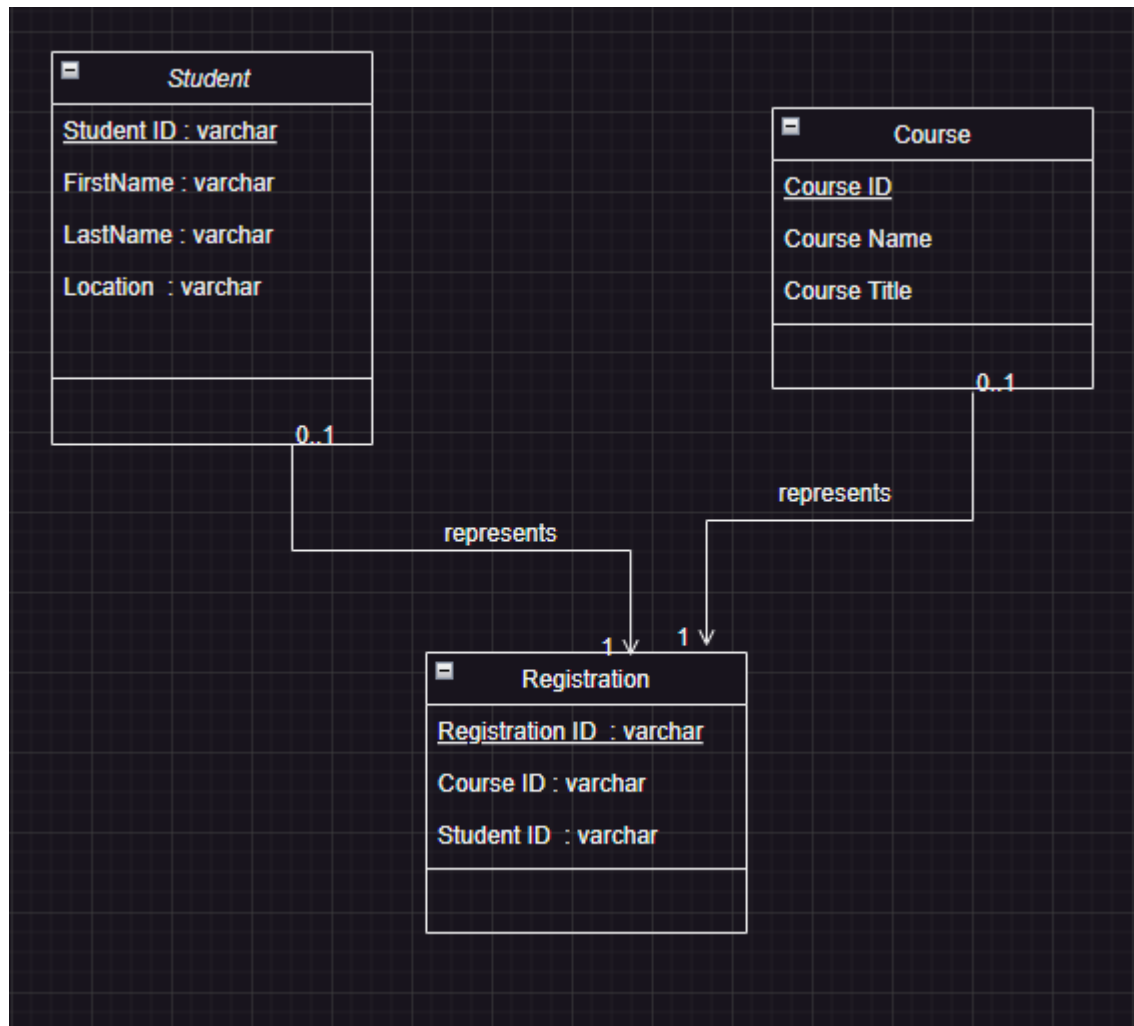


# Assignment 3 Exercise 1

ER Diagram



## Screenshot of Database

The image displays two screenshots of the MySQL Workbench interface, showing SQL queries for database setup.

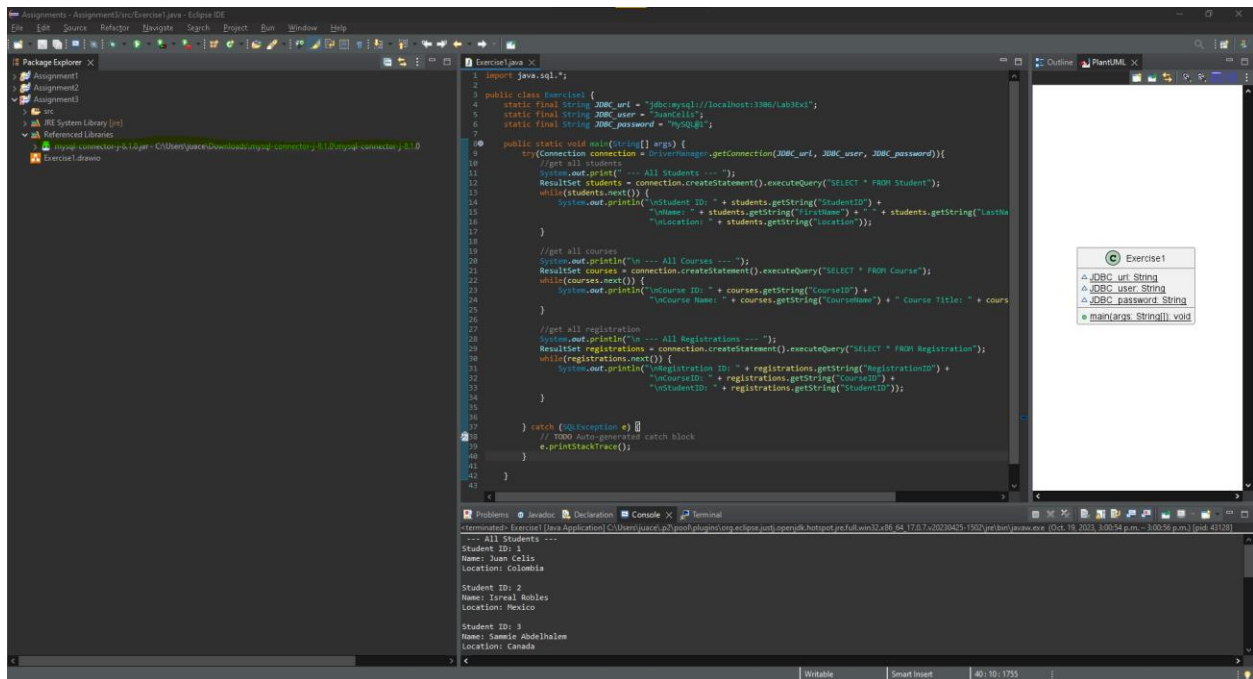
**Top Screenshot:** The SQL editor shows a query to create a database and tables. The query is as follows:

```
15 CourseID varchar(10) primary key,
16 CourseName varchar(50),
17 CourseTitle varchar(50)
18 );
19
20 -- create registration table
21 create table Registration(
22 RegistrationID varchar(10) primary key,
23 CourseID varchar(10),
24 StudentID varchar(10),
25 foreign key (CourseID) references Course(CourseID),
26 foreign key (StudentID) references Student(StudentID)
27 );
28
29 alter table Student
30 change column FirstName FirstName varchar(50);
31
32 -- insert data into Student Table
33 insert into Student(StudentID, FirstName, LastName, Location)
34 values('1', 'Juan', 'Celis', 'Colombia'),
35 ('2', 'Israel', 'Robles', 'Mexico'),
36 ('3', 'Samuel', 'Abdelhalim', 'Canada');
37
38 -- insert into course table
39 insert into Course(CourseID, CourseName, CourseTitle)
40 values('607', 'Arch', 'ENSG'),
41 ('614', 'C++ Analysis', 'ENSG'),
42 ('688', 'Databases', 'ENSG');
43
44 -- insert into registration
45 insert into Registration(RegistrationID, CourseID, StudentID)
46 values('81', '607', '1'),
47 ('82', '614', '2'),
48 ('83', '688', '3');
49
50
51
52
53
```

**Bottom Screenshot:** The SQL editor shows a query to create a database and tables. The query is as follows:

```
1 CREATE database Lab3Ex1;
2
3 USE Lab3Ex1;
4
5 -- create student table
6 create table Student(
7 StudentID varchar(10) primary key,
8 FirstName varchar(50),
9 LastName varchar(50),
10 Location varchar(100)
11 );
12
13 -- create course table
14 create table Course(
15 CourseID varchar(10) primary key,
16 CourseName varchar(50),
17 CourseTitle varchar(50)
18 );
19
20 -- create registration table
21 create table Registration(
22 RegistrationID varchar(10) primary key,
23 CourseID varchar(10),
24 StudentID varchar(10),
25 foreign key (CourseID) references Course(CourseID),
26 foreign key (StudentID) references Student(StudentID)
27 );
28
29 alter table Student
30 change column FirstName FirstName varchar(50);
31
32 -- insert data into Student Table
33 insert into Student(StudentID, FirstName, LastName, Location)
34 values('1', 'Juan', 'Celis', 'Colombia'),
35 ('2', 'Israel', 'Robles', 'Mexico'),
36 ('3', 'Samuel', 'Abdelhalim', 'Canada');
37
38 -- insert into course table
39 insert into Course(CourseID, CourseName, CourseTitle)
40 values('607', 'Arch', 'ENSG'),
41 ('614', 'C++ Analysis', 'ENSG'),
42 ('688', 'Databases', 'ENSG');
```

## Screenshot of JDBC installation.



## Output of Three Queries:

```
<terminated> Exercise1 [Java Application] C:\Users\juace\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.7.v20230425-1502\jre\bin\javaw.exe (Oct 19, 2023, 3:00:54 p.m. - 3:00:56 p.m.) [pid: 43128]
--- All Students ---
Student ID: 1
Name: Juan Celis
Location: Colombia

Student ID: 2
Name: Isreal Robles
Location: Mexico

Student ID: 3
Name: Sammie Abdelhalem
Location: Canada

--- All Courses ---
Course ID: 607
Course Name: Arch Course Title: ENSF

Course ID: 608
Course Name: Databases Course Title: ENSF

Course ID: 614
Course Name: C++ Analysis Course Title: ENSF

--- All Registrations ---
Registration ID: R1
CourseID: 607
StudentID: 1

Registration ID: R2
CourseID: 614
StudentID: 2

Registration ID: R3
CourseID: 608
StudentID: 3
```