SCHOOL OF BUSINESS SCIENCES

MILESTONE 4

IMPLEMENTATION PHASE

OMNILERTPRIME

PRIME TECH THAT EMPOWERS YOU

PROJECT *#OMNiConnect*

PREPARED BY

GROUP 8

Table of Contents

Introduction

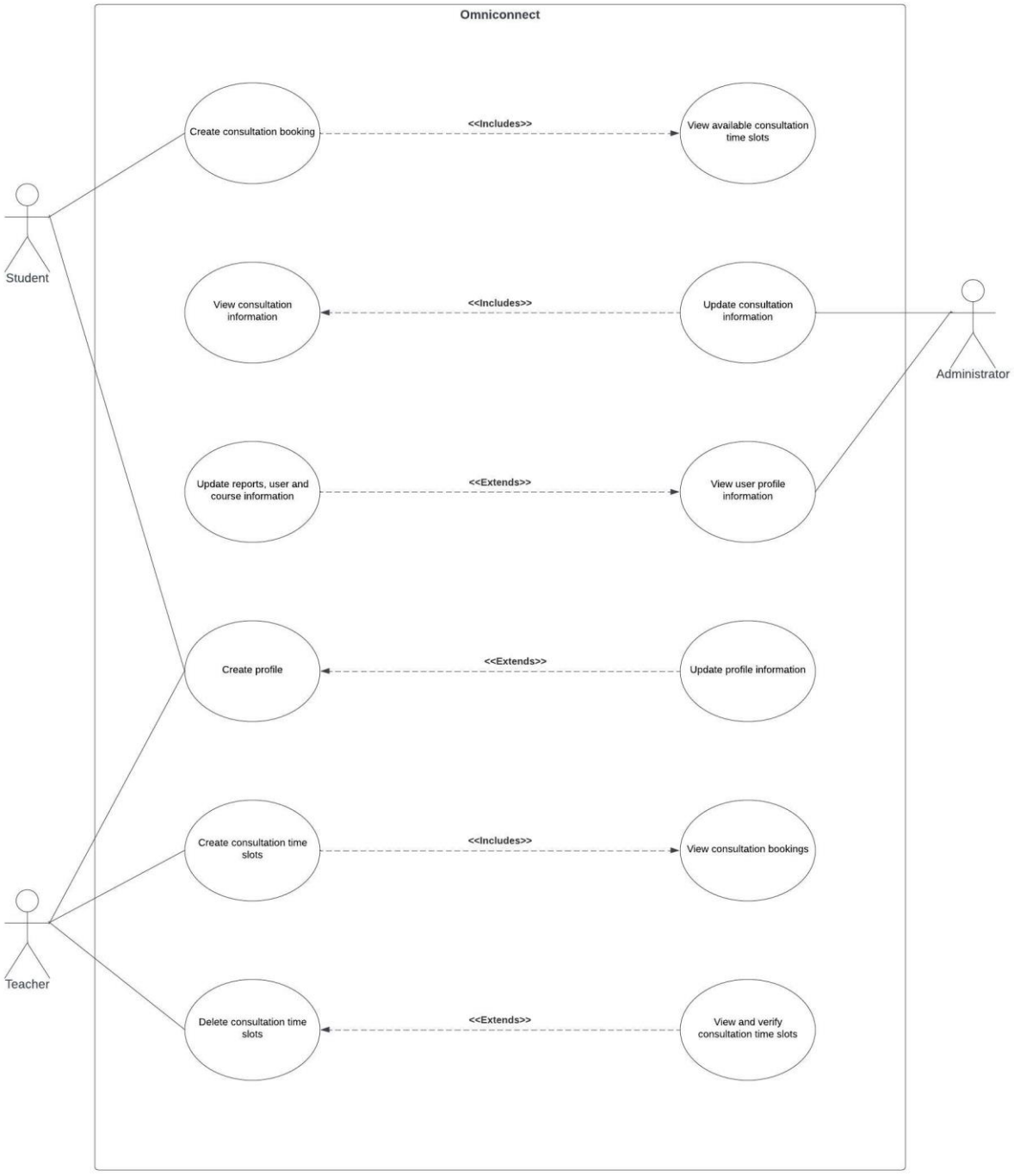
Description:

OMNiConnect is an application created for the purpose of streamlining the whole process of booking consultations and therefore making the process easier. The application has three main users, namely, Students, Lecturers and Administrators. Through this application, students will be able to schedule consultations with lecturers, lecturers will be able to create timeslots whereby they will be available for consultation and administrators will be in charge of managing all users of the system and overseeing the application's database.

Summarized requirements:

- System requirements (Hardware + Software):
  - Hardware:
    - Desktop – the most vital hardware element since the application is a local desktop application. No specific type of desktop required.
  - Software:
    - Operating system – again the most vital software element as no activities will take place on the desktop without an operating system. The preferred operating system is the Windows operating system.
- User requirements:
  - Functional requirements – describe what the application should do:
    - The system will enable students to book a consultation with any available lecturer.
  - Non-functional requirements – describe how well the application should work:
    - **Usability:** The application must be user-friendly and visually appealing with interfaces that are easy to use.

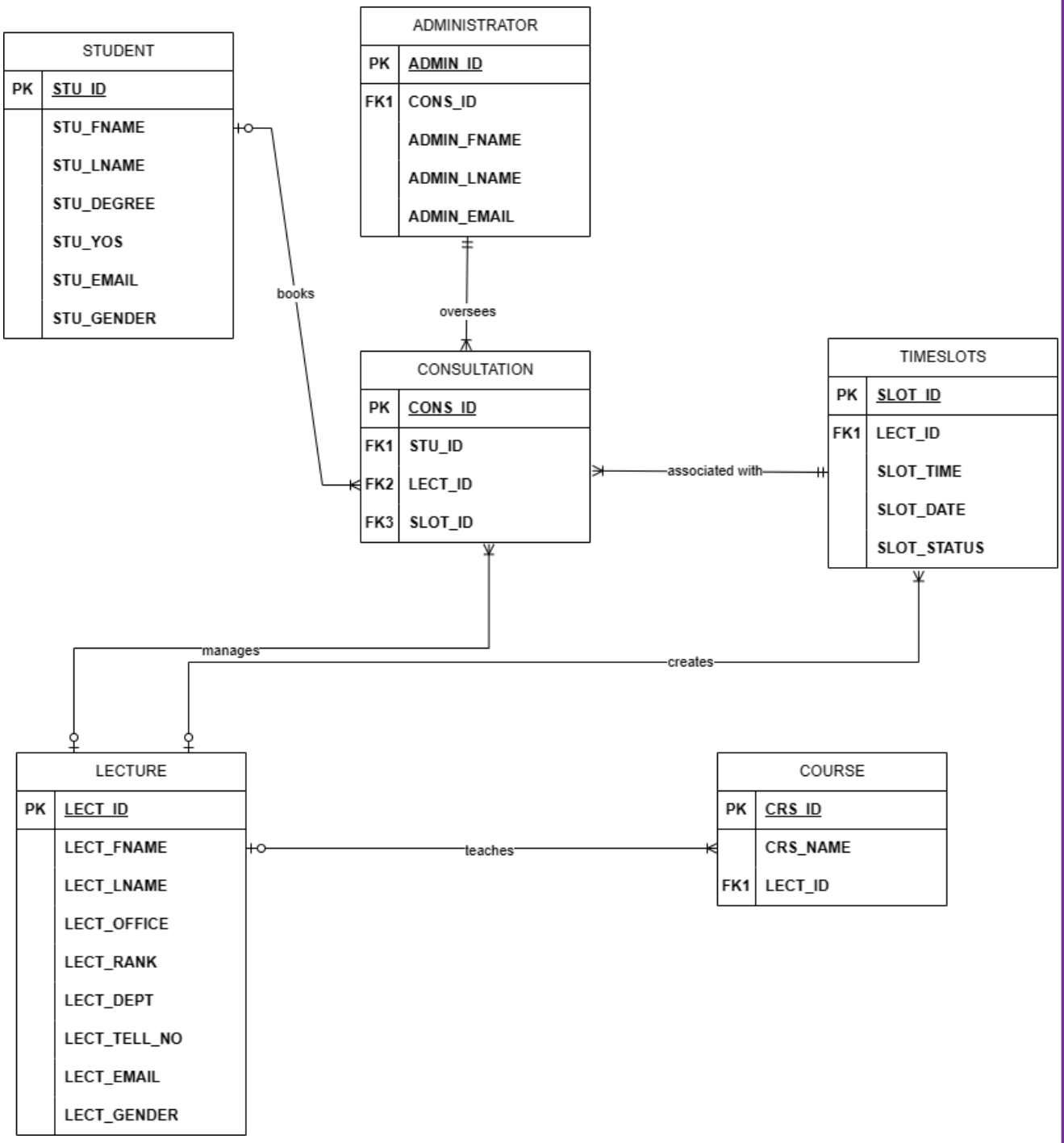
Use case diagram



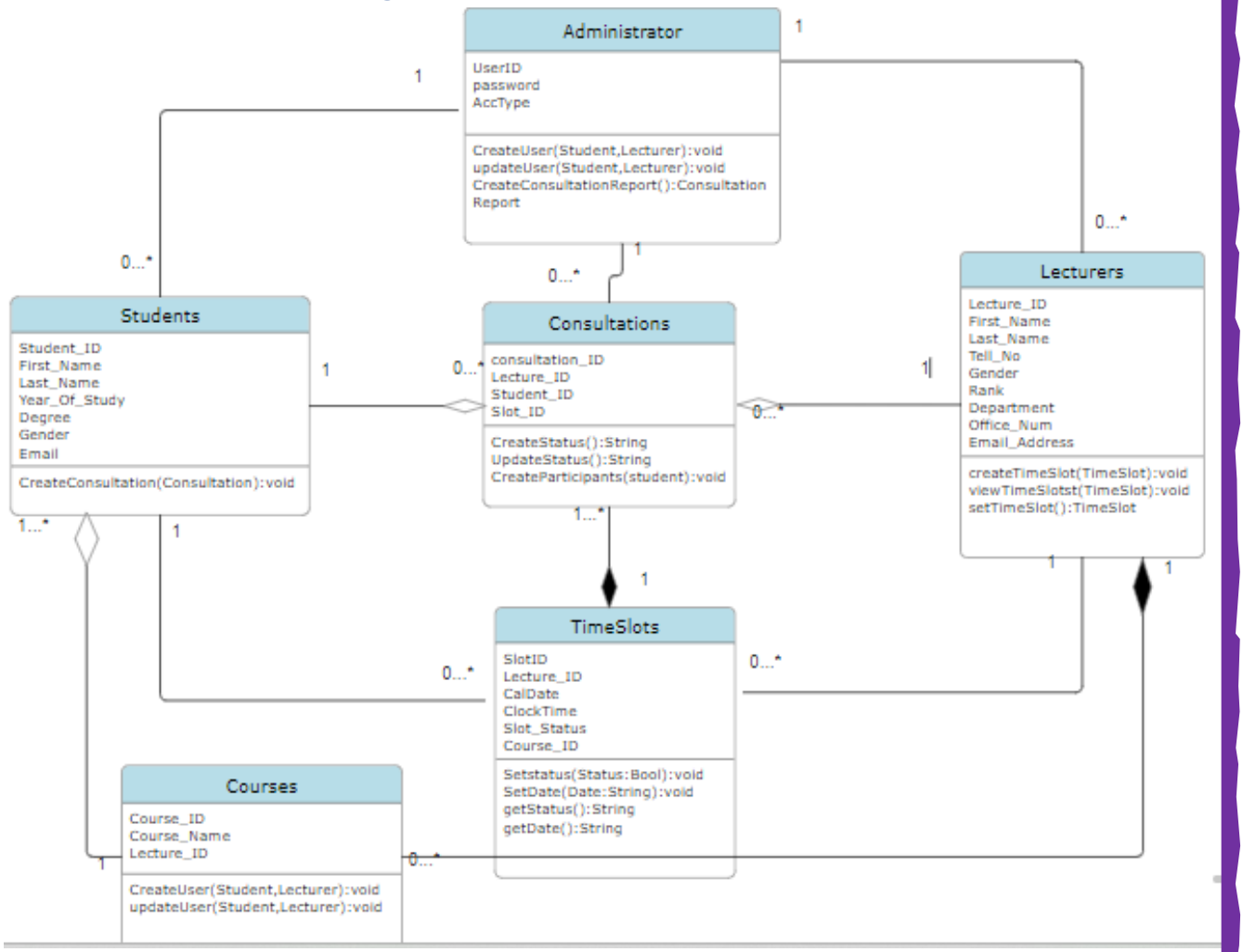
Use case description

Name	**Create consultation booking**
Actor(s)	**Student, System**
Pre-conditions	**The student is logged into the system**
Triggers	**The student's request to create a consultation booking**
Post-conditions	**The student successfully creates a consultation booking**
Basic flow of events	**1. The student clicks create consultation booking.** **2. The system displays the consultation booking page.** **3. The student selects the preferred consultation and submits.** **4. The system validates the availability of the selected consultation.** **5. The system confirms the available selected consultation.** **6. The student clicks book the consultation.** **7. The system books and reserves the consultation.** **8. The system sends a message to the student confirming the consultation booking.**
Alternate flow	**1. The student clicks view consultation booking.** **2. The system displays the view consultation booking page.** **3. The student views and selects the preferred consultation.** **4. The system validates the availability of the selected consultation.** **5. The system confirms the unavailable selected consultation.** **6. The student clicks cancel the consultation.** **7. The system cancels the consultation.** **8. The system sends a to the student confirming the cancelled consultation.**

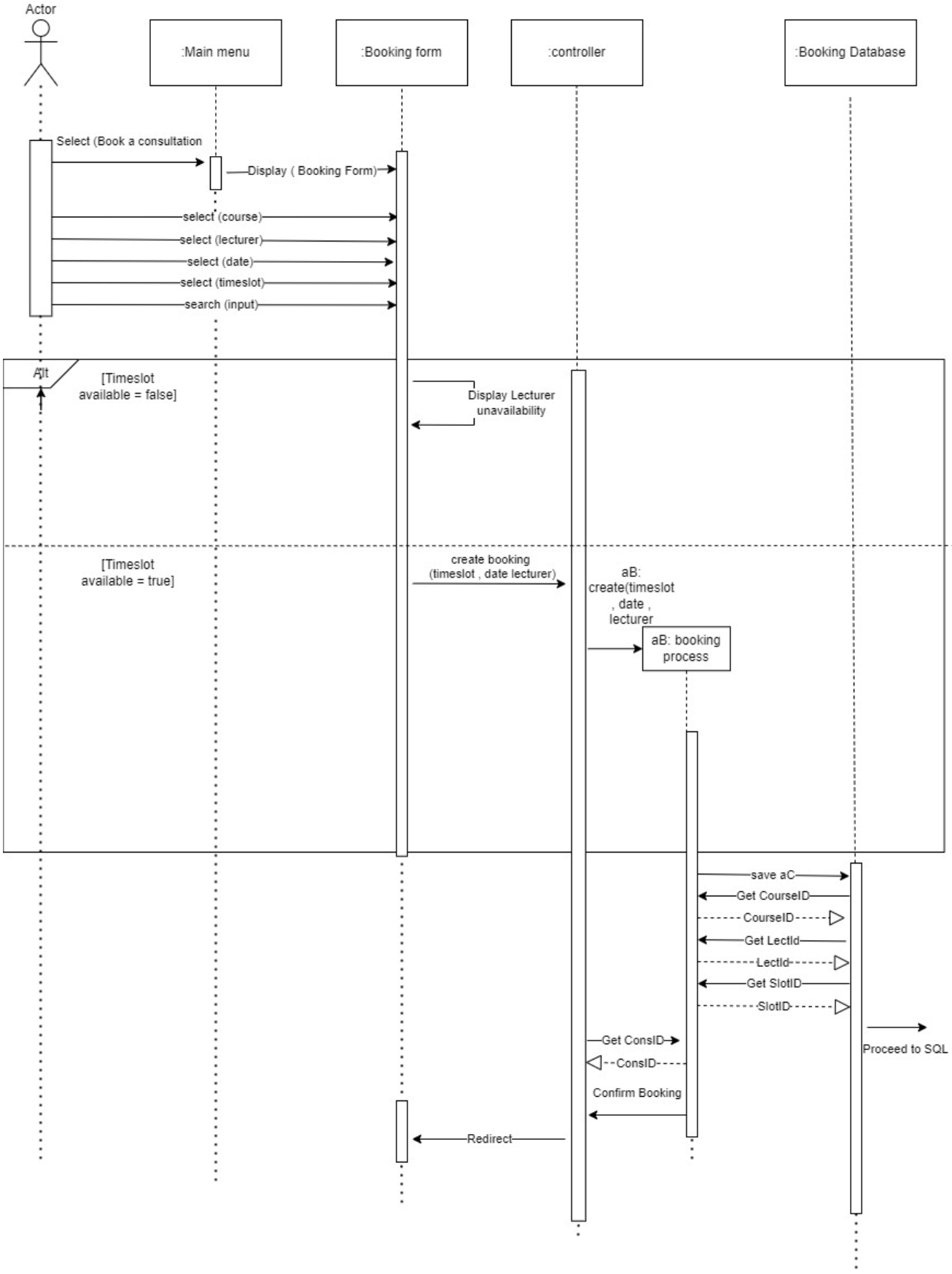
ERD


STUDENT
PK
STU_ID
STU_FNAME
STU_LNAME
STU_DEGREE
STU_YOS
STU_EMAIL
STU_GENDER
ADMINISTRATOR
PK
ADMIN_ID
FK1
CONS_ID
ADMIN_FNAME
ADMIN_LNAME
ADMIN_EMAIL
books
oversees
CONSULTATION
PK
CONS_ID
FK1
STU_ID
FK2
LECT_ID
FK3
SLOT_ID
associated with
TIMESLOTS
PK
SLOT_ID
FK1
LECT_ID
SLOT_TIME
SLOT_DATE
SLOT_STATUS
manages
creates
LECTURE
PK
LECT_ID
LECT_FNAME
LECT_LNAME
LECT_OFFICE
LECT_RANK
LECT_DEPT
LECT_TELL_NO
LECT_EMAIL
LECT_GENDER
leaches
COURSE
PK
CRS_ID
CRS_NAME
FK1
LECT_ID

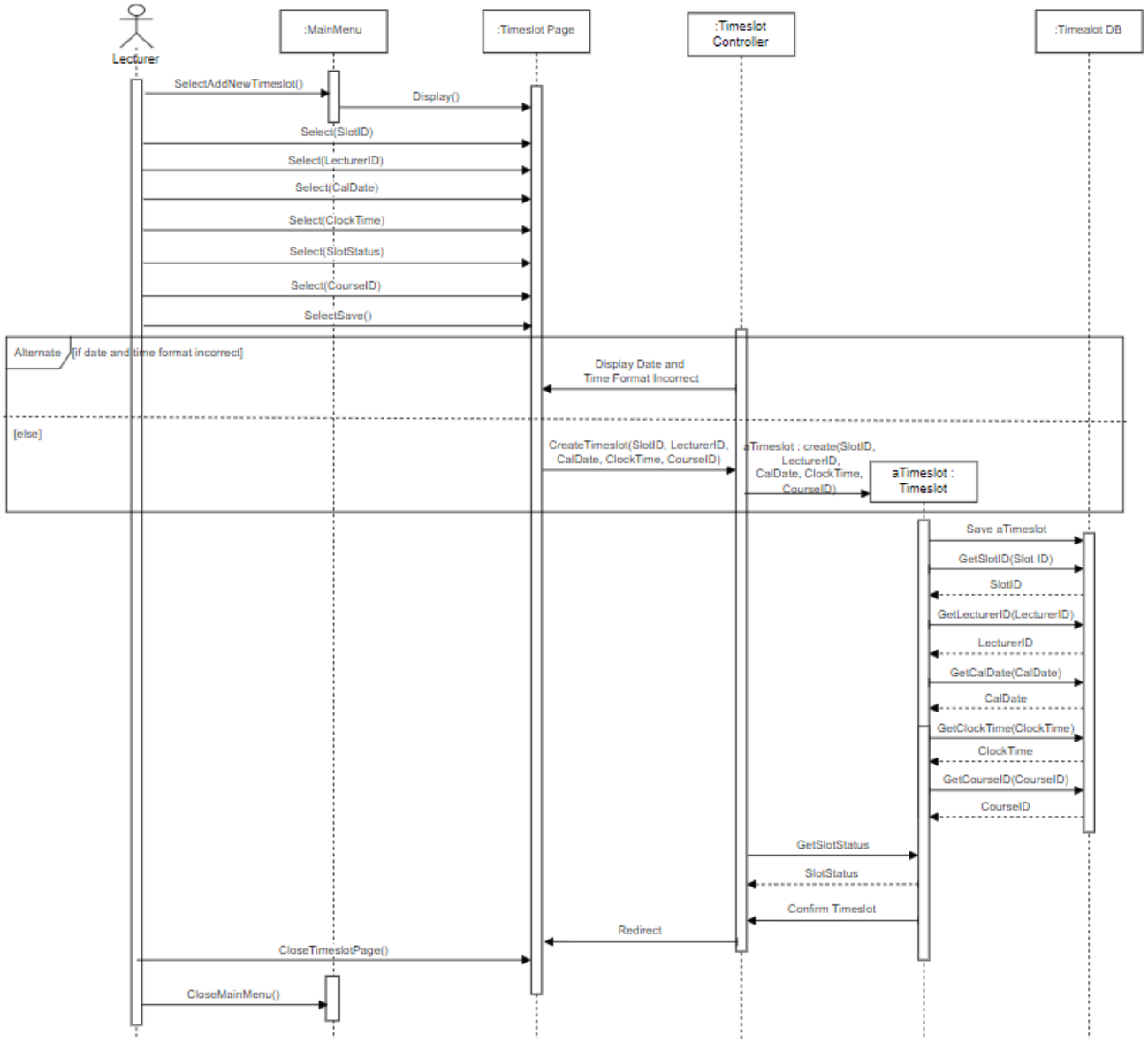
Domain model class diagram



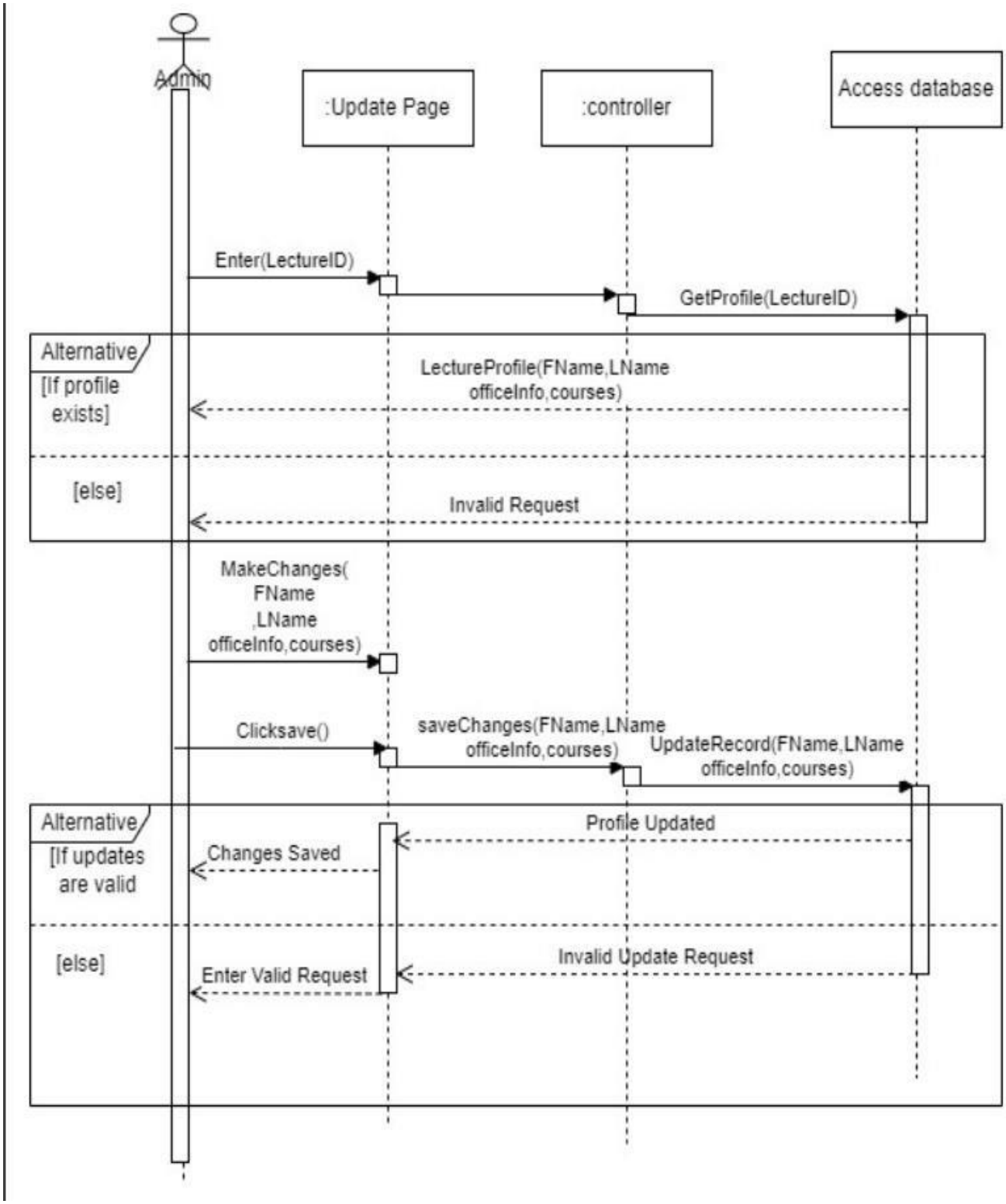
Use case realization (Create booking)



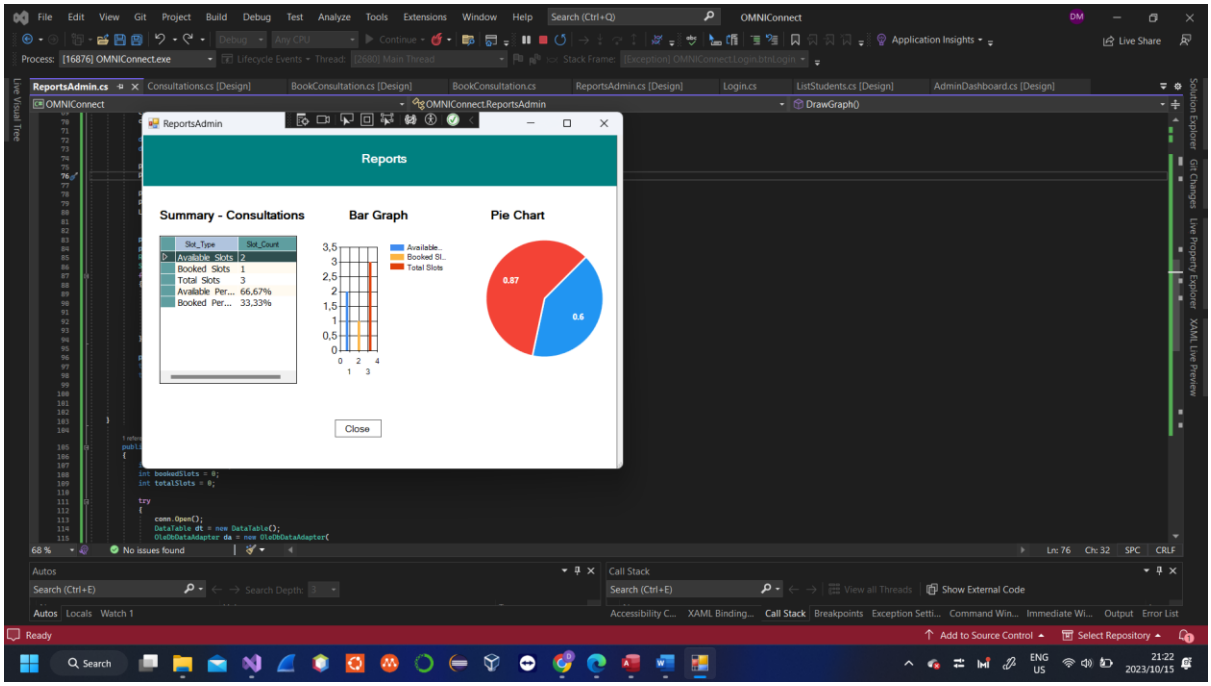
Use case realization (Create timeslots)



Use case realization (Update lecturer profile [Admin])



Report structure



- Summary:
  - Shows total, booked and available timeslots and also the percentage of booked timeslots relative to available timeslots
- Graphical summary:
  - Compares booked, available and total timeslots
- Tools:
  - To generate the reports, we used Datagrid view and Charts, reason being they were the most convenient tools at our disposal

Test cases

- ### Create new booking – student:

Test Case Number	1
Test Scenario	For a student to Book a new consultation
Test Steps	- User navigates to the logs in - User navigates to the Booking page from the Dashboard - User enters Course ID Consultation details - Clicks on the Search to look for available slots - Available slots will be shown on the DataGrid view - A student will select any available slot - Clicks save
Prerequisites	Select all the required fields
Test Data	Course ID, Session type, Attendance type
Values for test data	Course ID: 2 Session type: General Consultation Attendance type: Online
Expected/Intended Results	Upon saving, the user is notified of the successful booking, Then the form is cleared.
Actual Results	As expected
Test Status [Pass/Fail]	Pass

- ### Create timeslots – lecturer:

Test Case Number	2
Test Scenario	For a lecturer to create timeslots
Test Steps	- User logs on to the system - User navigates Consultations>Add New Timeslots - User selects Course Id, Select Date and enter time - Clicks on the Create button
Prerequisites	Valid Time and Date format (12h format) and select Course ID
Test Data	Course ID, Date and Time
Values for test data	Course ID: 2 Date: 12 November 2023 Time: 11:30
Expected/Intended Results	Upon successful CREATE, The Lecturer would be notified and the form will be cleared
Actual Results	As expected
Test Status [Pass/Fail]	Pass

- ## Update student profile – Admin:

Test Case Number	3
Test Scenario	To Update Student Profile as the Administrator
Test Steps	- User logs on to the system - User navigates to Manage Users>Students>Select Student - User enter the details he needs to update - Clicks on the Update button
Prerequisites	Valid User input Data
Test Data	Valid Degree of Study, Year of study, First Name, Last Name, Gender and Email
Values for test data	Degree of Study: BCom Year of study: 3 First Name: Dimakatso Last Name: Matlaila Gender: Male Email:0671750033
Expected/Intended Results	Upon successful update, the application will return to Student View
Actual Results	Not As expected: Error message
Test Status [Pass/Fail]	Fail

Type of Failure: Validation Failure

Solution: The user will be notified which field is not correct, and be allowed to fix it.

Peer review

Team No: _8_ Team Name: _OMNILERTPRIME_____ Date: _15/10/2023_____

Each team is required to complete a peer evaluation. The following aspects of the team's work should be considered when deciding on the percentage contribution to allocate to each member:

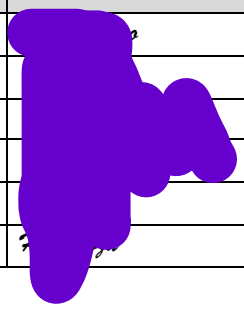
- Quality of individual contribution
- Timely submission of work
- Online Availability and communication

The following principles apply:

1. Every team member must agree on percentage contributions and sign the form.
2. The evaluation is not anonymous, but an adult assessment of contribution.
3. Think carefully about your assessment of your peers. Try to avoid extreme assessments unless they are fully justified.
4. In a team of five (5), if each member contributed equally, then each would be allocated 20%, in a team of six (6) each would be allocated 16.67%.
5. A team member who scores higher than the average will be awarded a project mark that is proportionally above the mark obtained by the team.
6. A team member who scores lower than the average will be awarded a project mark that is proportionally below the mark obtained by the team.
7. Extreme cases, e.g. where a student has made no contribution at all, will be handled on a case by case basis by the project coordinator (lecturer)

Member	Member Name	Contribution (%)
1	Mbongeni Mhlongo	16.67
2	Tristan Reddy	16.67
3	Dimakatso Matlaila	16.67
4	Thandinkosi Nsibande	16.67
5	Sandiso Klaas	16.67
6	Hlamalane Khoza	16.67
Total		**100%**

Team Signatures

Member	Member Signatures
1	
2	
3	
4	
5	
6	

Motivation (where there are issues that need explanation):

Team sign-off

Names	Student Numbers
Dimakatso Matlaila	
Hlamalane Khoza	
Mbongeni Mhlongo	
Sandiso Klaas	
Thandinkosi Nsibande	
Tristan Reddy	