

```
SQL Shell (psql)
Server [localhost]:
Database [postgres]:
Port [5432]:
Username [postgres]:
Password for user postgres:

psql (15.3)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

postgres=#
postgres=#
postgres=#
postgres=# \l

      Name | Owner | Encoding | Collate | List of databases | ICU Locale | Locale Provider | Access privileges
-----+-----+-----+-----+-----+-----+-----+-----
lorestanuniv | postgres | UTF8 | fa_IR.utf8 | fa_IR.utf8 |  | libc | 
postgres | postgres | UTF8 | English_United States.1252 | English_United States.1252 |  | libc | 
template0 | postgres | UTF8 | English_United States.1252 | English_United States.1252 |  | libc | =c/postgres +
template1 | postgres | UTF8 | English_United States.1252 | English_United States.1252 |  | libc | postgres=CTc/postgres +
(4 rows)

postgres=#
postgres=# \DU
invalid command \DU
Try \? for help.
postgres=# \du

      Role name | List of roles | Member of
-----+-----+-----
postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {}

postgres=# CREATE USER Saman WITH PASSWORD '00000';
CREATE ROLE

SQL Shell (psql)
CREATE ROLE
postgres=# CREATE USER Armin WITH PASSWORD '11111';
CREATE ROLE
postgres=# CREATE USER Sara WITH PASSWORD '22222';
CREATE ROLE
postgres=# \du

      Role name | List of roles | Member of
-----+-----+-----
armin |  | {}
postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {}
saman |  | {}
sara |  | {}

postgres=# \c
You are now connected to database "postgres" as user "postgres".
postgres=# \c lorestanuniv;
You are now connected to database "lorestanuniv" as user "postgres".
lorestanuniv=#
lorestanuniv=#
lorestanuniv=# 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) , BornC
ity VARCHAR(20) , Address VARCHAR(100) , PostalCode CHAR(10) , CHECK (PostalCode ~ '^[0-9]{10}$') , CPhone VARCHAR(11) CHECK (CPhone ~ '^[0-9]{11}$') , HPhone VARCHAR(11) CHE
CK (HPhone ~ '^[0-9]{11}$') , Department VARCHAR(50) , Major VARCHAR(50) , Married BOOLEAN , ID CHAR(10) CHECK (ID ~ '^[0-9]{10}$'));
CREATE TABLE
lorestanuniv=#
lorestanuniv=#
lorestanuniv=# SELECT * FROM student;
 stid | fname | lname | father | birth | ids | borncity | address | postalcode | cphone | hphone | department | major | married | id
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
(0 rows)

lorestanuniv=#
lorestanuniv=#
lorestanuniv=# 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}$') , Department V
ARCHAR(50) , Major VARCHAR(50) , Birth DATE , BornCity VARCHAR(20) , Address VARCHAR(100) , PostalCode CHAR(10) , CHECK (PostalCode ~ '^[0-9]{10}$') , CPhone VARCHAR(11) CHEC
K (CPhone ~ '^[0-9]{11}$') , HPhone VARCHAR(11) CHECK (HPhone ~ '^[0-9]{11}$'));
CREATE TABLE
lorestanuniv=#
lorestanuniv=# CREATE TABLE course (CID SERIAL PRIMARY KEY , CName VARCHAR(25) , Department VARCHAR(50) , Credit INT CHECK (Credit BETWEEN 1 AND 4));
```

```
SQL Shell (psql)
CREATE TABLE
lorestanuniv=#
lorestanuniv=# CREATE TABLE CourseRegister (CID INT REFERENCES course(CID) ON DELETE CASCADE , SID INT REFERENCES student(STID) ON DELETE CASCADE , PRIMARY KEY (CID , SID));
CREATE TABLE
lorestanuniv=#
lorestanuniv=# CREATE TABLE PresentedCourses (CID INT REFERENCES course(CID) , ON DELETE CASCADE , LID INT REFERENCES lecturer(LID) ON DELETE CASCADE , PRIMARY KEY (CID , LID
));
ERROR:  syntax error at or near "ON"
LINE 1: ...resentedCourses (CID INT REFERENCES course(CID) , ON DELETE ...
^

lorestanuniv=# CREATE TABLE PresentedCourses (CID INT REFERENCES course(CID) ON DELETE CASCADE , LID INT REFERENCES lecturer(LID) ON DELETE CASCADE , PRIMARY KEY (CID , LID))
;
CREATE TABLE
lorestanuniv=#
lorestanuniv=#
lorestanuniv=# INSERT INTO student (FName , LName , Father , Birth , IDS , BornCity , Address , PostalCode , CPhone , HPhone , Department , Major , Married , ID) VALUES ('ali
' , 'rezaii' , 'hossein' , '1381-04-05' , '27889351' , 'Tehran' , '12th street' , '8854901353' , '09034493321' , '02134958671' , 'Engineering' , 'Computer Engineering' , TRUE
, '0945512345');
INSERT 0 1
lorestanuniv=# INSERT INTO student (FName , LName , Father , Birth , IDS , BornCity , Address , PostalCode , CPhone , HPhone , Department , Major , Married , ID) VALUES ('rez
a' , 'golami' , 'hassan' , '1383-04-05' , '27833351' , 'qazvin' , '13th street' , '8852301353' , '09034493121' , '02134958231' , 'Engineering' , 'Computer Engineering' , FALS
E , '0945513245');
INSERT 0 1
lorestanuniv=# INSERT INTO student (FName , LName , Father , Birth , IDS , BornCity , Address , PostalCode , CPhone , HPhone , Department , Major , Married , ID) VALUES ('moh
amad' , 'alam' , 'morad' , '1382-03-02' , '27333351' , 'mashhad' , '112th street' , '8852121353' , '09031293121' , '02112958231' , 'Engineering' , 'Computer Science' , FALSE
, '0945513212');
INSERT 0 1
lorestanuniv=# SELECT * FROM student;
 stid | fname | lname | father | birth | ids | borncity | address | postalcode | cphone | hphone | department | major | married |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 1 | ali | rezaii | hossein | 1381-04-05 | 27889351 | Tehran | 12th street | 8854901353 | 09034493321 | 02134958671 | Engineering | Computer Engineering | t |
0945512345
 2 | reza | golami | hassan | 1383-04-05 | 27833351 | qazvin | 13th street | 8852301353 | 09034493121 | 02134958231 | Engineering | Computer Engineering | f |
0945513245
 3 | mohamad | alam | morad | 1382-03-02 | 27333351 | mashhad | 112th street | 8852121353 | 09031293121 | 02112958231 | Engineering | Computer Science | f |
0945513212
(3 rows)

lorestanuniv=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone , ) VALUES ('mojtaba' , 'alizade' , '
SQL Shell (psql)
lorestanuniv=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone , ) VALUES ('mojtaba' , 'alizade' , '
9455971234' , 'Engineering' , 'Computer Engineering' , '1365-04-02' , 'Lorestan' , '125 street' , '9811231234' , '09123456987' , '02139687521');
ERROR:  syntax error at or near ")"
LINE 1: ...rnCity , Address , PostalCode , CPhone , HPhone , ) VALUES (...
^

lorestanuniv=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone) VALUES ('mojtaba' , 'alizade' , '945
5971234' , 'Engineering' , 'Computer Engineering' , '1365-04-02' , 'Lorestan' , '125 street' , '9811231234' , '09123456987' , '02139687521');
INSERT 0 1
lorestanuniv=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone) VALUES ('armin' , 'rashno' , '945597
1124' , 'Engineering' , 'Computer Engineering' , '1369-04-01' , 'Lorestan' , '122 street' , '9811213234' , '09122356987' , '02139687121');
INSERT 0 1
lorestanuniv=# INSERT INTO lecturer (FName , LName , ID , Department , Major , Birth , BornCity , Address , PostalCode , CPhone , HPhone) VALUES ('bager' , 'dolatsha' , '9455
971112' , 'Engineering' , 'Computer Engineering' , '1361-04-04' , 'Lorestan' , '1212 street' , '9811213134' , '09122312987' , '02139687112');
INSERT 0 1
lorestanuniv=# INSERT INTO course (CName , Department , Credit) VALUES ('database systems' , 'computer engineering' , 3);
INSERT 0 1
lorestanuniv=# INSERT INTO course (CName , Department , Credit) VALUES ('simple data' , 'computer engineering' , 2);
INSERT 0 1
lorestanuniv=# INSERT INTO course (CName , Department , Credit) VALUES ('AGI & AI' , 'computer engineering' , 4);
INSERT 0 1
lorestanuniv=# INSERT INTO CourseRegister(CID , SID) VALUES (1,1);
INSERT 0 1
lorestanuniv=# INSERT INTO CourseRegister(CID , SID) VALUES (2,2);
INSERT 0 1
lorestanuniv=# INSERT INTO CourseRegister(CID , SID) VALUES (3,3);
INSERT 0 1
lorestanuniv=# INSERT INTO PresentedCourses(CID , LID) VALUES (1,1);
INSERT 0 1
lorestanuniv=# INSERT INTO PresentedCourses(CID , LID) VALUES (2,2);
INSERT 0 1
lorestanuniv=# INSERT INTO PresentedCourses(CID , LID) VALUES (3,3);
INSERT 0 1
lorestanuniv=#
lorestanuniv=# SELECT * FROM student;
 stid | fname | lname | father | birth | ids | borncity | address | postalcode | cphone | hphone | department | major | married |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 1 | ali | rezaii | hossein | 1381-04-05 | 27889351 | Tehran | 12th street | 8854901353 | 09034493321 | 02134958671 | Engineering | Computer Engineering | t |
0945512345
 2 | reza | golami | hassan | 1383-04-05 | 27833351 | qazvin | 13th street | 8852301353 | 09034493121 | 02134958231 | Engineering | Computer Engineering | f |
0945513245
```

```
SQL Shell (psql)
lorestanuniv=# SELECT * FROM student;
  stdid |  fname  |  lname  | father | birth | ids | borncity | address | postalcode | cphone | hphone | department | major | married |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
  1 | ali | rezaii | hossein | 1381-04-05 | 27889351 | Tehran | 12th street | 8854901353 | 09034493321 | 02134958671 | Engineering | Computer Engineering | t |
0945512345
  2 | reza | golami | hassan | 1383-04-05 | 27833351 | qazvin | 13th street | 8852301353 | 09034493121 | 02134958231 | Engineering | Computer Engineering | f |
0945513245
  3 | mohamad | alam | morad | 1382-03-02 | 27333351 | mashhad | 112th street | 8852121353 | 09031293121 | 02112958231 | Engineering | Computer Science | f |
0945513212
(3 rows)

lorestanuniv=# SELECT * FROM lecturer;
  lid |  fname  |  lname  | id | department | major | birth | borncity | address | postalcode | cphone | hphone |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
  1 | mojtaba | alizade | 9455971234 | Engineering | Computer Engineering | 1365-04-02 | Lorestan | 125 street | 9811231234 | 09123456987 | 02139687521 |
  2 | armin | rashno | 9455971124 | Engineering | Computer Engineering | 1369-04-01 | Lorestan | 122 street | 9811213234 | 09122356987 | 02139687121 |
  3 | bager | dolatsha | 9455971112 | Engineering | Computer Engineering | 1361-04-04 | Lorestan | 1212 street | 9811213134 | 09122312987 | 02139687112 |
(3 rows)

lorestanuniv=# SELECT * FROM course;
  cid | cname | department | credit |
-----+-----+-----+-----+
  1 | database systems | computer engineering | 3 |
  2 | simple data | computer engineering | 2 |
  3 | AGI & AI | computer engineering | 4 |
(3 rows)

lorestanuniv=# SELECT * FROM CourseRegister;
  cid | sid |
-----+-----+
  1 | 1 |
  2 | 2 |
  3 | 3 |
(3 rows)

lorestanuniv=# SELECT * FROM PresentedCourses;

SQL Shell (psql)
lorestanuniv=# SELECT * FROM PresentedCourses;
  cid | lid |
-----+-----+
  1 | 1 |
  2 | 2 |
  3 | 3 |
(3 rows)

lorestanuniv=# CREATE VIEW CourseRegisterView AS SELECT cr.CID , cr.SID , c.CName AS CourseName , c.Department AS CourseDepartment , c.Credit AS CourseCredit , 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
lorestanuniv=# SELECT * FROM CourseRegisterView;
  cid | sid | coursename | coursedepartment | coursecredit | studentfirstname | studentlastname |
-----+-----+-----+-----+-----+-----+-----+
  1 | 1 | database systems | computer engineering | 3 | ali | rezaii |
  2 | 2 | simple data | computer engineering | 2 | reza | golami |
  3 | 3 | AGI & AI | computer engineering | 4 | mohamad | alam |
(3 rows)

lorestanuniv=# CREATE VIEW PresentedCoursesView AS SELECT pc.CID , pc.LID , c.CName AS CourseName , c.Department AS CourseDepartment , c.Credit AS CourseCredit , 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
lorestanuniv=# SELECT * FROM PresentedCoursesView;
  cid | lid | coursename | coursedepartment | coursecredit | lecturerfirstname | lecturerlastname |
-----+-----+-----+-----+-----+-----+-----+
  1 | 1 | database systems | computer engineering | 3 | mojtaba | alizade |
  2 | 2 | simple data | computer engineering | 2 | armin | rashno |
  3 | 3 | AGI & AI | computer engineering | 4 | bager | dolatsha |
(3 rows)

lorestanuniv=# ALTER DATABASE LorestanUniv OWNER TO Saman;
ALTER DATABASE
lorestanuniv=# ALTER DATABASE lorestanuniv OWNER TO Saman;
ALTER DATABASE
lorestanuniv=# GRANT ALL PRIVILEGES ON ALL TABLES IN SCHEMA public TO Saman;
GRANT
lorestanuniv=# GRANT ALL PRIVILEGES ON SCHEMA public TO Saman;
GRANT
```

```
SQL Shell (psql)
lorestanuniv=# ALTER DATABASE LorestanUniv OWNER TO Saman;
ALTER DATABASE
lorestanuniv=# ALTER DATABASE lorestanuniv OWNER TO Saman;
ALTER DATABASE
lorestanuniv=# GRANT ALL PRIVILEGES ON ALL TABLES IN SCHEMA public TO Saman;
GRANT
lorestanuniv=# GRANT ALL PRIVILEGES ON SCHEMA public TO Saman;
GRANT
lorestanuniv=#
lorestanuniv=#
lorestanuniv=# GRANT SELECT ON ALL TABLES IN SCHEMA public TO Armin;
GRANT
lorestanuniv=# ALTER DEFAULT PRIVILEGES IN SCHEMA public GRANT SELECT ON TABLES TO Armin;
ALTER DEFAULT PRIVILEGES
lorestanuniv=# GRANT SELECT ON ALL TABLES IN SCHEMA public TO Sara;
GRANT
lorestanuniv=# GRANT INSERT , UPDATE , DELETE ON student TO Sara;
GRANT
lorestanuniv=# ALTER DEFAULT PRIVILEGES IN SCHEMA public GRANT SELECT ON TABLES TO Sara;
ALTER DEFAULT PRIVILEGES
lorestanuniv=#
lorestanuniv=# BEGIN;
BEGIN
lorestanuniv=# SAVEPOINT before_course_register_delte;
SAVEPOINT
lorestanuniv=# DELETE FROM CourseRegister WHERE CID = 4;
DELETE 0
lorestanuniv=# ROLLBACK TO SAVEPOINT before_course_register_delte;
ROLLBACK
lorestanuniv=# SAVEPOINT before_presented_courses_delete;
SAVEPOINT
lorestanuniv=# DELETE FROM PresentedCourses WHERE CID = 4;
DELETE 0
lorestanuniv=# ROLLBACK TO SAVEPOINT before_presented_courses_delete;
ROLLBACK
lorestanuniv=# SAVEPOINT before_courses_delete;
SAVEPOINT
lorestanuniv=# DELETE FROM course WHERE CID = 4;
DELETE 0
lorestanuniv=# ROLLBACK TO SAVEPOINT before_courses_delete;
ROLLBACK

lorestanuniv=# COMMIT;
COMMIT
lorestanuniv=#
lorestanuniv=#
lorestanuniv=# -- Run as Saman
lorestanuniv=# INSERT INTO student (FName , LName , Father , Birth , IDS , BornCity , Address , PostalCode , CPhone , HPhone , Department , Major , Married , ID) VALUES ('babak' , 'yousefian' , 'morteza' , '1379-10-22' , '27812351' , 'Mashhad' , '93th street' , '8854901313' , '09036692215' , '02134951271' , 'Engineering' , 'Computer Engineering' , FALSE , '0925548898');
INSERT 0 1
lorestanuniv=#
lorestanuniv=#
lorestanuniv=#
lorestanuniv=# --Run as Saman
lorestanuniv=# DELETE FROM student WHERE FName = 'ali' AND LName = 'rezaii';
DELETE 1
lorestanuniv=#
lorestanuniv=#
lorestanuniv=# -- Run as Saman
lorestanuniv=# UPDATE student SET Department = 'Computer Advanced Engineering' WHERE FName = 'babak' AND LName = 'yousefian';
UPDATE 1
lorestanuniv=#
lorestanuniv=#
lorestanuniv=# -- Run as Saman
lorestanuniv=# SELECT * FROM student;
 stid |  fname  |  lname  | father | birth | ids | borncity | address | postalcode | cphone | hphone | department | major
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
  2 | reza   | golami  | hassan | 1383-04-05 | 27833351 | qazvin | 13th street | 8852301353 | 09034493121 | 02134958231 | Engineering | Computer En
gineering | f
  3 | mohamad | alam    | morad  | 1382-03-02 | 27333351 | mashhad | 112th street | 8852121353 | 09031293121 | 02112958231 | Engineering | Computer Sc
ience | f
  4 | babak  | yousefian | morteza | 1379-10-22 | 27812351 | Mashhad | 93th street | 8854901313 | 09036692215 | 02134951271 | Computer Advanced Engineering | Computer En
gineering | f
(3 rows)

lorestanuniv=#
lorestanuniv=#
```

```
SQL Shell (psql)
lorestanuniv=# -- Run as Armin
lorestanuniv=# SELECT * FROM student;
 stid | fname | lname | father | birth | ids | borncity | address | postalcode | cphone | hphone | department | major
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
 2 | reza | golami | hassan | 1383-04-05 | 27833351 | qazvin | 13th street | 8852301353 | 090344093121 | 02134958231 | Engineering | Computer En
gineering | f
 3 | mohamad | alam | morad | 1382-03-02 | 27333351 | mashhad | 112th street | 8852121353 | 09031293121 | 02112958231 | Engineering | Computer Sc
ience | f
 4 | babak | yousefian | morteza | 1379-10-22 | 27812351 | Mashhad | 93th street | 8854901313 | 09036692215 | 02134951271 | Computer Advanced Engineering | Computer En
gineering | f
(3 rows)

lorestanuniv=# -- Run as Armin
lorestanuniv=# SELECT * FROM lecturer;
 lid | fname | lname | id | department | major | birth | borncity | address | postalcode | cphone | hphone
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
 1 | mojtaba | alizade | 90455971234 | Engineering | Computer Engineering | 1365-04-02 | Lorestan | 125 street | 9811231234 | 09123456987 | 02139687521
 2 | azmin | rashno | 90455971124 | Engineering | Computer Engineering | 1369-04-01 | Lorestan | 122 street | 9811213234 | 09122356987 | 02139687121
 3 | bager | dolatsha | 90455971112 | Engineering | Computer Engineering | 1361-04-04 | Lorestan | 1212 street | 9811213134 | 09122312987 | 02139687112
(3 rows)

lorestanuniv=# -- Run as Armin
lorestanuniv=# SELECT * FROM course;
 cid | cname | department | credit
-----+-----+-----+-----
 1 | database systems | computer engineering | 3
 2 | simple data | computer engineering | 2
 3 | AGI & AI | computer engineering | 4
(3 rows)

lorestanuniv=# -- Run as Armin
lorestanuniv=#
lorestanuniv=# SELECT * FROM COurseRegister;
 cid | sid
-----+-----
 2 | 2
 3 | 3
(2 rows)

lorestanuniv=# -- Run as Armin
lorestanuniv=# SELECT * FROM PresentedCourses;
 cid | lid
-----+-----
 1 | 1
 2 | 2
 3 | 3
(3 rows)

lorestanuniv=# -- Run as Sara
lorestanuniv=# INSERT INTO student (FName , LName , Father , Birth , IDS , BorNCity , Address , PostalCode , CPhone , HPhone , Department , Major , Married , ID) VALUES ('mob
in' , 'ramezani' , 'mobinfather' , '1380-10-22' , '23312351' , 'Kermanshah' , '11th street' , '8854901113' , '09036112215' , '02134911271' , 'Engineering' , 'Computer Enginee
ring' , FALSE , '0925118898');
ERROR: value too long for type character varying(10)
lorestanuniv=# INSERT INTO student (FName , LName , Father , Birth , IDS , BorNCity , Address , PostalCode , CPhone , HPhone , Department , Major , Married , ID) VALUES ('mob
in' , 'ramezani' , 'mobfather' , '1380-10-22' , '23312351' , 'Kermansha' , '11th street' , '8854901113' , '09036112215' , '02134911271' , 'Engineering' , 'Computer Engineerin
g' , FALSE , '0925118898');
INSERT 0 1
lorestanuniv=# -- Run as Sara
lorestanuniv=# DELETE FROM student WHERE FName = 'mobin' AND LName = 'ramezani';
DELETE 1
lorestanuniv=# -- Run as Sara
lorestanuniv=# UPDATE student SET Department = 'Mathematics' WHERE FName = 'babak' AND LName = 'yousefian';
UPDATE 1
lorestanuniv=# -- Run as Sara
lorestanuniv=# SELECT * FROM student;
 stid | fname | lname | father | birth | ids | borncity | address | postalcode | cphone | hphone | department | major | marrie
d | id
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
 2 | reza | golami | hassan | 1383-04-05 | 27833351 | qazvin | 13th street | 8852301353 | 090344093121 | 02134958231 | Engineering | Computer Engineering | f
```

```
SQL Shell (psql)
UPDATE 1
lorestanuniv=# -- Run as Sara
lorestanuniv=# SELECT * FROM student;
 stid | fname | lname | father | birth | ids | borncity | address | postalcode | cphone | hphone | department | major | marrie
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
 2 | reza | golami | hassan | 1383-04-05 | 27833351 | qazvin | 13th street | 8852301353 | 09034493121 | 02134958231 | Engineering | Computer Engineering | f
 | 0945513245
 3 | mohamad | alam | morad | 1382-03-02 | 27333351 | mashhad | 112th street | 8852121353 | 09031293121 | 02112958231 | Engineering | Computer Science | f
 | 0945513212
 4 | babak | yousefian | morteza | 1379-10-22 | 27812351 | Mashhad | 93th street | 8854901313 | 09036692215 | 02134951271 | Mathematics | Computer Engineering | f
 | 0925548898
(3 rows)

lorestanuniv=# -- Run as Sara
lorestanuniv=# SELECT * FROM lecturer;
 lid | fname | lname | id | department | major | birth | borncity | address | postalcode | cphone | hphone
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
 1 | mojtaba | alizade | 9455971234 | Engineering | Computer Engineering | 1365-04-02 | Lorestan | 125 street | 9811231234 | 09123456987 | 02139687521
 2 | armin | rashno | 9455971124 | Engineering | Computer Engineering | 1369-04-01 | Lorestan | 122 street | 9811213234 | 09122356987 | 02139687121
 3 | bager | dolatsha | 9455971112 | Engineering | Computer Engineering | 1361-04-04 | Lorestan | 1212 street | 9811213134 | 09122312987 | 02139687112
(3 rows)

lorestanuniv=# -- Run as Sara
lorestanuniv=# SELECT * FROM course;
 cid | cname | department | credit
-----+-----+-----+-----
 1 | database systems | computer engineering | 3
 2 | simple data | computer engineering | 2
 3 | AGI & AI | computer engineering | 4
(3 rows)

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

SQL Shell (psql)
lorestanuniv=# -- Run as Sara
lorestanuniv=# SELECT * FROM lecturer;
 lid | fname | lname | id | department | major | birth | borncity | address | postalcode | cphone | hphone
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
 1 | mojtaba | alizade | 9455971234 | Engineering | Computer Engineering | 1365-04-02 | Lorestan | 125 street | 9811231234 | 09123456987 | 02139687521
 2 | armin | rashno | 9455971124 | Engineering | Computer Engineering | 1369-04-01 | Lorestan | 122 street | 9811213234 | 09122356987 | 02139687121
 3 | bager | dolatsha | 9455971112 | Engineering | Computer Engineering | 1361-04-04 | Lorestan | 1212 street | 9811213134 | 09122312987 | 02139687112
(3 rows)

lorestanuniv=# -- Run as Sara
lorestanuniv=# SELECT * FROM course;
 cid | cname | department | credit
-----+-----+-----+-----
 1 | database systems | computer engineering | 3
 2 | simple data | computer engineering | 2
 3 | AGI & AI | computer engineering | 4
(3 rows)

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

lorestanuniv=# -- Run as Sara
lorestanuniv=# SELECT * FROM PresentedCourses;
 cid | lid
-----+-----
 1 | 1
 2 | 2
 3 | 3
(3 rows)

lorestanuniv=#
```