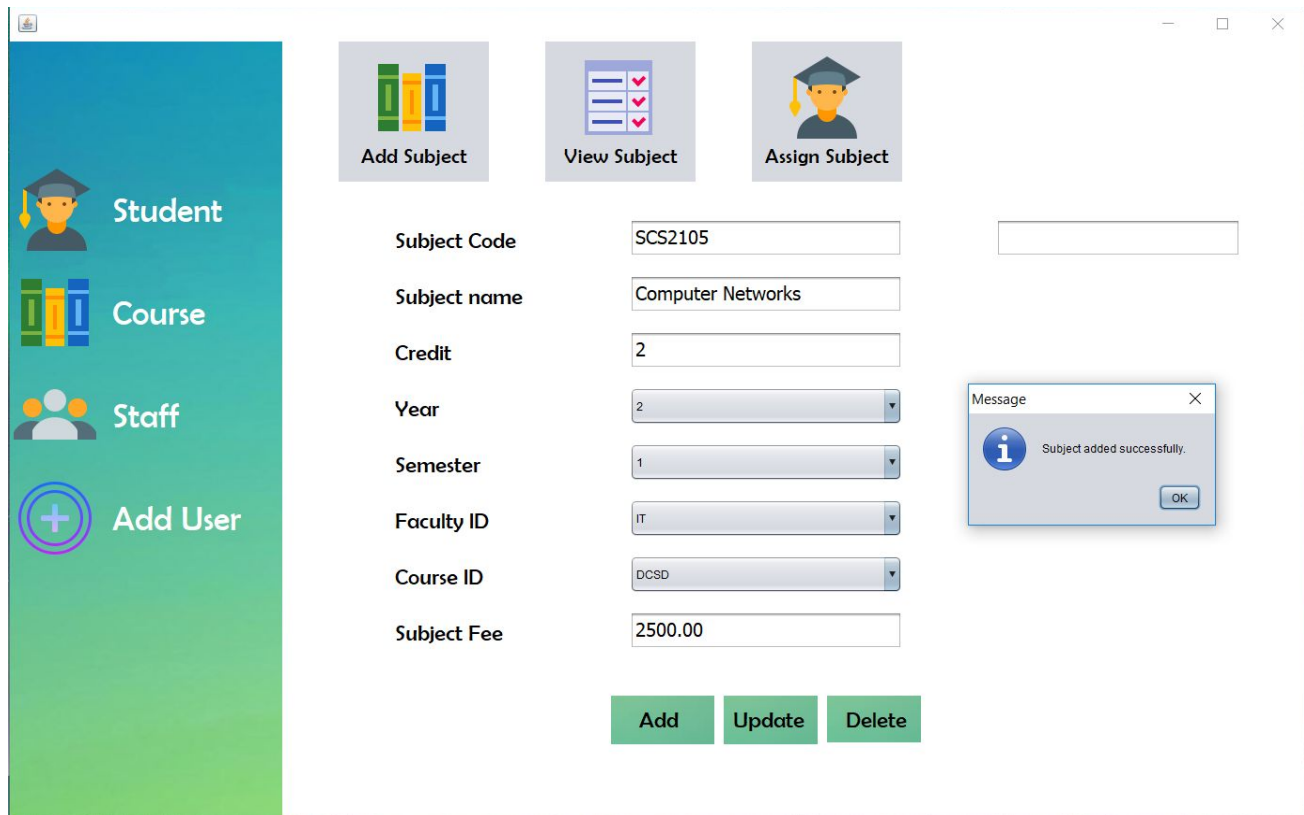
The screenshot shows a web application interface for entering student results. On the left is a vertical sidebar with icons and labels for 'Student', 'Course', 'Staff', and 'Add User'. The main area has five buttons at the top: 'Register Student', 'View Student', 'Enrol Subject', 'Enter Results' (which is active), and 'View Results'. Below these are input fields for 'Subject Code' (SCS1102), 'Student ID', 'Assesment' (Assignment 1), 'Year', 'Weight' (0.1), 'Semester', 'Student ID' (DCSDKA161F012), 'Result' (89), and 'Final Grade'. A 'Send Email' button is positioned to the right of the 'Result' field. At the bottom, there are three buttons: 'Add Result', 'Update Result', and 'Add Grade'. At the very bottom, there are input fields for 'Subject ID', 'Course ID', and 'Intake', followed by an 'Add grade' button.

The screenshot shows the 'View Results' form. It has the same sidebar and top navigation buttons as the previous form. The input fields are for 'Student ID' (16000412), 'Subject Code', 'Year' (1), 'Semester' (1), and 'Intake'. A green 'Search' button is located to the right of the 'Subject Code' field. Below the input fields is a table with two columns: 'subject\_id' and 'grade'. The first row of the table shows 'SCS1101' under 'subject\_id' and 'B' under 'grade'. The table area is otherwise empty.

subject_id	grade
SCS1101	B

#### 4. Maintain details of Subjects

- Can add subjects.

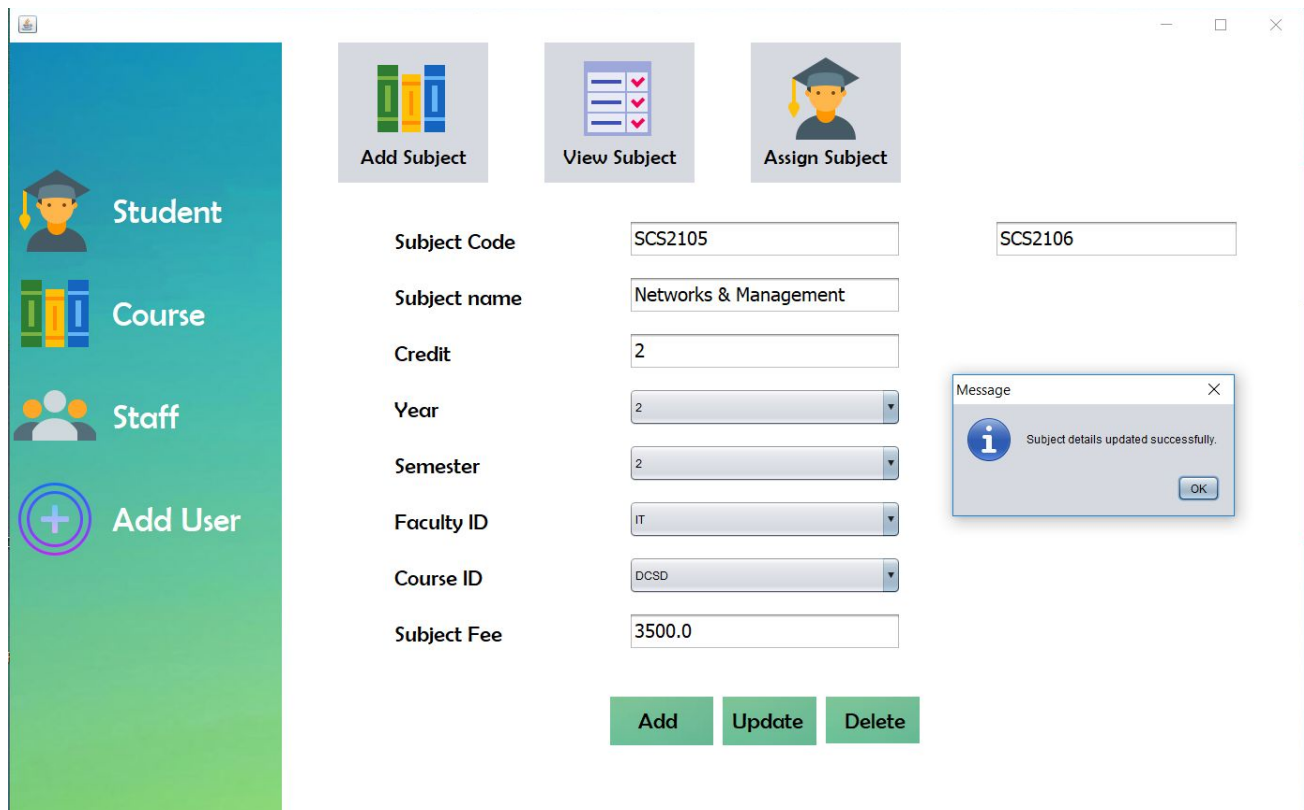


The screenshot shows a web application interface for managing subjects. On the left is a sidebar with navigation links: Student, Course, Staff, and Add User. The main area has three tabs: Add Subject, View Subject, and Assign Subject. The 'Add Subject' tab is active, displaying a form with the following fields:

Field	Value
Subject Code	SCS2105
Subject name	Computer Networks
Credit	2
Year	2
Semester	1
Faculty ID	IT
Course ID	DCSD
Subject Fee	2500.00

At the bottom of the form are three buttons: Add, Update, and Delete. A message box on the right states: "Subject added successfully."

- Can update the details of subjects.



The screenshot shows the same web application interface, but the 'Update Subject' tab is active. The form fields are populated with the following values:

Field	Value
Subject Code	SCS2105
Subject name	Networks & Management
Credit	2
Year	2
Semester	2
Faculty ID	IT
Course ID	DCSD
Subject Fee	3500.0

At the bottom of the form are three buttons: Add, Update, and Delete. A message box on the right states: "Subject details updated successfully."



- Can delete subjects.

The screenshot shows a web application interface for managing subjects. On the left is a sidebar with navigation links: Student, Course, Staff, and Add User. The main area has three buttons at the top: Add Subject, View Subject, and Assign Subject. Below these is a form for adding a new subject. The form fields are as follows:

Field	Value
Subject Code	SCS2106
Subject name	Networks & Management
Credit	2
Year	2
Semester	2
Faculty ID	IT
Course ID	DCSD
Subject Fee	3500.0

At the bottom of the form are three buttons: Add, Update, and Delete. A modal dialog box is open, asking 'Do you really want to delete this Subject?' with 'Yes' and 'No' buttons.

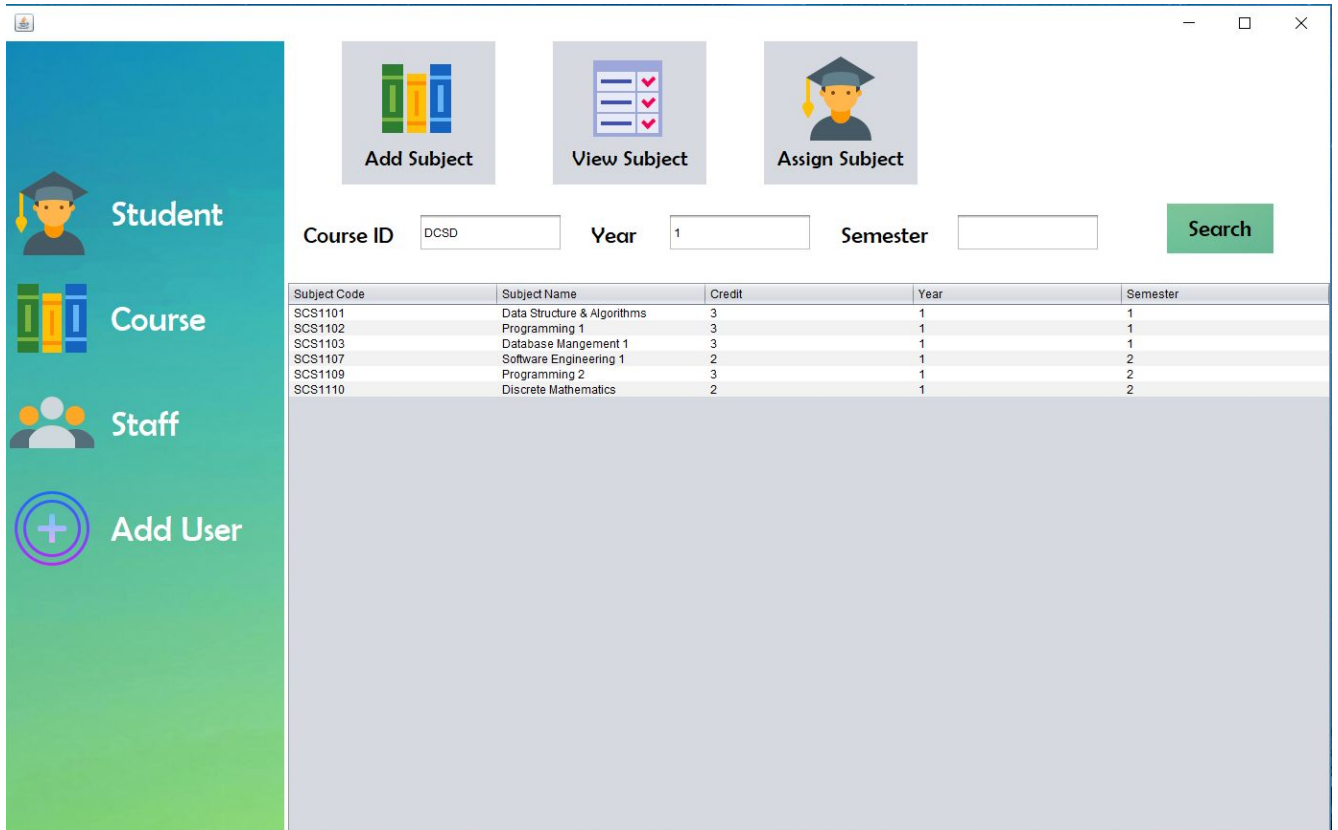
User can view the details of subjects as follows.

- View all the subjects of a course.

The screenshot shows the 'View Subject' page. At the top, there are three buttons: Add Subject, View Subject, and Assign Subject. Below these is a search bar with fields for Course ID, Year, and Semester, and a Search button. The search results are displayed in a table below.

Subject Code	Subject Name	Credit	Year	Semester
SCS1101	Data Structure & Algorithms	3	1	1
SCS1102	Programming 1	3	1	1
SCS1103	Database Management 1	3	1	1
SCS1107	Software Engineering 1	2	1	2
SCS1109	Programming 2	3	1	2
SCS1110	Discrete Mathematics	2	1	2
SCS2101	Data Structure & Algorithms	2	2	1
SCS2103	Software Engineering 2	2	2	1
SCS2106	Networks & Management	2	2	2

- View subjects of a course in a particular year.

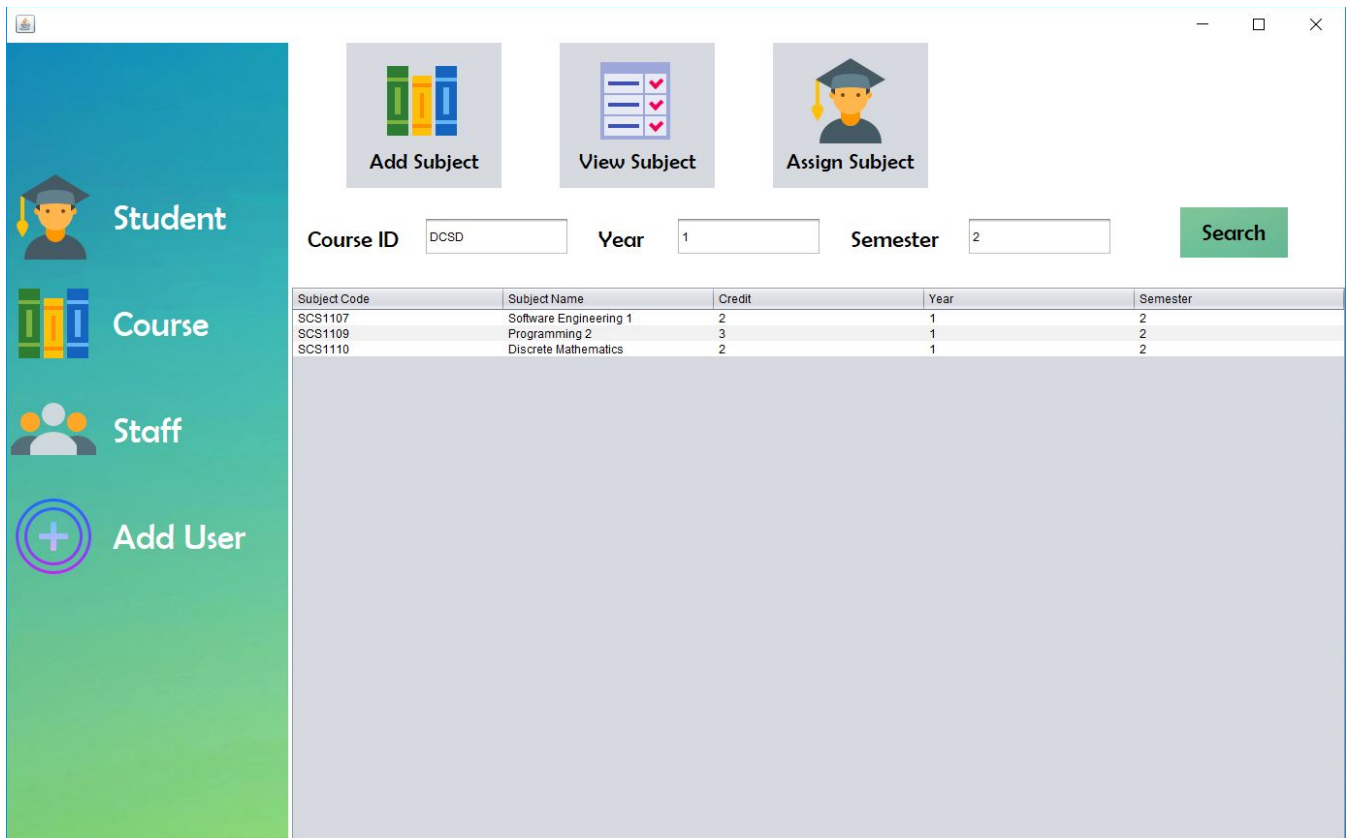


Course ID:  Year:  Semester:

**Search**

Subject Code	Subject Name	Credit	Year	Semester
SCS1101	Data Structure & Algorithms	3	1	1
SCS1102	Programming 1	3	1	1
SCS1103	Database Mangement 1	3	1	1
SCS1107	Software Engineering 1	2	1	2
SCS1109	Programming 2	3	1	2
SCS1110	Discrete Mathematics	2	1	2

- View subjects of a course in a particular year and semester.



Course ID:  Year:  Semester:

**Search**

Subject Code	Subject Name	Credit	Year	Semester
SCS1107	Software Engineering 1	2	1	2
SCS1109	Programming 2	3	1	2
SCS1110	Discrete Mathematics	2	1	2

## 5. Maintain details of Staff members.(Academic/Non academic)

- Add new staff member.

The screenshot shows a web application interface for managing staff members. On the left is a sidebar with icons and labels for 'Student', 'Course', 'Staff', and 'Add User'. The main area has two buttons at the top: 'Add Staff' and 'View staff'. Below these is a form for adding a new staff member. The form fields are: Staff ID (crw), Name (Rupika Wijesinghe), Gender (Female selected), Address (No 13, Mill road, Katubedda), Email (crw@nsbm.ac.lk), Contact no (0768783620), Designation (Senior Lecturer), Room No (10), and Faculty ID (IT). At the bottom are three buttons: 'Add', 'Update', and 'Delete'. A message box on the right says 'Message: Staff Member added successfully' with an 'OK' button.

Staff ID	crw
Name	Rupika Wijesinghe
Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female
Address	No 13, Mill road, Katubedda
Email	crw@nsbm.ac.lk
Contact no	0768783620
Designation	Senior Lecturer
Room No	10
Faculty ID	IT

Buttons: Add, Update, Delete

Message: Staff Member added successfully

- Update details of a staff member.

The screenshot shows the same web application interface, but the 'Update Staff' button is active. The form fields are: Staff ID (crw), Name (Rupika Wijesinghe), Gender (Female selected), Address (No 07, Rotunda gardens, Colombo3), Email (crw@nsbm.ac.lk), Contact no (0112422291), Designation (Senior Lecturer), Room No (15), and Faculty ID (B5). At the bottom are three buttons: 'Add', 'Update', and 'Delete'. A message box on the right says 'Message: Successfully updated details.' with an 'OK' button.

Staff ID	crw
Name	Rupika Wijesinghe
Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female
Address	No 07, Rotunda gardens, Colombo3
Email	crw@nsbm.ac.lk
Contact no	0112422291
Designation	Senior Lecturer
Room No	15
Faculty ID	B5

Buttons: Add, Update, Delete

Message: Successfully updated details.

- Delete a staff member.

The screenshot shows a web application interface for managing staff. On the left is a sidebar with icons for Student, Course, Staff, and Add User. The main area has two buttons: 'Add Staff' and 'View staff'. Below these is a form for adding a new staff member. The form fields are as follows:

Staff ID	crw
Name	Rupika Wijesinghe
Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female
Address	No 07, Rotunda gardens, Colombo3
Email	crw@nsbm.ac.lk
Contact no	0112422291
Designation	Senior Lecturer
Room No	15
Faculty ID	BS

At the bottom of the form are three buttons: 'Add', 'Update', and 'Delete'. A confirmation dialog box is open, asking 'Do you really want to delete Staff member?' with 'Yes' and 'No' buttons.

User can view the details of staff members as follows.

- View a staff member by entering the staff ID number.

The screenshot shows the 'View staff' page. It has a sidebar on the left and a main area with a search bar and a table. The search bar has fields for Staff ID, Name, and Faculty ID, and a 'Search' button. The table displays the details of the staff member with Staff ID 'crw'.

Staff ID	Name	Gender	Address	Email	Contact No	Designation	Room No	Faculty ID
crw	Rupika Wijesinghe	F	No 7, Rotunda Gardens, Colombo3	crw@nsbm.ac.lk	0112422291	Senior Lecturer	15	IT

- View a staff member by entering the name.

Staff ID  Name  Faculty ID

Staff ID	Name	Gender	Address	Email	Contact No	Designation	Room No	Faculty ID
cnb	Niyomal Botheju	M	No 7, Mill road, Katubedda	cnb@nsbm.ac.lk	0768783620	Senior Lecturer	20	IT

- View staff members which belong to a particular faculty.

Staff ID  Name  Faculty ID

Staff ID	Name	Gender	Address	Email	Contact No	Designation	Room No	Faculty ID
cnb	Niyomal Botheju	M	No 7, Mill road, Katubedda	cnb@nsbm.ac.lk	0768783620	Senior Lecturer	20	IT
crw	Rupika Wijesinghe	F	No 7, Rotunda Gardens, Colombo3	crw@nsbm.ac.lk	0112422291	Senior Lecturer	15	IT
cvw	Viraj Weerasekara	M	No 14, Rotunda Gardens, Colombo3	cvw@nsbm.ac.lk	0112427891	Lecturer	15	IT

## 6. Teaching allocation of lecturers and instructors.

- Add new class allocation.

The screenshot shows a web application interface for managing teaching allocations. On the left is a sidebar with navigation links: Student, Course, Staff, and Add User. The main area has three buttons at the top: Add Subject, View Subject, and Assign Subject. Below these are input fields for Staff ID (cnb), Subject ID (SCS1109), Location (S104), and Time (Monday 10.00-12.00pm). There are four buttons: Add, Update, Delete, and Search. A table on the right displays the current allocations. A message box is open, indicating the class allocation was added successfully.

staffid	subject_id	location	time
cnb	SCS1109	S104	Monday 10.00-12.00pm
crw	SCS1101	W002	Monday 8.00-10.00am

Message: Class allocation added successfully.

- Update class allocation.

The screenshot shows the same web application interface as before, but with the Location updated to W002 and the Time updated to Monday 1.00-3.00pm. The message box now indicates the allocation was updated successfully.

staffid	subject_id	location	time
cnb	SCS1109	W002	Monday 1.00-3.00pm
crw	SCS1101	W002	Monday 8.00-10.00am

Message: Updated Successfully.



- Delete class allocation.

The screenshot shows the 'Delete' dialog box in the class allocation system. The dialog box has a title bar with a close button (X). Inside, there is a question mark icon and the text 'Do you really want to delete assignment of subject?'. At the bottom right, there are two buttons: 'Yes' and 'No'.

The background interface shows a sidebar with navigation options: Student, Course, Staff, and Add User. The main area has three buttons at the top: Add Subject, View Subject, and Assign Subject. Below these are input fields for Staff ID (cnb), Subject ID (SCS1109), Location, and Time. There are also four buttons: Add, Update, Delete, and Search.

staffid	subject_id	location	time
cnb	SCS1109	W002	Monday 1.00-3.00pm
crw	SCS1101	W002	Monday 8.00-10.00am

User can search the details of class allocations as follows.

- View all class allocations of a lecturer/instructor in current semester.

The screenshot shows the 'View Subject' screen in the class allocation system. The interface is similar to the previous one, but the 'Delete' dialog box is not present. The 'View Subject' button is highlighted. The input fields for Staff ID (cnb), Subject ID, Location, and Time are visible. The 'Add', 'Update', 'Delete', and 'Search' buttons are also present.

subject_id	sub_name	location	time
SCS1109	Programming 2	S104	Friday 10.30-12.30pm
SCS2104	Programming 3	S104	Friday 10.30-12.30pm

- View class allocation of a subject.

The interface features a sidebar on the left with navigation options: Student, Course, Staff, and Add User. The main content area has three buttons at the top: Add Subject, View Subject, and Assign Subject. Below these are input fields for Staff ID, Subject ID (containing 'SCS1107'), Location, and Time. There are four action buttons: Add, Update, Delete, and Search. On the right, a table displays the class allocation data.

staffid	staff_name	sub_name	location	time
cnb	Niyomal Botheju	Software Engineering 1	E205	Friday 8.30-10.30pm





- View class allocations of a particular location.




The interface is similar to the first one, but the 'Location' input field is filled with 'E205'. The table on the right now shows two rows of data for the specified location.

staffid	staff_name	subject_id	sub_name	time
cnb	Niyomal Botheju	SCS2104	Programming 3	Friday 10.30-12.30am
cnb	Niyomal Botheju	SCS1107	Software Engineering 1	Friday 8.30-10.30am



- View class allocations by entering specific day or time.

 Student
  Course
  Staff
  Add User

 Add Subject
  View Subject
  Assign Subject

Staff ID   
 Subject ID   
 Location   
 Time





Add




Update

Delete

Search

staffid	staff_name	subject_id	sub_name	location	time
cnb	Niyomal Botheju	SCS1109	Programming 2	S104	Friday 10.30-12.30pm
crw	Rupika Wijesinghe	SCS2103	Software Engineering 2	W001	Friday 10.30-12.30pm

 Student
  Course
  Staff
  Add User

 Add Subject
  View Subject
  Assign Subject

Staff ID   
 Subject ID   
 Location   
 Time

Add

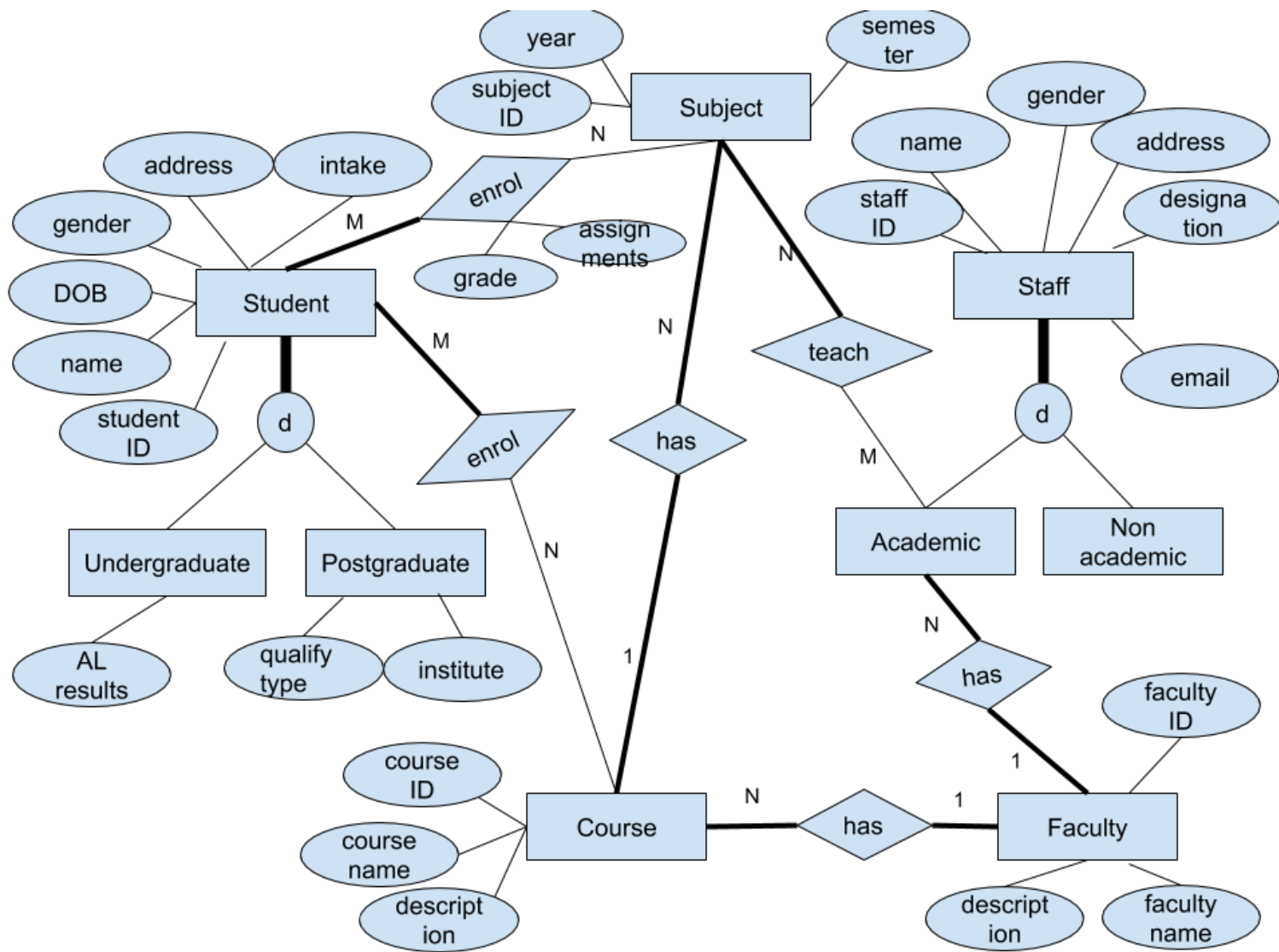
Update

Delete

Search

staffid	staff_name	subject_id	sub_name	location	time
cnb	Niyomal Botheju	SCS2104	Programming 3	E205	Friday 10.30-12.30pm
cnb	Niyomal Botheju	SCS1109	Programming 2	S104	Friday 10.30-12.30pm
crw	Rupika Wijesinghe	SCS2103	Software Engineering 2	W001	Friday 10.30-12.30pm
cnb	Niyomal Botheju	SCS1107	Software Engineering 1	E205	Friday 8.30-10.30am

# Database of the system



Index number : 16000412