```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# CREATE DATABASE LorestanUniv WITH ENCODING = 'UTF-8' LC_COLLATE = 'fa_IR.utf8' LC_CTYPE = 'fa_IR.utf8' TEMPLATE = template0;
CREATE DATABASE
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# psql -d LorestanUniv;
ERROR:  syntax error at or near "psql"
LINE 1: psql -d LorestanUniv;
        ^
postgres=# psql -d LorestanUniv
postgres-#
postgres-#
postgres-# export LANG=fa_IR.utf8
postgres-#
postgres-#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# CREATE USER Saman WITH PASSWORD '00000';
CREATE ROLE
postgres=# CREATE USER Armin WITH PASSWORD '11111';
CREATE ROLE
postgres=# CREATE USER Sara WITH PASSWORD '22222';
CREATE ROLE
postgres=#
postgres=#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# CREATE TABLE student (STID SERIAL PRIMARY KEY , FName VARCHAR(10) NOT NULL , LName VARCHAR(10) NOT NULL , Father VARCHAR(10) , Birth DATE
 , IDS CHAR(8) , BornCity VARCHAR(20) , Address VARCHAR(100) , PostalCode CHAR(10) CHECK (PostalCode ~ '^[0-9]{10}$') , CPhone VARCHAR(11) CHECK (CP
hone ~ '^[0-9]{11}$') , HPhone VARCHAR(11) CHECK (HPhone ~ '^[0-9]{11}$') , Department VARCHAR(50) , Major VARCHAR(50) , Married BOOLEAN , ID CHAR(1
0) CHECK (ID ~ '^[0-9]{10}$'));
CREATE TABLE
postgres=#
postgres=#
postgres=# CREATE TABLE lecturer (LID SERIAL PRIMARY KEY , FName VARCHAR(10) NOT NULL , LName VARCHAR(10) NOT NULL , ID CHAR(10) CHECK (ID ~ '^[0-9]
{10}$') , Department VARCHAR(50) , Major VARCHAR(50) , Birth DATE , BornCity VARCHAR(20) , Address VARCHAR(100) , PostalCode CHAR(10) CHECK (PostalC
ode ~ '^[0-9]{10}$') , CPhone VARCHAR(11) CHECK (CPhone ~ '^[0-9]{11}$') , HPhone VARCHAR(11) CHECK (HPhone ~ '^[0-9]{11}$'));
CREATE TABLE
postgres=#
postgres=#
postgres=# CREATE TABLE course (CID SERIAL PRIMARY KEY , CName VARCHAR(25) , Department VARCHAR(50) , Credit INT CHECK (Credit BETWEEN 1 AND 4));
CREATE TABLE
postgres=#
postgres=#
postgres=# CREATE TABLE CourseRegister (CID INT REFERENCES course(CID) ON DELETE CASCADE , SID INT REFERENCES student(STID) ON DELETE CASCADE , PRIM
ARY KEY (CID , SID));
CREATE TABLE
postgres=#
postgres=#
postgres=# CREATE TABLE PresentedCourses (CID INT REFERENCES course(CID) ON DELETE CASCADE , LID INT REFERENCES lecturer(LID) ON DELETE CASCADE , PR
IMARY KEY (CID , LID));
CREATE TABLE
postgres=#
postgres=#
postgres=#
postgres=#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# INSERT INTO student (FName , LName , Father , Birth , IDS , BornCity , Address , PostalCode , CPhone , HPhone , Department , Major , Marr
ied , ID) VALUES ('علی' , 'رضایی' , 'حسین' , '1381-04-05' , '27889351' , 'Tehran' , '12th street' , '8854901353' , '09035556681' , '02135713982' , '
Engineering' , 'Computer Science' , TRUE , '0925548898');
INSERT 0 1
postgres=#
postgres=#
postgres=# INSERT INTO student (FName , LName , Father , Birth , IDS , BornCity , Address , PostalCode , CPhone , HPhone , Department , Major , Marr
ied , ID) VALUES ('رضا' , 'حسینی' , 'افشین' , '1371-03-01' , '27833351' , 'Qom' , '4th street' , '8840901353' , '09120556681' , '02134013982' , 'Eng
ineering' , 'Computer Engineering' , FALSE , '0912386391');
INSERT 0 1
postgres=# INSERT INTO student (FName , LName , Father , Birth , IDS , BornCity , Address , PostalCode , CPhone , HPhone , Department , Major , Marr
ied , ID) VALUES ('بابک' , 'یوسفیان' , 'مرتضی' , '1379-10-22' , '14893761' , 'Mashhad' , 'Satarkhan st' , '1984702014' , '09036692215' , '0663320256
6' , 'Engineering' , 'Artificial Intelligence' , FALSE , '0945548898');
INSERT 0 1
postgres=#
postgres=#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone) VALUES ('Armin
' , 'Rashno' , '1234567890' , 'Engineering' , 'Computer Engineering' , '1366-01-01' , 'Lorestan' , 'lu street' , '0987654321' , '09122345678' , '021
34567891');
INSERT 0 1
postgres=#
postgres=#
postgres=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone) VALUES ('Mohha
mad bagher' , 'dowlatshahi' , '0948765321' , 'Engineering' , 'Computer Engineering' , '1364-03-03' , 'Lorestan' , 'l23 street' , '1357924680' , '093
65478687' , '02134857691');
ERROR:  value too long for type character varying(10)
postgres=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone) VALUES ('Mohha
mad bagher' , 'dowlatshahi' , '0948765321' , 'Engineering' , 'Computer Engineering' , '1364-03-03' , 'Lorestan' , 'l23 street' , '135792468' , '0936
547887' , '02134857691');
ERROR:  value too long for type character varying(10)
postgres=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone) VALUES ('Moham
mad' , 'Dowlatshahi' , '9456871234' , 'Engineering' , 'Computer Engineering' , '1364-04-04' , 'Lorestan' , 'l23 street' , '9854321876' , '0923451698
5' , '02134523459');
ERROR:  value too long for type character varying(10)
postgres=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone) VALUES ('Moham
mad' , 'Dolatshahi' , '9456871234' , 'Engineering' , 'Computer Engineering' , '1364-04-04' , 'Lorestan' , 'l23 street' , '9854321876' , '09234516985
' , '02134523459');
INSERT 0 1
postgres=#
postgres=#
postgres=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone) VALUES ('Mojta
ba' , 'Alizade' , '9455971234' , 'Engineering' , 'Computer Engineering' , '1365-04-02' , 'Lorestan' , 'l25 street' , '9854302876' , '09234105985' ,'
02148576923');
INSERT 0 1
postgres=#
postgres=#
postgres=#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# INSERT INTO course (CName , Department , Credit) VALUES ('database systems' , 'computer enginnering' , 3);
INSERT 0 1
postgres=# INSERT INTO course (CName , Department , Credit) VALUES ('Artificial intelligence' , 'computer Enginnering' , 4);
INSERT 0 1
postgres=# INSERT INTO course (CName , Department , Credit) VALUES ('Data Mining' , 'computer Enginnering' , 3);
INSERT 0 1
postgres=#
postgres=#
postgres=#
postgres=# INSERT INTO CourseRegister(CID , SID) VALUES (1,1);
INSERT 0 1
postgres=# INSERT INTO CourseRegister(CID , SID) VALUES (2,2);
INSERT 0 1
postgres=# INSERT INTO CourseRegister(CID , SID) VALUES (3,3);
INSERT 0 1
postgres=#
postgres=#
postgres=# INSERT INTO PresentedCourses(CID , LID) VALUES (1,1);
INSERT 0 1
postgres=# INSERT INTO PresentedCourses(CID , LID) VALUES (2,2);
INSERT 0 1
postgres=# INSERT INTO PresentedCourses(CID , LID) VALUES (3,3);
INSERT 0 1
postgres=#
postgres=#
postgres=#
postgres=#
```

```
SQL Shell (psql)

postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# CREATE VIEW CourseRegisterView AS SELECT cr.CID , cr.SID , c.CName AS CourseName , c.Department AS CourseDepartment , c.Credit AS CourseC
redit , s.FName AS StudentFirstName , s.LName AS StudentLastName FROM CourseRegister cr JOIN course c ON cr.CID = c.CID JOIN student s ON cr.SID = s
.STID;
CREATE VIEW
postgres=#
postgres=#
postgres=#
postgres=# SELECT * FROM CourseRegisterView;
 cid | sid |      coursename       |    coursedepartment    | coursecredit | studentfirstname | studentlastname
-----+-----+-----------------------+------------------------+--------------+------------------+------------------
   1 |   1 | database systems      | computer enginnering   |            3 | ???              | ?????
   2 |   2 | Artificial intelligence | computer Enginnering |            4 | ???              | ?????
   3 |   3 | Data Mining           | computer Enginnering   |            3 | ????             | ???????
(3 rows)


postgres=#
```

```
SQL Shell (psql)

postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# CREATE VIEW PresentedCoursesView AS SELECT pc.CID , pc.LID , c.CName AS CourseName , c.Department AS CourseDepartment , c.Credit AS Cours
eCredit , l.FName AS LecturerFirstName , l.LName AS LecturerLastName FROM PresentedCourses pc JOIN course c ON pc.CID = c.CID JOIN lecturer l ON pc.
LID = l.LID;
CREATE VIEW
postgres=#
postgres=#
postgres=#
postgres=# SELECT * PresentedCoursesView;
ERROR:  syntax error at or near "PresentedCoursesView"
LINE 1: SELECT * PresentedCoursesView;
                 ^
postgres=# SELECT * FROM PresentedCoursesView;
 cid | lid |      coursename       |    coursedepartment    | coursecredit | lecturerfirstname | lecturerlastname
-----+-----+-----------------------+------------------------+--------------+-------------------+------------------
   1 |   1 | database systems      | computer enginnering   |            3 | Armin             | Rashno
   2 |   2 | Artificial intelligence | computer Enginnering |            4 | Mohammad          | Dolatshahi
   3 |   3 | Data Mining           | computer Enginnering   |            3 | Mojtaba           | Alizade
(3 rows)


postgres=#
```

```
SQL Shell (psql)                                                                                    —  ☐  ✕

postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# ALTER DATABASE LorestanUniv OWNER TO Saman;
ALTER DATABASE
postgres=#
postgres=# GRANT ALL PRIVILEGES ON ALL TABLES IN SCHEMA public TO Saman;
GRANT
postgres=# GRANT ALL PRIVILEGES ON SCHEMA public TO Saman;
GRANT
postgres=#
postgres=#
postgres=#
postgres=# GRANT SELECT ON ALL TABLES IN SCHEMA public TO Armin;
GRANT
postgres=# ALTER DEFAULT PRIVILEGES IN SCHEMA public GRANT SELECT ON TABLES TO Armin;
ALTER DEFAULT PRIVILEGES
postgres=#
postgres=#
postgres=#
postgres=# GRANT SELECT ON ALL TABLES IN SCHEMA public TO Sara;
GRANT
postgres=# GRANT INSERT , UPDATE , DELETE ON student TO Sara;
GRANT
postgres=# ALTER DEFAULT PRIVILEGES IN SCHEMA public GRANT SELECT ON TABLES TO Sara;
ALTER DEFAULT PRIVILEGES
postgres=#
postgres=#
postgres=#
postgres=#
```
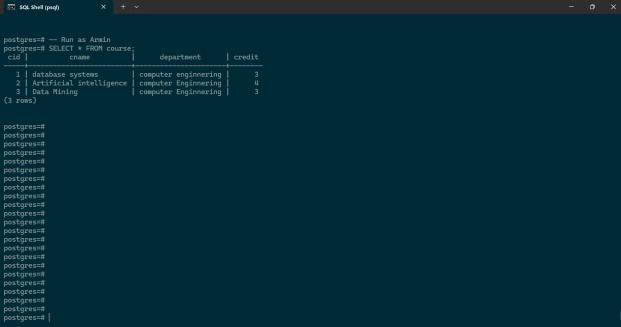
```
SQL Shell (psql)                                                                                    —  ☐  ✕

postgres=#
postgres=# DELETE FROM student WHERE stid = 1;
DELETE 1
postgres=# DELETE FROM student WHERE Married = TRUE;
DELETE 0
postgres=# DELETE FROM student WHERE Department = 'Computer Enginnering';
DELETE 0
postgres=# DELETE FROM student WHERE Department = 'Computer Science';
DELETE 0
postgres=# DELETE FROM student WHERE Department = 'Computer Engineering';
DELETE 0
postgres=#
postgres=#
postgres=# UPDATE student SET FName = 'Ali' WHERE STID = 3;
UPDATE 1
postgres=# UPDATE student SET Department = 'Electrical Engineering' WHERE FName = 'Ali';
UPDATE 1
postgres=# UPDATE student SET CPhone = '09123451996' WHERE STID = 2;
UPDATE 1
postgres=#
postgres=# DELETE FROM lecturer WHERE LID = 1;
DELETE 1
postgres=# DELETE FROM lecturer WHERE Major = 'Mathematics';
DELETE 0
postgres=# DELETE FROM lecturer WHERE BornCity = 'Tehran';
DELETE 0
postgres=#
postgres=#
postgres=# UPDATE lecturer SET Major = 'physics' WHERE LID = 1;
UPDATE 0
postgres=# UPDATE lecturer SET Department = 'Mechanical Engineering' WHERE LName = 'Smith';
UPDATE 0
postgres=# UPDATE lecturer SET HPhone = '09125567813' WHERE LID = 2;
UPDATE 1
postgres=#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# -- Run as Saman
postgres=# INSERT INTO student (FName , LName , Father , Birth , IDS , BornCity , Address , PostalCode , CPhone , HPhone , Department , Major , Marr
ied , ID) VALUES ('reza' , 'mohammadi' , 'hosseini' , '1380-01-01' , '45698176' , 'Shiraz' , '456.main.st' , '1029384756' , '0903458125' , '02198476
12' , 'Engineering' , 'Computer Engineering' , FALSE , '0923349818');
ERROR:  new row for relation "student" violates check constraint "student_cphone_check"
DETAIL:  Failing row contains (4, reza, mohammadi, hosseini, 1380-01-01, 45698176, Shiraz, 456.main.st, 1029384756, 0903458125, 0219847612, Engineer
ing, Computer Engineering, f, 0923349818).
postgres=# -- Run as Saman
postgres=# INSERT INTO student (
postgres(#     FName, LName, Father, Birth, IDS, BornCity, Address, PostalCode,
postgres(#     CPhone, HPhone, Department, Major, Married, ID
postgres(# ) VALUES (
postgres(#     'reza', 'mohammadi', 'hossein', '2000-01-01', '456', 'Shiraz',
postgres(#     '456 Main St', '1234567890', '09123456789', '06633202566',
postgres(#     'Engineering', 'Electrical Engineering', FALSE, '1234567890'
postgres(# );
INSERT 0 1
postgres=#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# -- Run as Saman
postgres=# DELETE FROM student WHERE FName = 'reza' AND LName = 'mohammadi';
DELETE 1
postgres=#
postgres=#
postgres=# -- Run as Saman
postgres=# UPDATE student
postgres=# SET Department = 'Computer Science'
postgres=# WHERE FName = 'ali' AND LName = 'alavi';
UPDATE 0
postgres=#
postgres=#
postgres=#
postgres=# -- Run as Saman
postgres=# SELECT * FROM student;
 stid | fname |  lname  | father  |   birth    |   ids    | borncity |  address     | postalcode |   cphone    |    hphone    |        department
 |          major          | married |     id
------+-------+---------+---------+------------+----------+----------+--------------+------------+-------------+--------------+------------------------
-+-------------------------+---------+------------
    3 | Ali   | ??????? | ?????   | 1379-10-22 | 14893761 | Mashhad  | Satarkhan st | 1984702014 | 09036692215 | 06633202566  | Electrical Engineering
 | Artificial Intelligence | f       |  0945548898
    2 | ???   | ?????   | ?????   | 1371-03-01 | 27833351 | Qom      | 4th street   | 8840901353 | 09123451996 | 02134013982  | Engineering
 | Computer Engineering    | f       |  0912386391
(2 rows)


postgres=#
postgres=#
postgres=#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# -- Run as Armin
postgres=# SELECT * FROM student;
 stid | fname |  lname  | father | birth      |   ids    | borncity |   address    | postalcode |   cphone    |   hphone    |        department
      |        major         | married |      id
------+-------+---------+--------+------------+----------+----------+--------------+------------+-------------+-------------+------------------------
--+----------------------+---------+-----------
    3 | Ali   | ??????? | ????? | 1379-10-22 | 14893761 | Mashhad  | Satarkhan st | 1984702014 | 09036692215 | 06633202566 | Electrical Engineering
   | Artificial Intelligence | f       | 0945548898
    2 | ???   | ????? | ????? | 1371-03-01 | 27833351 | Qom      | 4th street   | 8840901353 | 09123451996 | 02134013982 | Engineering
   | Computer Engineering | f       | 0912386391
(2 rows)


postgres=#
postgres=#
postgres=# -- Run as Armin
postgres=# SELECT * FROM lecturer;
 lid | fname    |   lname    |     id     | department  |        major         |   birth    | borncity |  address   | postalcode |   cphone    | h
phone
-----+----------+------------+------------+-------------+----------------------+------------+----------+------------+------------+-------------+----
---------
   3 | Mojtaba  | Alizade    | 9455971234 | Engineering | Computer Engineering | 1365-04-02 | Lorestan | l25 street | 9854302876 | 09234105985 | 021
48576923
   2 | Mohammad | Dolatshahi | 9456871234 | Engineering | Computer Engineering | 1364-04-04 | Lorestan | l23 street | 9854321876 | 09234516985 | 091
25567813
(2 rows)


postgres=#
```

```
postgres=# -- Run as Armin
postgres=# SELECT * FROM course;
 cid |        cname         |      department      | credit
-----+----------------------+----------------------+--------
   1 | database systems     | computer enginnering |      3
   2 | Artificial intelligence | computer Enginnering |      4
   3 | Data Mining          | computer Enginnering |      3
(3 rows)


postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# -- Run as Armin
postgres=# SELECT * FROM CourseRegister;
 cid | sid
-----+-----
   2 |   2
   3 |   3
(2 rows)


postgres=#
postgres=#
postgres=# -- Run as Armin
postgres=# SELECT * FROM PresentedCourses;
 cid | lid
-----+-----
   2 |   2
   3 |   3
(2 rows)


postgres=#
postgres=#
```

```
postgres=# -- Run as Sara
postgres=# INSERT INTO student (
postgres(#     FName, LName, Father, Birth, IDS, BornCity, Address, PostalCode,
postgres(#     CPhone, HPhone, Department, Major, Married, ID
postgres(# ) VALUES (
postgres(#     'zahra', 'bahrami', 'ali', '1999-02-15', '789', 'Tehran',
postgres(#     '789 Main St', '9876543210', '09127654321', '02133202566',
postgres(#     'Science', 'Physics', FALSE, '9876543210'
postgres(# );
INSERT 0 1
postgres=#
postgres=#
postgres=# -- Run as Sara
postgres=# DELETE FROM student WHERE FName = 'zahra' AND LName = 'bahrami';
DELETE 1
postgres=# -- Run as Sara
postgres=# UPDATE student
postgres-# SET Department = 'Mathematics'
postgres-# WHERE FName = 'ali' AND LName = 'alavi';
UPDATE 0
postgres=#
postgres=#
postgres=#
postgres=# -- Run as Sara
postgres=# SELECT * FROM student;
 stid | fname | lname   | father |   birth    |   ids    | borncity |  address     | postalcode |  cphone    |   hphone    |        department
  |        major        |  married |     id
------+-------+---------+--------+------------+----------+----------+--------------+------------+------------+-------------+-------------------------
  +---------------------+----------+-------------
    3 | Ali   | ??????? | ?????  | 1379-10-22 | 14893761 | Mashhad  | Satarkhan st | 1984702014 | 09036692215 | 06633202566 | Electrical Engineering
  | Artificial Intelligence | f      |    0945548898
    2 | ???   | ?????   | ?????  | 1371-03-01 | 27833351 | Qom      | 4th street   | 8840901353 | 09123451996 | 02134013982 | Engineering
  | Computer Engineering    | f      |    0912386391
(2 rows)
```

```
postgres=#
postgres=# -- Run as Sara
postgres=# SELECT * FROM lecturer;
 lid |  fname   |  lname    |     id     | department  |       major        |   birth    | borncity | address  | postalcode |   cphone   |  h
phone
-----+----------+-----------+------------+-------------+--------------------+------------+----------+----------+------------+------------+----
---------
   3 | Mojtaba  | Alizade   | 9455971234 | Engineering | Computer Engineering | 1365-04-02 | Lorestan | l25 street | 9854302876 | 09234105985 | 021
48576923
   2 | Mohammad | Dolatshahi | 9456871234 | Engineering | Computer Engineering | 1364-04-04 | Lorestan | l23 street | 9854321876 | 09234516985 | 091
25567813
(2 rows)


postgres=#
postgres=# -- Run as Sara
postgres=# SELECT * FROM course;
 cid |        cname         |      department       | credit
-----+----------------------+-----------------------+--------
   1 | database systems     | computer enginnering  |      3
   2 | Artificial intelligence | computer Enginnering |      4
   3 | Data Mining          | computer Enginnering  |      3
(3 rows)


postgres=# -- Run as Sara
postgres=# SELECT * FROM CourseRegister;
 cid | sid
-----+-----
   2 |   2
   3 |   3
(2 rows)


postgres=#
```

```
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# -- Run as Sara
postgres=# SELECT * FROM PresentedCourses;
 cid | lid
-----+-----
   2 |   2
   3 |   3
(2 rows)


postgres=#
```

```
■ SQL Shell (psql)              ×   + ∨                                                                          —    ▢    ✕

postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=#
postgres=# BEGIN;
BEGIN
postgres=*# SAVEPOINT before_course_register_delete;
SAVEPOINT
postgres=*# DELETE FROM CourseRegister WHERE CID = 1;
DELETE 0
postgres=*# DELETE FROM CourseRegister WHERE CID = 2;
DELETE 1
postgres=*# ROLLBACK TO SAVEPOINT before_course_register_delete;
ROLLBACK
postgres=*# SAVEPOINT before_presented_courses_delete;
SAVEPOINT
postgres=*# DELETE FROM PresentedCourses WHERE CID = 2;
DELETE 1
postgres=*# ROLLBACK TO SAVEPOINT before_presented_courses_delete;
ROLLBACK
postgres=*# SAVEPOINT before_courses_delete;
SAVEPOINT
postgres=*# DELETE FROM course WHERE CID = 2;
DELETE 1
postgres=*# ROLLBACK TO SAVEPOINT before_courses_delete;
ROLLBACK
postgres=*# COMMIT;
COMMIT
postgres=# |                                                                                                      |
```

And the whole of description of this homework is into the README.md file