Q3- Create a view for student names with their Tracks names which is belong to it.

```
iti=# create view student_track as select (student.first_name || ' ' || student.last_name) as student_name, track.name as track_n
ame from student join track on student.track_id = track.track_id;
CREATE VIEW
iti=# select * from student_track;
 student_name  |       track_name
---------------+----------------------------
 nabil ali     | cyber security
 ahmed ali     | fullstack using python
 Mohammed ali  | fullstack using python
 nabil ali     | fullstack using .net
 nabil ali     | 2d graphic
 ahmed nabil   | fullstack using python
(6 rows)
```

Q4- Create a view for Tracks names and the subjects which is belong/study to it.

```
iti=# CREATE VIEW track_courses AS
SELECT
    track.name AS track_name,
    string_agg(course.name, ', ') AS courses
FROM
    track_course
JOIN
    track ON track_course.track_id = track.track_id
JOIN
    course ON track_course.course_id = course.course_id
GROUP BY
    track.name;
CREATE VIEW
iti=# select * from track_courses;
      track_name         |              courses
-------------------------+------------------------------------
 cyber security          | networking
 fullstack using .net    | client side, .net
 fullstack using python  | client side, database, react, django
(3 rows)
```

Q5- Create a view for student names with their subject's names which will study.

```
iti=# create view student_courses as select (s.first_name || ' ' || s.last_name) as full_name, c.name as course_name from student
s join track_course tr on s.track_id = tr.track_id join course c on c.course_id = tr.course_id;
CREATE VIEW
iti=# select * from student_courses;
  full_name   | course_name
--------------+-------------
 ahmed nabil  | client side
 Mohammed ali | client side
 ahmed ali    | client side
 ahmed nabil  | database
 Mohammed ali | database
 ahmed ali    | database
 ahmed nabil  | react
 Mohammed ali | react
 ahmed ali    | react
 ahmed nabil  | django
 Mohammed ali | django
 ahmed ali    | django
 nabil ali    | client side
 nabil ali    | .net
 nabil ali    | networking
(15 rows)

iti=#
```

Q6- Create a view for all students name (Full Name) with their score in each subject and its date.

```
iti=# create view student_exams as select (student.first_name || ' ' || student.last_name) as full_name, student_exam.score, exam
.exam_date from student_exam join student on student_exam.student_id = student.student_id join exam on student_exam.exam_id = exa
m.exam_id;
CREATE VIEW
iti=# select * from student_exams
iti-# ;
  full_name    | score |       exam_date
--------------+-------+----------------------------
 ahmed ali     |    80 | 2024-07-29 18:53:22.26751
 Mohammed ali  |    90 | 2024-07-29 18:53:22.26751
 nabil ali     |    98 | 2024-07-07 18:50:43
 nabil ali     |    87 | 2024-07-29 18:53:22.26751
 nabil ali     |    70 | 2024-07-07 18:50:43
 ahmed nabil   |    95 | 2024-07-07 18:50:43
(6 rows)

iti=#
```

Q7- Create a temporary view for all subjects with their max_score.

```
iti=# create TEMPORARY view course_max_grade as select name, max_score from course;
CREATE VIEW
iti=# select * from course_max_grade;
    name     | max_score
-------------+-----------
 client side |       100
 networking  |       100
 .net        |       100
 react       |        80
 database    |        85
 django      |        90
(6 rows)

iti=#
```

Q10- (from Q.6) Display the date of exam as the following: day 'month name' year.

```
iti=# select full_name, score, to_char(exam_date, 'day month YYYY') as exam_date from student_exams;
  full_name    | score |       exam_date
--------------+-------+----------------------------
 ahmed ali     |    80 | monday    july      2024
 Mohammed ali  |    90 | monday    july      2024
 nabil ali     |    98 | sunday    july      2024
 nabil ali     |    87 | monday    july      2024
 nabil ali     |    70 | sunday    july      2024
 ahmed nabil   |    95 | sunday    july      2024
(6 rows)

iti=#
```

Q11- Display name and age of each students

```
iti=# select (first_name || ' ' || last_name) as full_name , age(now(),  birth_date) from student;
  full_name   |                age
--------------+--------------------------------
 nabil ali    | 33 years 1 day 22:53:58.757914
 nabil ali    | 33 years 1 day 22:53:58.757914
 ahmed ali    | 33 years 1 day 22:53:58.757914
 Mohammed ali | 33 years 1 day 22:53:58.757914
 nabil ali    | 33 years 1 day 22:53:58.757914
 nabil ali    | 33 years 1 day 22:53:58.757914
 ahmed nabil  | 3 days 22:53:58.757914
(7 rows)

iti=#
```

Q12- Display the name of students with their Rounded score in each subject

```
iti=# select full_name, round(score, 2) from student_exams;
  full_name   | round
--------------+-------
 ahmed ali    | 80.00
 Mohammed ali | 90.00
 nabil ali    | 98.00
 nabil ali    | 87.00
 nabil ali    | 70.00
 ahmed nabil  | 95.00
(6 rows)

iti=#
```

Q13- Display the name of students with the year of Birthdate

```
iti=# select (first_name || ' ' || last_name) as full_name , date_part('year', birth_date) from student;
  full_name   | date_part
--------------+-----------
 nabil ali    |      1991
 nabil ali    |      1991
 ahmed ali    |      1991
 Mohammed ali |      1991
 nabil ali    |      1991
 nabil ali    |      1991
 ahmed nabil  |      2024
(7 rows)

iti=#
```

Q14- Add new exam result, in date column use NOW() function;

```
iti=# insert into exam (exam_date) values (now());
INSERT 0 1
iti=#
```

Q15- Create database called ITI, and create different schema and Tables inside this Schema

```
iti=# CREATE SCHEMA hr;
CREATE SCHEMA
iti=# CREATE SCHEMA finance;
CREATE SCHEMA
iti=# CREATE TABLE hr.employees (
    employee_id SERIAL PRIMARY KEY,
    first_name VARCHAR(50),
    last_name VARCHAR(50),
    email VARCHAR(100),
    hire_date DATE
);
CREATE TABLE
iti=# CREATE TABLE finance.transactions (
    transaction_id SERIAL PRIMARY KEY,
    account_number INT,
    transaction_type VARCHAR(50),
    amount DECIMAL(10, 2),
    transaction_date DATE
);
CREATE TABLE
iti=#
```