CSE-221 Database

University management system

Team members:
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Description:
Our database system stores information on the subsystem of the following subsystems (Class material management, Payment option management, Courses management). Our database system was created to handle all kinds of university management. Our database is required to store in it all student information (Full name, ID, current year, phone numbers) and all staff information, it might be a doctor or TA. The student has the option to enroll in/drop one or more courses and the student can view timetable according to his enrolled courses. Also, the student has the option of paying his invoices for the semester by Mastercard. Students must have an adviser which might be another student. On the other hand, the doctor/TA has access to add attendance for some student in the course he teaches.

Business Rules:
1-The user must be an AIU student/staff member
2-Every course name should be unique on its own.
3-There are no two courses with the same code.
4-The student adviser can be one of the staff members or another student.
5-Every doctor/TA has a unique StaffID.
6-Student only have timetable when enroll to courses.
7-The student must pay the semester fees at the beginning of the semester to add courses to the new semester.

8-Only doctors can drop courses for a student or the student himself.

Queries:

1-Display all doctors IDs who teach "database".

2-Display all phone numbers of a certain student id.
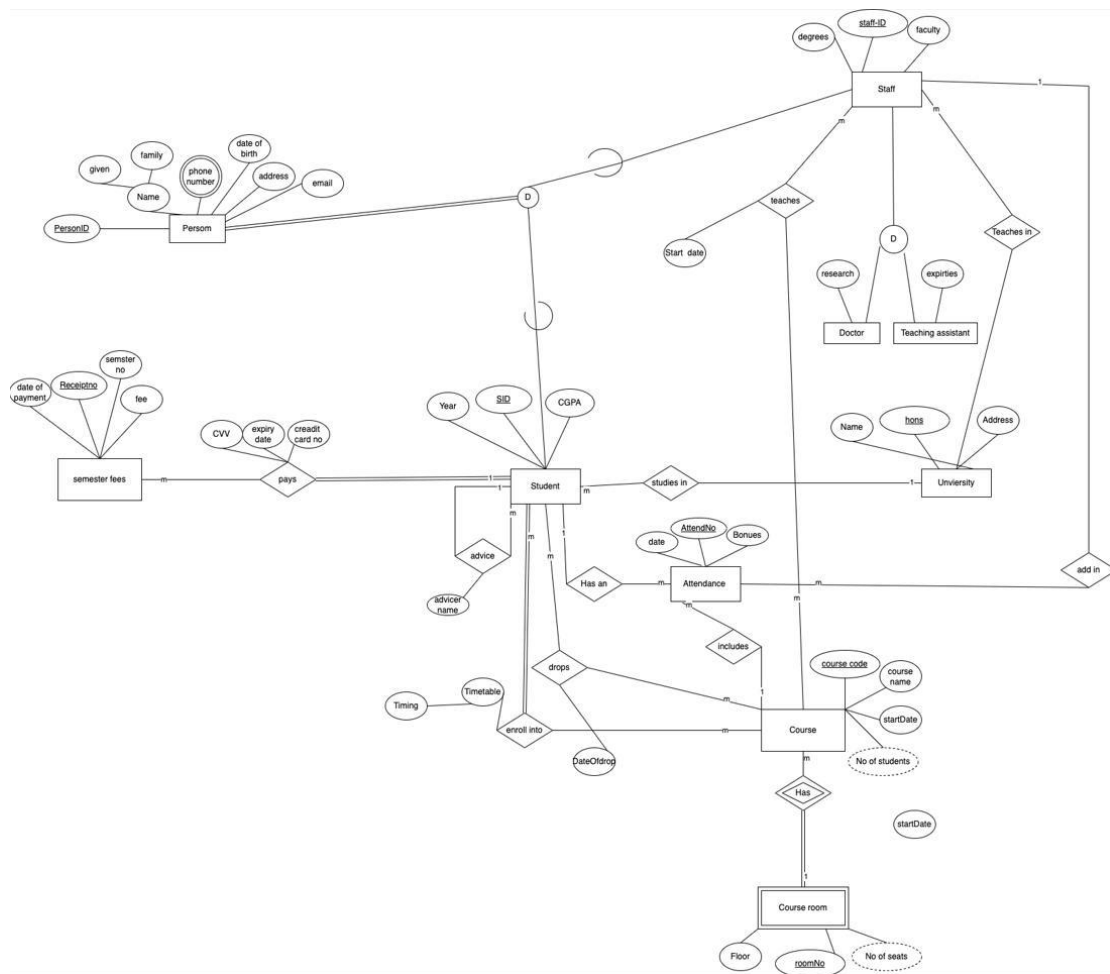
3-Display specific student id semester fee payment information.

4-Display list of students' ids who pay for the 1st semester fees for a specific semester.

5- Display all students who dropped a certain course with courseID.

6-Display specific doctor ID all courses he/she teaches.

7-Display all students names whose CGPA is more than 3.0.

Relational Schema:

Person (<u>PersonID</u> , givenName,familyName,date of birth, address, email)

Phone (<u>PhoneID,PhoneNumber,PersonID</u>)
Phone(Person ID) is foreign key references from Person(Person ID)

Staff (<u>PersonID,Staff-ID</u>,dgrees,faculty,<u>hons</u>)
Staff(Person ID) is foreign key references from Person(Person ID)
Staff(hons) is foreign key references from University(hons)

Doctor (<u>Staff-ID</u>,research)
Doctor(Staff ID) is foreign key references from Staff(Staff ID)

Teaching assistant (<u>Staff-ID</u>,expirties)Teaching assistant(Staff ID) is foreign key references from Staff(Staff ID)

University (<u>hons,</u> Address, Name)

Student(<u>PersonID,SID</u>,CGPA,<u>UniHons</u>)
Advisor(<u>AdvisorID,AID</u>,AdvisorName,AdvisorRoom)
Advisor(AdvisorID) references Student(SID)

Student(UniHons) is foreign key references from University (Hons).

Course(Coursecode,coursename,satetdate,roomno)
Course(Roomno) is foreign key references from Courseroom(Roomno).

Course Room(roomno,floor)

Teaches(Start date,coursecode,staff Id)
Teaches(courseCode) is foreign key references from
course(coursecode)
Teaches(StaffID) is foreign key references from Student(StaffID).

Enroll into(Day,timing,SID,course code)
Enroll into(SID) is foreign key references from Student.
Enroll into (Course code) is foreign key references from Course.

Drop(Date of drop, course code , SID)

Drop(SID) is foreign key references from Student.
Drop(Course code) is foreign key Drop references from Course.

Semester fees (recipt no,fee,date of payment,semesterno,CVV,expiry date,credit card no , SID)

SemesterFees(SID) is foreign key references from Student(SID).

Attendence(Attendno,bonues,date,SID,course code ,Staff ID)

Attendance(SID) is foreign key references from Student(SID).
Attendance (Course code) is foreign key references from Course.
Attendance (Staff ID) if foreign key references from Staff.

My SQL:

1.Create Tables:
create database universitysystem;
Use universitysystem;

create table Person(
PersonID int primary key ,
GivenName varchar(30),
FamilyName varchar(30),
DateOfBirth varchar(30),
Address varchar(30),
personEmail varchar(30));

PersonID	GivenName	FamilyName	DateOfBirth	Address	personEmail
3020100	Bardees	Khaled	2/5/1994	Sidibeshr	Bardees.Khaled@Aiu.edu.eg
3020101	Aml	Hanafy	3/4/1995	SidiGaber	Aml.Hanafy@Aiu.edu.eg
3020102	Ahmed	Fayez	12/7/1996	Spourting	Ahmed.Fayez@Aiu.edu.eg
3020103	Ahmed	Shoukry	3/7/1990	Agamy	Ahmed.Shoukry@Aiu.edu.eg
3020104	Mariam	Boules	7/8/1995	Smouha	Mariam.Boules@Aiu.edu.eg
3020126	Hana	Mohamed	25/6/2003	smouha	hana.mohamed.2022@Aiu.edu.eg
3020134	ahmed	Gabal	2/4/2003	cairo	Ahmed.Gabal.2022@Aiu.edu.eg
3020166	aysha	Mohamed	22/3/1998	smouha	aishamuhammed.2022@aiu.edu.eg
3020167	salma	Hashem	9/7/2003	smouha	salma.hashem@Aiu.edu.eg
3020168	Mai	ahmed	8/9/2003	Smouha	Mai.ahmed.2022@Aiu.edu.eg
3020200	ola	Abdelaziz	10/11/2003	Roushdy	ola.abdelaziz.2022@Aiu.edu.eg
3020230	sherouk	Mohamed	2/3/2003	SidiGaber	sherouk.mohamed@Aiu.edu.eg
3020234	Raghdan	Mohamed	4/7/2004	smouha	Raghdan.mohamed@Aiu.edu.eg
3020300	Laila	shokry	12/6/1980	KafrAbdou	laila.shoukry@Aiu.edu.eg
3020301	Ahmed	shalaby	11/4/1980	Agamy	Ahmed.shalaby@Aiu.edu.eg
3020302	Islam	Elgedawy	12/3/1980	Alamien	Islam.Elgedawy@Aiu.edu.eg
3020303	Islam	Elgabany	11/9/1980	SidiGaber	Islam.Elgabany@Aiu.edu.eg
3020304	Ashraf	Said	7/8/1980	Spourting	Ashraf.Said@Aiu.edu.eg
3020435	Ayten	Hossam	15/6/2003	Kiliopatra	Ayten.zoweil.2022@aiu.edu.eg
3020534	Ahella	Ali	8/5/2003	SidiGaber	Ahella.mohamed.2022@aiu.edu.eg
NULL	NULL	NULL	NULL	NULL	NULL

create table CourseRoom(
RoomNumber int primary key,
floorr varchar(30));

create table University(
Hons varchar(30) primary key,
Address varchar(30),
Namee varchar(30));

create table Phone(
PhoneID int primary key,
PhoneNum varchar(30),
PhonePersonID int ,
foreign key (PhonePersonID) references Person(PersonID));

PhoneID	PhoneNum	PhonePersonID
9	01100	3020166
10	01200	3020534
11	01201	3020435
12	01202	3020126
13	01203	3020134
14	01204	3020200
15	01205	3020230
16	01206	3020234
17	01207	3020167
18	01208	3020168
19	01209	3020300
20	01210	3020301
21	01211	3020302
22	01212	3020303
23	01213	3020304
24	01214	3020100
25	01215	3020101
26	01216	3020102
27	01217	3020103
28	01218	3020104
29	01311	3020167
30	01312	3020234
31	01313	3020435
32	01314	3020134
33	01315	3020200
NULL	NULL	NULL

Phone 63 ×

create table Staff(
StaffID varchar(30) Primary key,
StaffPersonID int,
foreign key (StaffPersonID) references Person(PersonID),
Degrees varchar(30),
Faculty varchar(30),
StaffHons varchar(30),
foreign key (StaffHons) references University(Hons));

	StaffID	StaffPersonID	Degrees	Faculty	StaffHons
▶	123	3020300	doctoral degree	ComputerScienceAndEngineering	clean award
	124	3020301	doctoral degree	ComputerScienceAndEngineering	clean award
	125	3020302	doctoral degree	ComputerScienceAndEngineering	clean award
	126	3020303	doctoral degree	ComputerScienceAndEngineering	clean award
	127	3020304	doctoral degree	ComputerScienceAndEngineering	clean award
	128	3020100	master's degree	ComputerScienceAndEngineering	clean award
	129	3020101	master's degree	ComputerScienceAndEngineering	clean award
	130	3020102	master's degree	ComputerScienceAndEngineering	clean award
	131	3020103	master's degree	ComputerScienceAndEngineering	clean award
	132	3020104	master's degree	ComputerScienceAndEngineering	clean award
*	NULL	NULL	NULL	NULL	NULL

Create table Doctor(
DoctorID varchar(30),
foreign key (DoctorID) references Staff(StaffID),
Research varchar(30));

	DoctorID	Research
▶	124	Software Importance
	125	Virtual reality
	126	Computer Algorithms
	127	Neuron networks
	123	Machine learning

create table TeachingAssistant(
TaID varchar(30),
foreign key (TaID) references Staff(StaffID),
Expirties varchar(30));

	TaID	Expirties
▶	128	Types of Programming
	129	Java Programming
	130	Python vs Java
	131	C++ VS C
	132	Importance of AI

create table Advisor(
AdvisorID varchar(30),
AID varchar(30) primary key,
AdvisorName varchar(30),
AdvisorRoom varchar(30),
foreign key (AdvisorID) references Student(SID));

AdvisorID	AID	AdvisorName	AdvisorRoom
21100777	0001	Adviser1	Room1
21100798	0002	Adviser2	Room2
21100780	0003	Adviser3	Room3
21100878	0004	Adviser4	Room4
21100790	0005	Adviser5	Room5
21100793	0006	Adviser1	Room6
21100780	0007	Adviser2	Room7
21100795	0008	Adviser3	Room8
21100784	0009	Adviser4	Room9
21100781	0010	Adviser5	Room10
NULL	NULL	NULL	NULL

create table Course(
CourseCode varchar(30) primary key,
CourseName varchar(30) unique not null,
StartDate varchar(30),
RoomNumber int,
foreign key (RoomNumber) references CourseRoom(RoomNumber));

StartDate	CourseCode	StaffID
4/12/2020	CSE-111	131
4/12/2020	CSE-111	132
2/3/2020	CSE-112	123
2/3/2020	CSE-112	124
2/3/2020	CSE-112	128
8/9/2020	CSE-221	125
8/9/2020	CSE-221	126
8/9/2020	CSE-221	127
8/9/2020	CSE-251	127
2/3/2020	CSE-251	128
4/12/2020	CSE-251	129
4/12/2020	MAT-312	124
4/12/2020	MAT-312	129
NULL	NULL	NULL

create table Teaches (
StartDate varchar(30),
CourseCode varchar(30),

StaffID varchar(30),
primary key(CourseCode,StaffID),
foreign key (CourseCode) references Course(CourseCode),
foreign key (StaffID) references Staff(StaffID));

AdvisorID	AID	AdvisorName	AdvisorRoom
21100777	0001	Adviser1	Room1
21100798	0002	Adviser2	Room2
21100780	0003	Adviser3	Room3
21100878	0004	Adviser4	Room4
21100790	0005	Adviser5	Room5
21100793	0006	Adviser1	Room6
21100780	0007	Adviser2	Room7
21100795	0008	Adviser3	Room8
21100784	0009	Adviser4	Room9
21100781	0010	Adviser5	Room10
NULL	NULL	NULL	NULL

create table Student(
PersonID int,
SID varchar(30)primary key,
CGPA varchar(30),
uniHons varchar(30),
foreign key (PersonID) references Person(PersonID),
foreign key (uniHons) references University(Hons));

PersonID	SID	CGPA	uniHons
3020166	21100777	3.5999	clean award
3020230	21100780	3.4898	clean award
3020168	21100781	3.3998	clean award
3020167	21100784	3.8998	clean award
3020435	21100788	2.5999	clean award
3020134	21100790	3.1998	clean award
3020200	21100793	3.8998	clean award
3020234	21100795	3.5798	clean award
3020534	21100798	2.6999	clean award
3020126	21100878	3.2998	clean award
NULL	NULL	NULL	NULL

create table EnrollInto(
Dayy varchar(30),
Timming varchar(30),
SID varchar(30),
CourseCode varchar(30),
EID varchar(30) primary key,

foreign key (CourseCode) references Course(CourseCode),
foreign key (SID) references Student (SID));

Dayy	Timming	SID	CourseCode	EID
Tuesday	10:30	21100878	MAT-312	10
Monday	10:30	21100777	MAT-312	12
Monday	10:30	21100777	MAT-312	15
Monday	10:30	21100777	MAT-312	19
Tuesday	10:30	21100878	MAT-312	20
Sunday	10:30	21100793	MAT-312	21
NULL	NULL	NULL	NULL	NULL

create table Dropp(
DateOfDrop varchar(30),
CourseCode varchar(30),
SID varchar(30),
foreign key (SID) references Student(SID),
foreign key (CourseCode) references Course (CourseCode));

DateOfDrop	CourseCode	SID
1/2/2022	CSE_121	21100777
10/2/2022	MAT-312	21100878
1/2/2022	CSE_121	21100777
10/2/2022	MAT-312	21100878
1/2/2022	CSE_121	21100777
10/2/2022	MAT-312	21100878
12/1/2022	CSE-111	21100793

create table SemesterFees(
 reciptNo int primary key ,
 fee varchar(30),
 dateOfPayment varchar(30),
 semsterNo varchar(30),
 cvv int,

ExpiryDate varchar(30),
CreditCardNo varchar(30),
SID varchar(30) unique ,
foreign key (SID) references Student(SID));

reciptNo	fee	dateOfPayment	semsterNo	cvv	ExpiryDate	CreditCardNo	SID
390	37,000	20/10/2022	1st	567	21/12/2022	2345	21100777
392	37,000	20/10/2022	2st	567	21/12/2022	2345	21100784
393	37,000	20/10/2022	1st	567	21/12/2022	2345	21100795
394	37,000	20/10/2022	2st	567	21/12/2022	2345	21100781
395	37,000	20/10/2022	1st	567	21/12/2022	2345	21100780
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

create table Attendence(
  Attendno int ,
  bonus int,
  SID varchar(30),
  CourseCode varchar(30),
  StaffID varchar(30),
  foreign key (SID) references Student(SID),
  foreign key (CourseCode) references Course(CourseCode),
  foreign key (StaffID) references Staff(StaffID));

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Attendno	bonus	SID	CourseCode	StaffID
1	0	21100777	CSE-112	123
2	1	21100798	CSE-112	123
3	0	21100788	CSE-112	123
4	0	21100878	CSE-112	123
5	1	21100790	CSE-112	123
6	0	21100793	CSE-112	123
7	0	21100780	CSE-112	123
8	1	21100795	CSE-112	123
9	0	21100784	CSE-112	123
10	2	21100781	CSE-112	123
1	2	21100777	MAT-312	124
2	0	21100798	MAT-312	124
3	3	21100788	MAT-312	124
4	1	21100878	MAT-312	124
5	0	21100790	MAT-312	124
6	0	21100793	MAT-312	124
7	2	21100780	MAT-312	124
8	1	21100795	MAT-312	124
9	3	21100784	MAT-312	124
10	1	21100781	MAT-312	124
1	1	21100777	CSE-111	125
2	0	21100798	CSE-111	125
3	1	21100788	CSE-111	125
4	3	21100878	CSE-111	125
5	1	21100790	CSE-111	125

Attendno	bonus	SID	CourseCode	StaffID
6	0	21100793	CSE-111	125
7	5	21100780	CSE-111	125
8	2	21100795	CSE-111	125
9	1	21100784	CSE-111	125
10	1	21100781	CSE-111	125
1	0	21100777	CSE-221	126
2	0	21100798	CSE-221	126
3	1	21100788	CSE-221	126
4	0	21100878	CSE-221	126
5	1	21100790	CSE-221	126
6	0	21100793	CSE-221	126
7	0	21100780	CSE-221	126
8	3	21100795	CSE-221	126
9	1	21100784	CSE-221	126
10	2	21100781	CSE-221	126
1	2	21100777	CSE-251	127
2	1	21100798	CSE-251	127
3	0	21100788	CSE-251	127
4	1	21100878	CSE-251	127
5	2	21100790	CSE-251	127
6	1	21100793	CSE-251	127
7	1	21100780	CSE-251	127
8	0	21100795	CSE-251	127
9	1	21100784	CSE-251	127
10	1	21100781	CSE-251	127

2. Insert:

2.1. person Insert:

insert into
Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,
personEmail) values (3020166,"aysha",
"Mohamed","22/3/1998","smouha","aishamuhammed.2022@
aiu.edu.eg");
insert into
Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,
personEmail) values

```sql
(3020534,"Ahella","Ali","8/5/2003","SidiGaber","Ahella.mohamed.2022@aiu.edu.eg");
insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values (3020435,"Ayten" ,"Hossam", "15/6/2003" ,"Kiliopatra","Ayten.zoweil.2022@aiu.edu.eg");
insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values (3020126,"Hana","Mohamed","25/6/2003","smouha","hana.mohamed.2022@Aiu.edu.eg");
insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values (3020134,"ahmed","Gabal","2/4/2003","cairo","Ahmed.Gabal.2022@Aiu.edu.eg");
insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values (3020200,"ola","Abdelaziz","10/11/2003","Roushdy","ola.abdelaziz.2022@Aiu.edu.eg");
insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values (3020230,"sherouk","Mohamed","2/3/2003","SidiGaber","sherouk.mohamed@Aiu.edu.eg");
insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values (3020234,"Raghdan","Mohamed","4/7/2004","smouha","Raghdan.mohamed@Aiu.edu.eg");
insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values
```

```sql
(3020167,"salma","Hashem","9/7/2003","smouha","salma.hashem@Aiu.edu.eg");
insert into
Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values
(3020168,"Mai","ahmed","8/9/2003","Smouha","Mai.ahmed.2022@Aiu.edu.eg");
insert into
Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values
(3020300,"Laila","shokry","12/6/1980","KafrAbdou","laila.shoukry@Aiu.edu.eg");
insert into
Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values
(3020301,"Ahmed","shalaby","11/4/1980","Agamy","Ahmed.shalaby@Aiu.edu.eg");
insert into
Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values
(3020302,"Islam","Elgedawy","12/3/1980","Alamien","Islam.Elgedawy@Aiu.edu.eg");
insert into
Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values
(3020303,"Islam","Elgabany","11/9/1980","SidiGaber","Islam.Elgabany@Aiu.edu.eg");
insert into
Person(PersonID,GivenName,FamilyName,DateOfBirth,Address,personEmail) values
(3020304,"Ashraf","Said","7/8/1980","Spourting","Ashraf.Said@Aiu.edu.eg");
```

insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address, personEmail) values (3020100,"Bardees","Khaled","2/5/1994","Sidibeshr","Bardees. Khaled@Aiu.edu.eg");

insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address, personEmail) values (3020101,"Aml","Hanafy","3/4/1995","SidiGaber","Aml.Hanafy @Aiu.edu.eg");

insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address, personEmail) values (3020102,"Ahmed","Fayez","12/7/1996","Spourting","Ahmed.F ayez@Aiu.edu.eg");

insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address, personEmail) values (3020103,"Ahmed","Shoukry","3/7/1990","Agamy","Ahmed.Sh oukry@Aiu.edu.eg");

insert into Person(PersonID,GivenName,FamilyName,DateOfBirth,Address, personEmail) values (3020104,"Mariam","Boules","7/8/1995","Smouha","Mariam.B oules@Aiu.edu.eg");

2.2. CourseRoom Insert:

insert into CourseRoom(RoomNumber,floorr) values (205,"Ground");
insert into CourseRoom(RoomNumber,floorr) values (206,"Ground floor");
insert into CourseRoom(RoomNumber,floorr) values (207,"Ground floor");

```
insert into CourseRoom(RoomNumber,floorr) values
(208,"Ground floor");
insert into CourseRoom(RoomNumber,floorr) values
(209,"Ground floor");
insert into CourseRoom(RoomNumber,floorr) values
(210,"Ground floor");

insert into CourseRoom(RoomNumber,floorr) values(301,"1st
floor");
insert into CourseRoom(RoomNumber,floorr) values(302,"1st
floor");
insert into CourseRoom(RoomNumber,floorr) values(303,"1st
floor");
insert into CourseRoom(RoomNumber,floorr) values(304,"1st
floor");
insert into CourseRoom(RoomNumber,floorr) values(305,"1st
floor");


insert into CourseRoom(RoomNumber,floorr) values(401,"2nd
floor");
insert into CourseRoom(RoomNumber,floorr) values(402,"2nd
floor");
insert into CourseRoom(RoomNumber,floorr) values(403,"2nd
floor");
insert into CourseRoom(RoomNumber,floorr) values(404,"2nd
floor");
insert into CourseRoom(RoomNumber,floorr) values(405,"2nd
floor");
```

2.3. University Insert:

```
insert into University(Hons,Address,Namee) values ("clean
award","Alalamien street","AIU");
```

2.4. Course Insert:

```sql
insert into
Course(CourseCode,CourseName,StartDate,RoomNumber)
values ("CSE_121","AI","1/4/2022",205);
insert into
Course(CourseCode,CourseName,StartDate,RoomNumber)
values ("CSE-112"," Algorithms","6/12/2022",207);
insert into
Course(CourseCode,CourseName,StartDate,RoomNumber)
values ("MAT-312","Differential Equations","1/9/2022",301);
insert into
Course(CourseCode,CourseName,StartDate,RoomNumber)
values ("CSE-111","Data Structures","4/3/2022",401);
insert into
Course(CourseCode,CourseName,StartDate,RoomNumber)
values ("CSE-221","Database systems","19/5/2022",208);
insert into
Course(CourseCode,CourseName,StartDate,RoomNumber)
values ("CSE-251","Software Engineering","2/12/2022",304);
```

2.5. Student Insert:

```sql
insert into Student(PersonID,SID,CGPA,uniHons) values
(3020166,"21100777","3.5999","clean award");
insert into Student(PersonID,SID,CGPA,uniHons) values
(3020534,"21100798","2.6999","clean award");
insert into Student(PersonID,SID,CGPA,uniHons) values
(3020435,"21100788","2.5999","clean award");
insert into Student(PersonID,SID,CGPA,uniHons) values
(3020126,"21100878","3.2998","clean award");
insert into Student(PersonID,SID,CGPA,uniHons) values
(3020134,"21100790","3.1998","clean award");
```

insert into Student(PersonID,SID,CGPA,uniHons) values
(3020200,"21100793","3.8998","clean award");
insert into Student(PersonID,SID,CGPA,uniHons) values
(3020230,"21100780","3.4898","clean award");
insert into Student(PersonID,SID,CGPA,uniHons) values
(3020234,"21100795","3.5798","clean award");
insert into Student(PersonID,SID,CGPA,uniHons) values
(3020167,"21100784","3.8998","clean award");
insert into Student(PersonID,SID,CGPA,uniHons) values
(3020168,"21100781","3.3998","clean award");

2.6.   Staff Insertion:

insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("123","3020300","doctoral
degree" ,"ComputerScienceAndEngineering","clean award");
insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("124","3020301","doctoral
degree" ,"ComputerScienceAndEngineering","clean award");
insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("125","3020302","doctoral
degree" ,"ComputerScienceAndEngineering","clean award");
insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("126","3020303","doctoral
degree" ,"ComputerScienceAndEngineering","clean award");
insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("127","3020304","doctoral
degree" ,"ComputerScienceAndEngineering","clean award");

insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("128","3020100","master's
degree" ,"ComputerScienceAndEngineering","clean award");
insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("129","3020101","master's
degree" ,"ComputerScienceAndEngineering","clean award");
insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("130","3020102","master's
degree" ,"ComputerScienceAndEngineering","clean award");
insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("131","3020103","master's
degree" ,"ComputerScienceAndEngineering","clean award");
insert into
Staff(StaffID,StaffPersonID,Degrees,Faculty,StaffHons) values
("132","3020104","master's
degree" ,"ComputerScienceAndEngineering","clean award");

2.7. Doctor Insert:

insert into Doctor(DoctorID,Research) values ("123","Machine
learning");
insert into Doctor(DoctorID,Research) values ("124","Software
Importance");
insert into Doctor(DoctorID,Research) values ("125","Virtual
reality");
insert into Doctor(DoctorID,Research) values ("126","Computer
Algorithms");
insert into Doctor(DoctorID,Research) values ("127","Neuron
networks");

2.8. TeachingAssistant Insert:

insert into TeachingAssistant(TaID,Expirties) values ("128"," Types of Programming");
insert into TeachingAssistant(TaID,Expirties) values ("129","Java Programming");
insert into TeachingAssistant(TaID,Expirties) values ("130","Python vs Java");
insert into TeachingAssistant(TaID,Expirties) values ("131","C++ VS C");
insert into TeachingAssistant(TaID,Expirties) values ("132","Importance of AI");

2.9. Dropp Insert:

insert into Dropp (DateOfDrop,CourseCode,SID) values ("1/2/2022","CSE_121","21100777");
insert into Dropp (DateOfDrop,CourseCode,SID) values ("10/2/2022","MAT-312","21100878");
insert into Dropp (DateOfDrop,CourseCode,SID) values ("12/1/2022","CSE-111","21100793");
insert into Dropp (DateOfDrop,CourseCode,SID) values ("1/3/2022","CSE-221","21100780");
insert into Dropp (DateOfDrop,CourseCode,SID) values ("10/2/2022","CSE_121","21100784");
insert into Dropp (DateOfDrop,CourseCode,SID) values ("18/2/2022","CSE_121","21100795");
insert into Dropp (DateOfDrop,CourseCode,SID) values ("16/2/2022","CSE_121","21100781");
insert into Dropp (DateOfDrop,CourseCode,SID) values ("20/2/2022","CSE_121","21100780");

2.10. Phone Insert:

insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("9","01100",3020166);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("10","01200",3020534);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("11","01201",3020435);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("12","01202",3020126);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("13","01203",3020134);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("14","01204",3020200);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("15","01205",3020230);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("16","01206",3020234);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("17","01207",3020167);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("18","01208",3020168);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("19","01209",3020300);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("20","01210",3020301);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("21","01211",3020302);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("22","01212",3020303);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("23","01213",3020304);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values ("24","01214",3020100);

insert into Phone(PhoneID,PhoneNum,PhonePersonID) values
("25","01215",3020101);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values
("26","01216",3020102);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values
("27","01217",3020103);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values
("28","01218",3020104);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values
("29","01311",3020167);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values
("30","01312",3020234);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values
("31","01313",3020435);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values
("32","01314",3020134);
insert into Phone(PhoneID,PhoneNum,PhonePersonID) values
("33","01315",3020200);

2.11. Teaches Insert:

insert into Teaches(StartDate,CourseCode,StaffID) values
("2/3/2020","CSE-112","128");
insert into Teaches(StartDate,CourseCode,StaffID) values
("4/12/2020","MAT-312","129");
insert into Teaches(StartDate,CourseCode,StaffID) values
("2/3/2020","CSE-112","123");
insert into Teaches(StartDate,CourseCode,StaffID) values
("2/3/2020","CSE-112","124");
insert into Teaches(StartDate,CourseCode,StaffID) values
("4/12/2020","MAT-312","124");
insert into Teaches(StartDate,CourseCode,StaffID) values
("8/9/2020","CSE-221","125");

insert into Teaches(StartDate,CourseCode,StaffID) values
("8/9/2020","CSE-221","126");
insert into Teaches(StartDate,CourseCode,StaffID) values
("8/9/2020","CSE-221","127");
insert into Teaches(StartDate,CourseCode,StaffID) values
("8/9/2020","CSE-251","127");
insert into Teaches(StartDate,CourseCode,StaffID) values
("2/3/2020","CSE-251","128");
insert into Teaches(StartDate,CourseCode,StaffID) values
("4/12/2020","CSE-251","129");
insert into Teaches(StartDate,CourseCode,StaffID) values
("4/12/2020","CSE-111","132");
insert into Teaches(StartDate,CourseCode,StaffID) values
("4/12/2020","CSE-111","131");

2.12. EnrollInto Insert:

insert into EnrollInto(Dayy,Timming,SID,CourseCode,EID) values
("Monday","10:30","21100777","MAT-312","19");
insert into EnrollInto(Dayy,Timming,SID,CourseCode,EID) values
("sunday","12:30","21100780","CSE_121","13");
insert into EnrollInto(Dayy,Timming,SID,CourseCode,EID) values
("Tuesday","10:30","21100878","MAT-312","20");
insert into EnrollInto(Dayy,Timming,SID,CourseCode,EID) values
("Wednesday","12:30","21100795","CSE_121","11");
insert into EnrollInto(Dayy,Timming,SID,CourseCode,EID) values
("Sunday","10:30","21100793","MAT-312","21");
insert into EnrollInto(Dayy,Timming,SID,CourseCode,EID) values
("Thursday","12:30","21100784","CSE_121","17");

2.13. Advisor Insert:

```sql
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100777","0001","Adviser1","Room1");
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100798","0002","Adviser2","Room2");
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100780","0003","Adviser3","Room3");
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100878","0004","Adviser4","Room4");
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100790","0005","Adviser5","Room5");
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100793","0006","Adviser1","Room6");
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100780","0007","Adviser2","Room7");
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100795","0008","Adviser3","Room8");
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100784","0009","Adviser4","Room9");
insert into Advisor(AdvisorID,AID,AdvisorName,AdvisorRoom)
values ("21100781","0010","Adviser5","Room10");
```

2.14. SemesterFees Insert:

```sql
insert into
SemesterFees(reciptNo,fee,dateOfPayment,semsterNo,cvv,Expi
ryDate,CreditCardNo,SID) values
(390,"37,000","20/10/2022","1st",567,"21/12/2022","2345","2
1100777");
insert into
SemesterFees(reciptNo,fee,dateOfPayment,semsterNo,cvv,Expi
ryDate,CreditCardNo,SID) values
```

(392,"37,000","20/10/2022","2st",567,"21/12/2022","2345","2
1100784");
insert into
SemesterFees(reciptNo,fee,dateOfPayment,semsterNo,cvv,Expi
ryDate,CreditCardNo,SID) values
(393,"37,000","20/10/2022","1st",567,"21/12/2022","2345","2
1100795");
insert into
SemesterFees(reciptNo,fee,dateOfPayment,semsterNo,cvv,Expi
ryDate,CreditCardNo,SID) values
(394,"37,000","20/10/2022","2st",567,"21/12/2022","2345","2
1100781");
insert into
SemesterFees(reciptNo,fee,dateOfPayment,semsterNo,cvv,Expi
ryDate,CreditCardNo,SID) values
(395,"37,000","20/10/2022","1st",567,"21/12/2022","2345","2
1100780");

2.15. Attendance Insert:

insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(1,0,"21100777","CSE-112","123");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(2,1,"21100798","CSE-112","123");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(3,0,"21100788","CSE-112","123");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(4,0,"21100878","CSE-112","123");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(5,1,"21100790","CSE-112","123");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(6,0,"21100793","CSE-112","123");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(7,0,"21100780","CSE-112","123");

```sql
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(8,1,"21100795","CSE-112","123");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(9,0,"21100784","CSE-112","123");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(10,2,"21100781","CSE-112","123");


insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(1,2,"21100777","MAT-312","124");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(2,0,"21100798","MAT-312","124");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(3,3,"21100788","MAT-312","124");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(4,1,"21100878","MAT-312","124");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(5,0,"21100790","MAT-312","124");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(6,0,"21100793","MAT-312","124");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(7,2,"21100780","MAT-312","124");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(8,1,"21100795","MAT-312","124");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(9,3,"21100784","MAT-312","124");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(10,1,"21100781","MAT-312","124");

insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(1,1,"21100777","CSE-111","125");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(2,0,"21100798","CSE-111","125");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(3,1,"21100788","CSE-111","125");
```
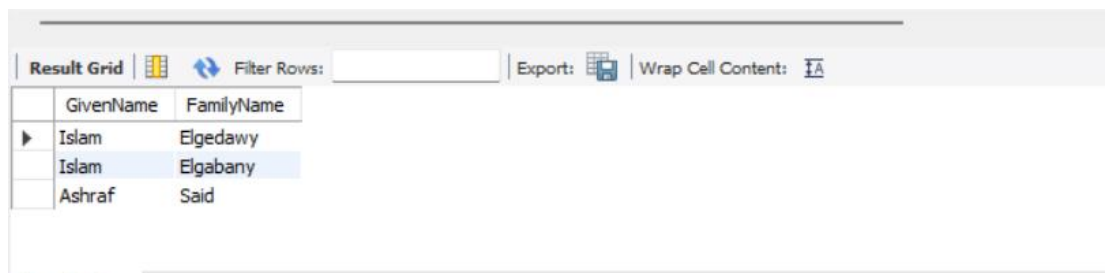
```sql
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(4,3,"21100878","CSE-111","125");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(5,1,"21100790","CSE-111","125");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(6,0,"21100793","CSE-111","125");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(7,5,"21100780","CSE-111","125");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(8,2,"21100795","CSE-111","125");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(9,1,"21100784","CSE-111","125");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(10,1,"21100781","CSE-111","125");

insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(1,0,"21100777","CSE-221","126");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(2,0,"21100798","CSE-221","126");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(3,1,"21100788","CSE-221","126");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(4,0,"21100878","CSE-221","126");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(5,1,"21100790","CSE-221","126");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(6,0,"21100793","CSE-221","126");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(7,0,"21100780","CSE-221","126");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(8,3,"21100795","CSE-221","126");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(9,1,"21100784","CSE-221","126");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(10,2,"21100781","CSE-221","126");
```

```sql
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(1,2,"21100777","CSE-251","127");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(2,1,"21100798","CSE-251","127");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(3,0,"21100788","CSE-251","127");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(4,1,"21100878","CSE-251","127");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(5,2,"21100790","CSE-251","127");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(6,1,"21100793","CSE-251","127");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(7,1,"21100780","CSE-251","127");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(8,0,"21100795","CSE-251","127");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(9,1,"21100784","CSE-251","127");
insert into Attendence(Attendno,bonus,SID,CourseCode,StaffID)
values(10,1,"21100781","CSE-251","127");
```

3. Queries:

1-Display all doctors IDs who teach "database".

```
select Person.GivenName,Person.FamilyName
from Person,Staff,Doctor,Teaches
where Person.PersonID=Staff.StaffPersonID
And Staff.StaffID=Doctor.DoctorID
And Doctor.DoctorID=Teaches.StaffID
And Teaches.CourseCode="CSE-221";
```
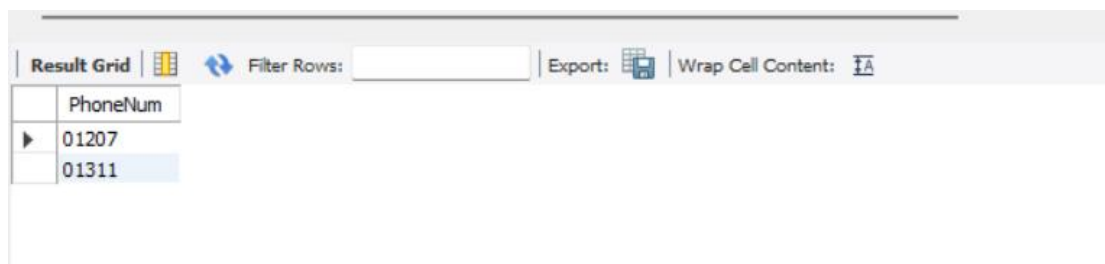
	GivenName	FamilyName
▶	Islam	Elgedawy
	Islam	Elgabany
	Ashraf	Said

Result Grid | Filter Rows: | Export: | Wrap Cell Content: 𝓘A

2-Display All Phone Numbers Of a Certain StudentID.

```
select Phone.PhoneNum
from Student,phone
where Student.SID="21100784"
And Student.PersonID=Phone.PhonePersonID;
```
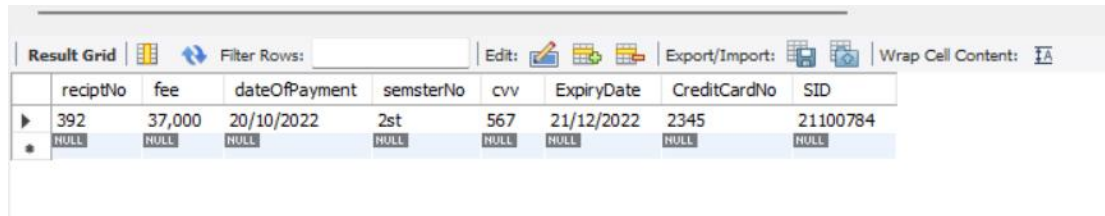
	PhoneNum
▶	01207
	01311

Result Grid | Filter Rows: | Export: | Wrap Cell Content: 𝓘A

3-Display Specific Student Id SemesterFee payment Information.

select *
from SemesterFees
where SemesterFees.SID="21100784";
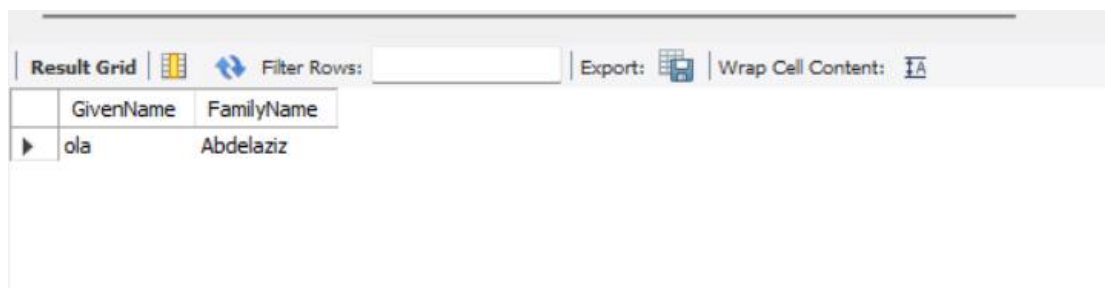
	reciptNo	fee	dateOfPayment	semsterNo	cvv	ExpiryDate	CreditCardNo	SID
▶	392	37,000	20/10/2022	2st	567	21/12/2022	2345	21100784
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

4-Display All Students Who Drop A Certain Course with Course ID.

select Person.GivenName,Person.FamilyName
from Person,Student,Dropp
where Person.PersonID=Student.PersonID
And Student.SID=Dropp.SID
And Dropp.CourseCode="CSE-111";
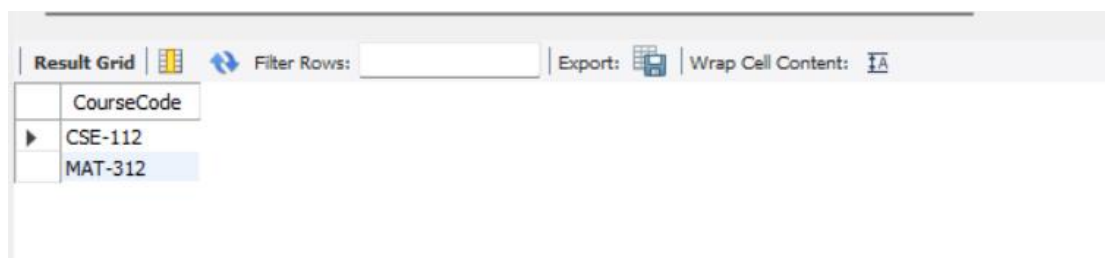
	GivenName	FamilyName
▶	ola	Abdelaziz

5-Display courses That Doctor Teach By Doctor ID.

select Teaches.CourseCode
from Doctor,Teaches
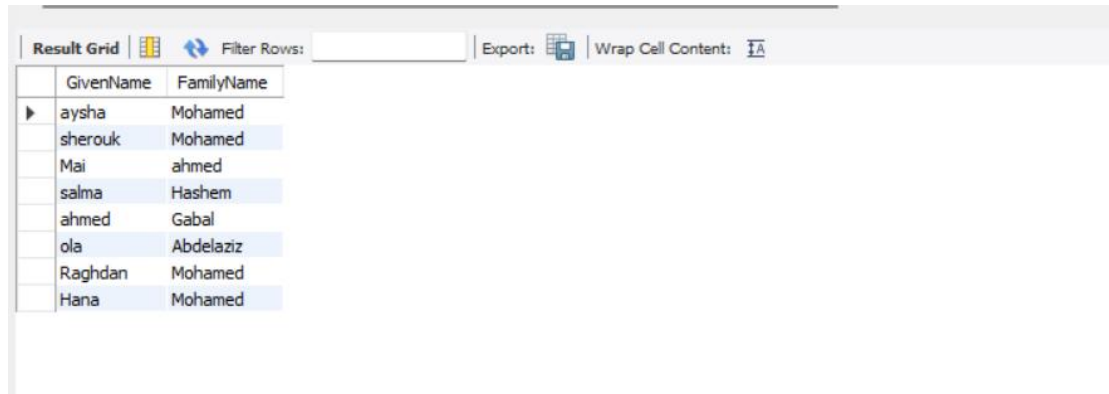where Doctor.DoctorID=Teaches.StaffID
And Teaches.StaffID="124";

	CourseCode
▶	CSE-112
	MAT-312

6-Display All Students Names Whose CGPA is More Than 3.0.

select Person.GivenName,Person.FamilyName
from Person,Student
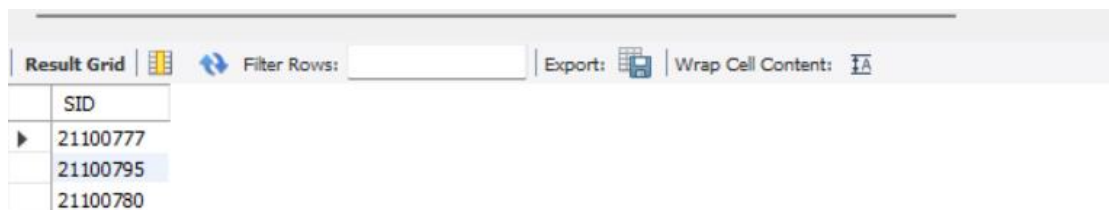where Person.PersonID=Student.PersonID
And Student.CGPA>"3.0";

GivenName	FamilyName
aysha	Mohamed
sherouk	Mohamed
Mai	ahmed
salma	Hashem
ahmed	Gabal
ola	Abdelaziz
Raghdan	Mohamed
Hana	Mohamed

7-Display List Of Students'Ids who paied for the First Semester.

select SemesterFees.SID
from Student,SemesterFees
where Student.SID=SemesterFees.SID
And SemesterFees.semsterNo="1st";

SID
21100777
21100795
21100780