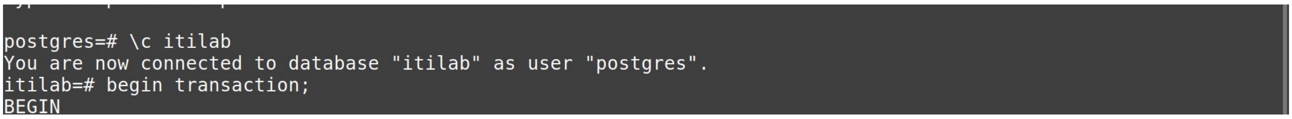
Python 22-23 / Minia / postgreSql
lab3 for day2-Hager haron

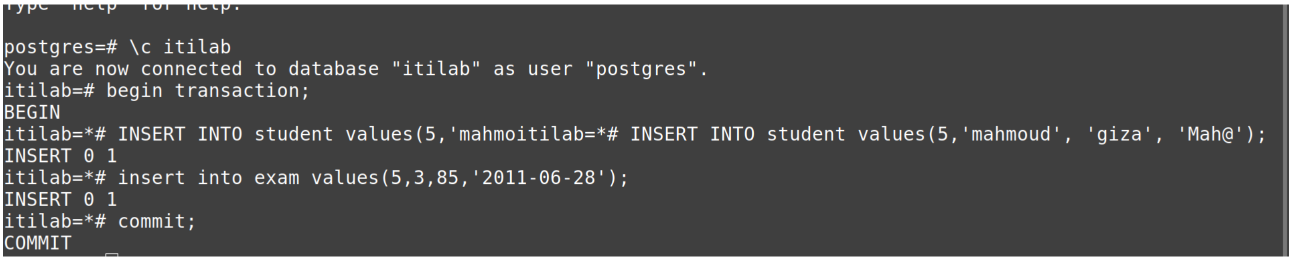
1- Insert new student and his score in exam in different subjects as transaction and save it.

begin transaction;



```
postgres=# \c itilab
You are now connected to database "itilab" as user "postgres".
itilab=# begin transaction;
BEGIN
```

INSERT INTO student values(5,'mahmoud', 'giza', 'Mah@');
insert into exam values(5,3,85,'2011-06-28');
commit;

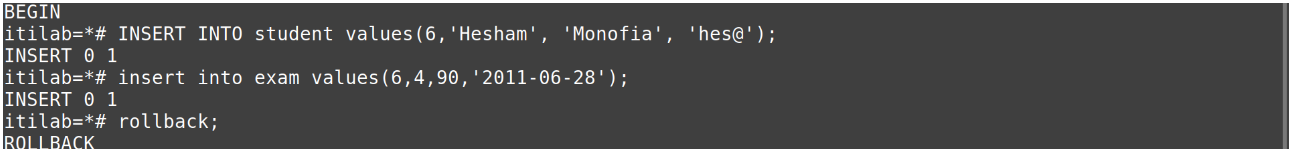


```
Type "help" for help.

postgres=# \c itilab
You are now connected to database "itilab" as user "postgres".
itilab=# begin transaction;
BEGIN
itilab=*# INSERT INTO student values(5,'mahmoitilab=*# INSERT INTO student values(5,'mahmoud', 'giza', 'Mah@');
INSERT 0 1
itilab=*# insert into exam values(5,3,85,'2011-06-28');
INSERT 0 1
itilab=*# commit;
COMMIT
```

2- Insert new students and his score in exam in different subjects as transaction and undo it.

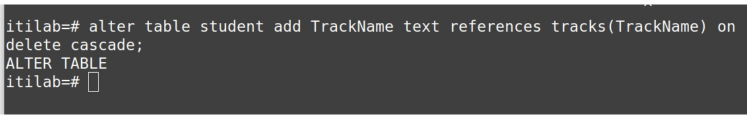
INSERT INTO student values(6,'Hesham', 'Monofia', 'hes@');
insert into exam values(6,4,90,'2011-06-28');
rollback;



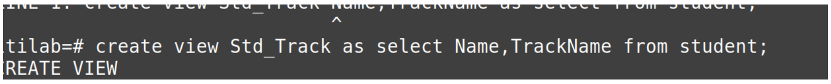
```
BEGIN
itilab=*# INSERT INTO student values(6,'Hesham', 'Monofia', 'hes@');
INSERT 0 1
itilab=*# insert into exam values(6,4,90,'2011-06-28');
INSERT 0 1
itilab=*# rollback;
ROLLBACK
```

3- Create a view for student names with their Tracks names which is belong to it.

alter table student add TrackName text references tracks(TrackName) on delete cascade;
create view Std_Track as select Name,TrackName from student;



```
itilab=# alter table student add TrackName text references tracks(TrackName) on
delete cascade;
ALTER TABLE
itilab=# 
```



```
INE 1: create view Std_Track Name,TrackName as select from student;
                                ^
tilab=# create view Std_Track as select Name,TrackName from student;
REATE VIEW
```

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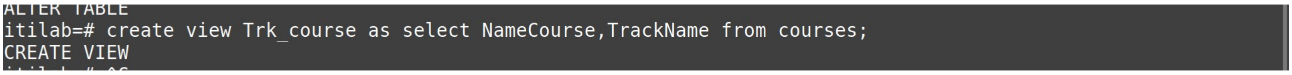
4- Create a view for Tracks names and the subjects which is belong/study to it.

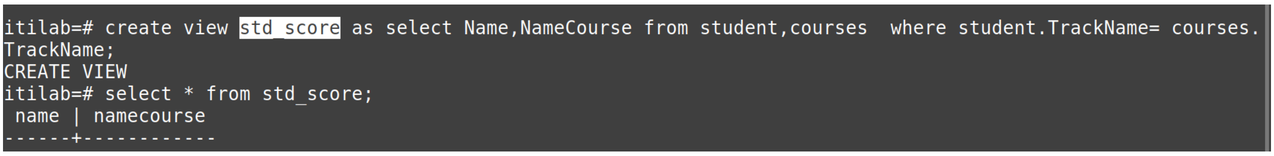
create view Trk_course as select NameCourse,TrackName from courses;



```
ALTER TABLE
itilab=# create view Trk_course as select NameCourse,TrackName from courses;
CREATE VIEW
```

5- Create a view for student names with their subject's names.

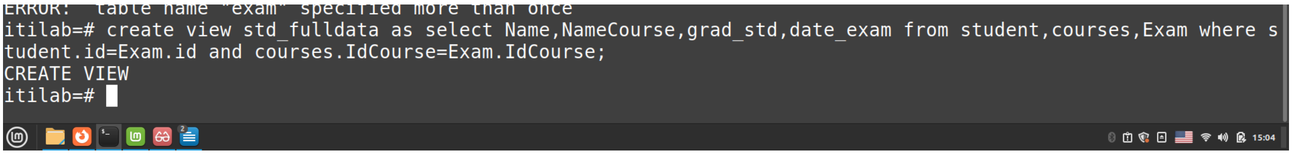
create view std_score as select Name,NameCourse from student,courses where student.TrackName= courses.TrackName;



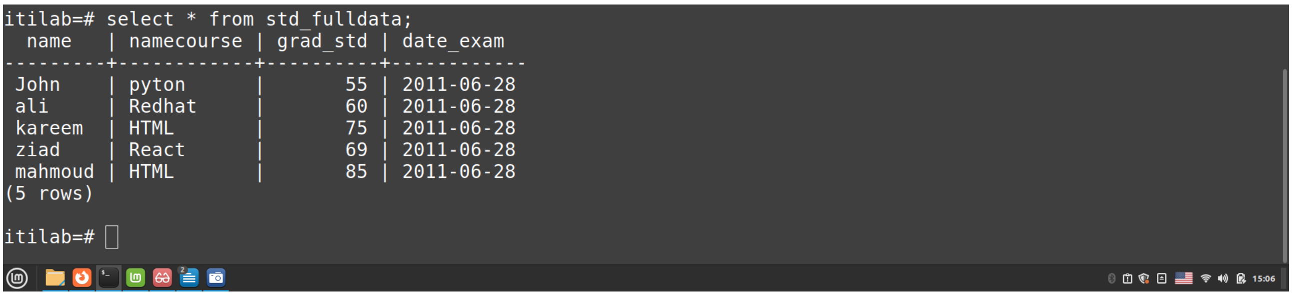
```
itilab=# create view std_score as select Name,NameCourse from student,courses  where student.TrackName= courses.
TrackName;
CREATE VIEW
itilab=# select * from std_score;
 name | namecourse
------+------------
```

6. Create a view for all students name (Full Name) with their score in each subject and its date.

create view std_fulldata as select Name,NameCourse,grad_std,date_exam from student,courses,Exam where student.id=Exam.id and courses.IdCourse=Exam. IdCourse;



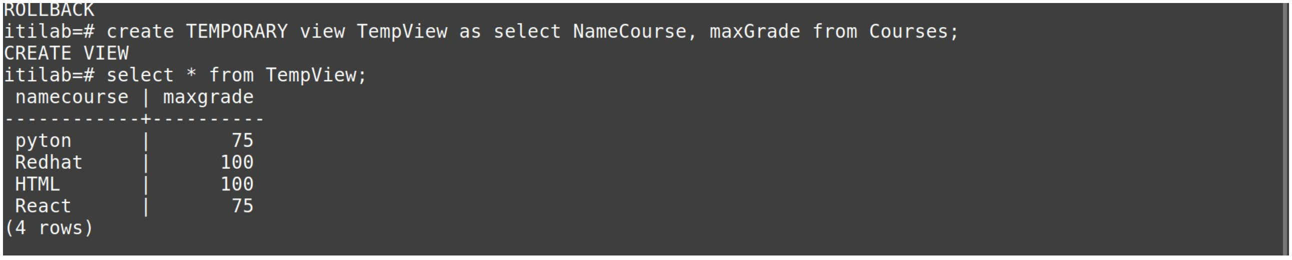
```
ERROR:  table name "exam" specified more than once
itilab=# create view std_fulldata as select Name,NameCourse,grad_std,date_exam from student,courses,Exam where s
tudent.id=Exam.id and courses.IdCourse=Exam.IdCourse;
CREATE VIEW
itilab=# 
```



```
itilab=# select * from std_fulldata;
  name   | namecourse | grad_std | date_exam
---------+------------+----------+------------
 John    | pyton      |       55 | 2011-06-28
 ali     | Redhat     |       60 | 2011-06-28
 kareem  | HTML       |       75 | 2011-06-28
 ziad    | React      |       69 | 2011-06-28
 mahmoud | HTML       |       85 | 2011-06-28
(5 rows)

itilab=# 
```

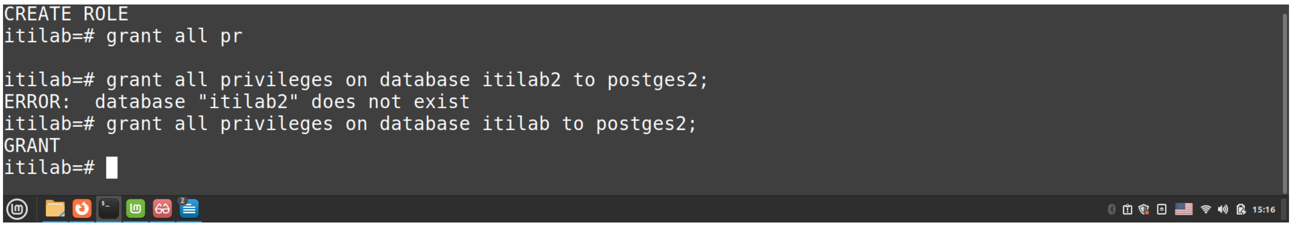
7- create TEMPORARY view TempView as select NameCourse, maxGrade from Courses;
select * from TempView;



```
ROLLBACK
itilab=# create TEMPORARY view TempView as select NameCourse, maxGrade from Courses;
CREATE VIEW
itilab=# select * from TempView;
 namecourse | maxgrade
------------+----------
 pyton      |       75
 Redhat     |      100
 HTML       |      100
 React      |       75
(4 rows)
```

8. **Create user and give him all privileges.**

create user postges2;
grant all privileges on database itilab to postges2;



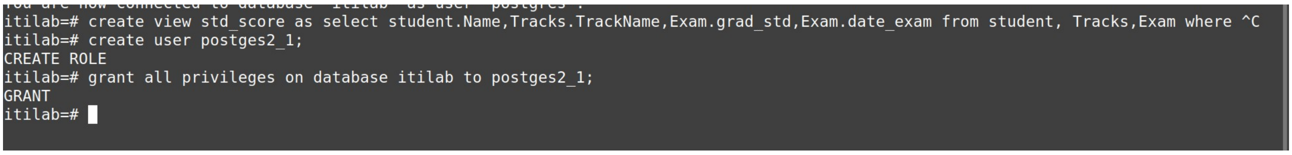
```
CREATE ROLE
itilab=# grant all pr

itilab=# grant all privileges on database itilab2 to postges2;
ERROR:  database "itilab2" does not exist
itilab=# grant all privileges on database itilab to postges2;
GRANT
itilab=# 
```

9. **Create another new user and make the authentication method is ’trust” and give him all privileges if he login from his “local” server.**

create user postges2_1;

grant all privileges on database itilab to postges2_1;
GRANT



```
You are now connected to database "itilab" as user "postgres".
itilab=# create view std_score as select student.Name,Tracks.TrackName,Exam.grad_std,Exam.date_exam from student, Tracks,Exam where ^C
itilab=# create user postges2_1;
CREATE ROLE
itilab=# grant all privileges on database itilab to postges2_1;
GRANT
itilab=# 
```

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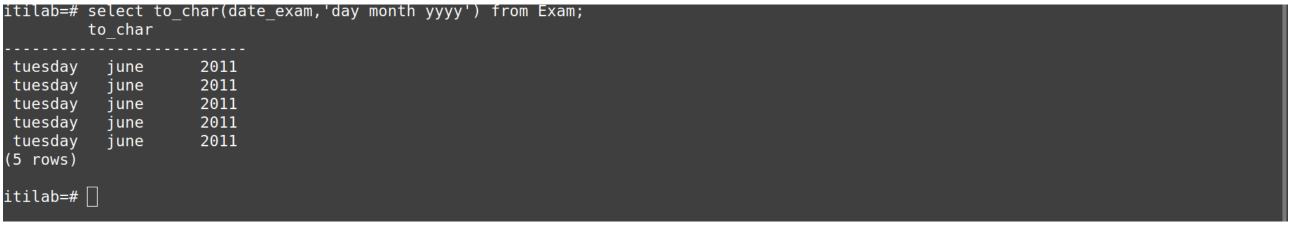
10.(from Q.6) Display the date of exam as the following: day 'month name' year.

select to_char(date_exam,'day month yyyy') from Exam;

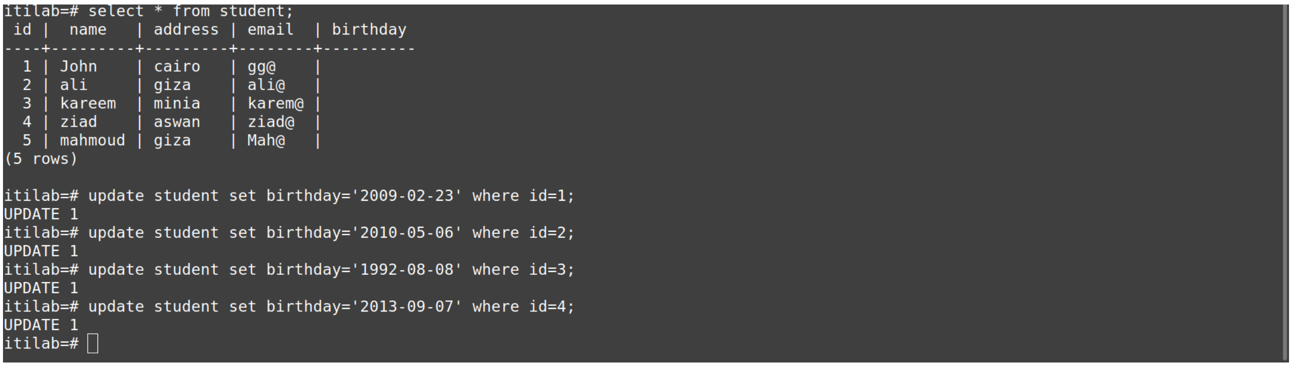


```
itilab=# select to_char(date_exam,'day month yyyy') from Exam;
        to_char
--------------------------
 tuesday   june      2011
 tuesday   june      2011
 tuesday   june      2011
 tuesday   june      2011
 tuesday   june      2011
(5 rows)

itilab=# 
```

11.Display name and age of each students

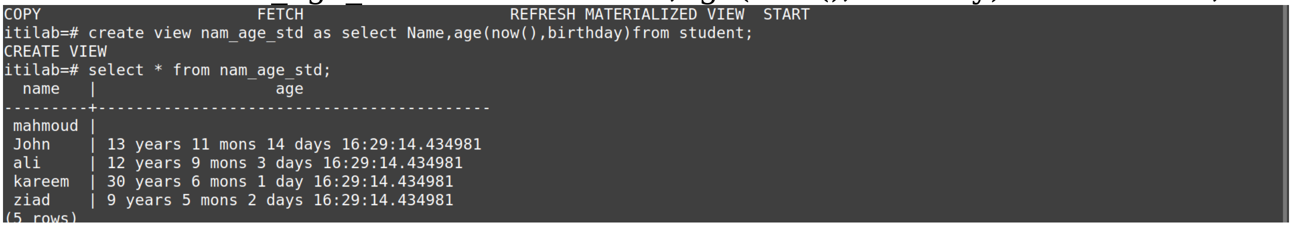
alter table student add column birthday date;



```
itilab=# select * from student;
 id |  name   | address | email  | birthday
----+---------+---------+--------+----------
  1 | John    | cairo   | gg@    |
  2 | ali     | giza    | ali@   |
  3 | kareem  | minia   | karem@ |
  4 | ziad    | aswan   | ziad@  |
  5 | mahmoud | giza    | Mah@   |
(5 rows)

itilab=# update student set birthday='2009-02-23' where id=1;
UPDATE 1
itilab=# update student set birthday='2010-05-06' where id=2;
UPDATE 1
itilab=# update student set birthday='1992-08-08' where id=3;
UPDATE 1
itilab=# update student set birthday='2013-09-07' where id=4;
UPDATE 1
itilab=# 
```

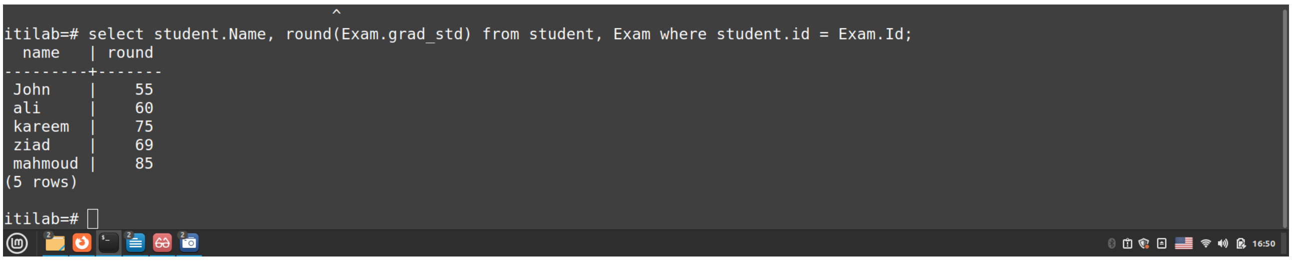
create view nam_age_std as select Name,age(now(),birthday)from student;



```
COPY                          FETCH                         REFRESH MATERIALIZED VIEW  START
itilab=# create view nam_age_std as select Name,age(now(),birthday)from student;
CREATE VIEW
itilab=# select * from nam_age_std;
  name   |                    age
---------+------------------------------------------
 mahmoud |
 John    | 13 years 11 mons 14 days 16:29:14.434981
 ali     | 12 years 9 mons 3 days 16:29:14.434981
 kareem  | 30 years 6 mons 1 day 16:29:14.434981
 ziad    | 9 years 5 mons 2 days 16:29:14.434981
(5 rows)
```

12.Display the name of students with their Rounded score in each subject

```
select student.Name, round(Exam.grad_std) from student, Exam where student.id = Exam.Id;
```



```
                                   ^
itilab=# select student.Name, round(Exam.grad_std) from student, Exam where student.id = Exam.Id;
  name   | round
---------+-------
 John    |    55
 ali     |    60
 kareem  |    75
 ziad    |    69
 mahmoud |    85
(5 rows)

itilab=# 
```

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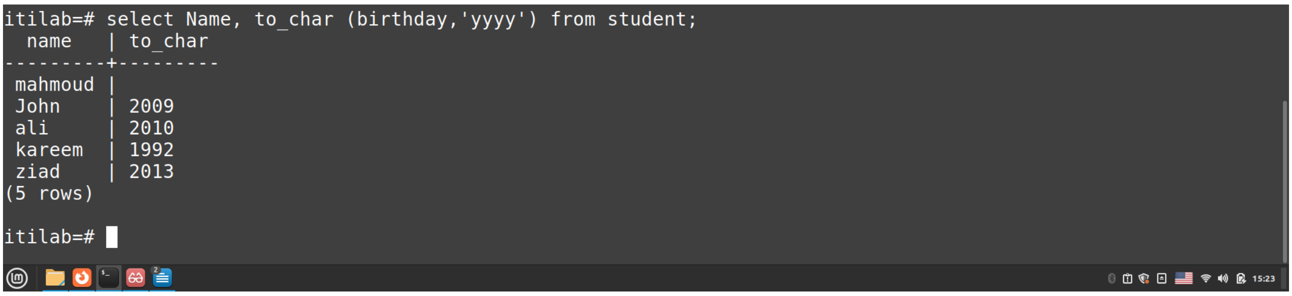
13-Display the name of students with the year of Birthdate.

```
select Name, to_char (birthday,'yyyy') from student;
```

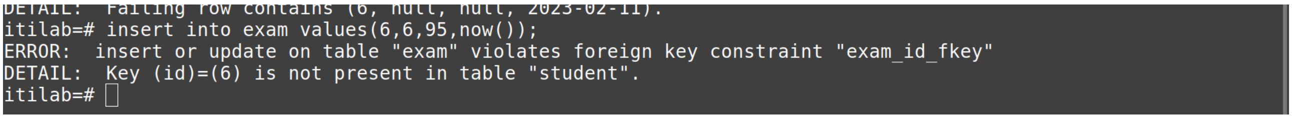


```
itilab=# select Name, to_char (birthday,'yyyy') from student;
  name   | to_char
---------+---------
 mahmoud |
 John    | 2009
 ali     | 2010
 kareem  | 1992
 ziad    | 2013
(5 rows)

itilab=# 
```

14.Add new exam result, in date column use NOW() function;

insert into exam values(6,6,95,now());

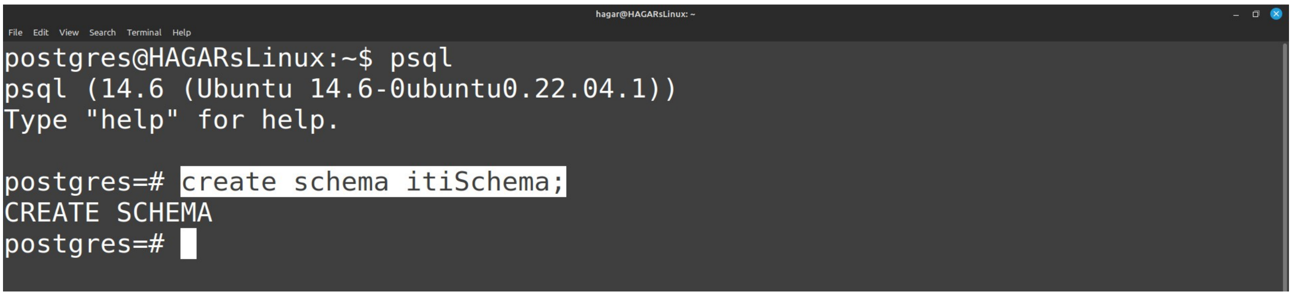


```
DETAIL:  Failing row contains (6, null, null, 2023-02-11).
itilab=# insert into exam values(6,6,95,now());
ERROR:  insert or update on table "exam" violates foreign key constraint "exam_id_fkey"
DETAIL:  Key (id)=(6) is not present in table "student".
itilab=# 
```

15-Create database called ITI, and create different schema and Tables inside this schema

create schema itiSchema;

any table will create after this code will belong to schema itiSchema



```
postgres@HAGARsLinux:~$ psql
psql (14.6 (Ubuntu 14.6-0ubuntu0.22.04.1))
Type "help" for help.

postgres=# create schema itiSchema;
CREATE SCHEMA
postgres=# 
```