Write a query to find out which subjects are not associated with any track.

```
task1=# SELECT sub_name
FROM subject
LEFT JOIN track_sub ON subject.id = track_sub.sub_id
WHERE track_sub.track_id IS NULL;
 sub_name
----------
(0 rows)
```

Display name and age of each student

```
task1=# SELECT e_name, DATE_PART('year', AGE(birth_date)) AS age
FROM student;
     e_name     | age
----------------+-----
 Ahmed Shawky |  30
 Sara Hany    |  34
 Ali Zaki     |  36
(3 rows)

task1=#
```

Display the name of students with their rounded score in each subject

```
task1=# SELECT student.e_name, subject.sub_name, ROUND(grades.gra
de) AS rounded_score
FROM grades
JOIN student ON grades.stu_id = student.id
JOIN subject ON grades.sub_id = subject.id;
    e_name     |  sub_name  | rounded_score
---------------+------------+---------------
 Ahmed Shawky | HTML       |            85
 Ahmed Shawky | Python     |            90
 Sara Hany    | Python     |            78
 Ali Zaki     | Networking |            88
(4 rows)

task1=#
```

Display the name of students with the year of Birthdate

```
task1=# SELECT e_name, EXTRACT(YEAR FROM birth_date) AS birth_yea
r
FROM student;
    e_name    | birth_year
--------------+------------
 Ahmed Shawky |       1995
 Sara Hany    |       1990
 Ali Zaki     |       1988
(3 rows)

task1=#
```

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

```
task1=# INSERT INTO exam (date) VALUES (NOW());
INSERT 0 1
task1=# select * from exam;
 id |    date
----+------------
  1 | 2024-10-01
  2 | 2024-12-15
  3 | 2025-03-01
  4 | 2025-04-30
(4 rows)

task1=#
```

Write a query to calculate the average grade obtained by a specific student across all exams.

```
task1=# SELECT student.e_name, AVG(grades.grade) AS average_score

FROM grades
JOIN student ON grades.stu_id = student.id
WHERE student.e_name = 'Ahmed Shawky'
GROUP BY student.e_name;
    e_name    |    average_score
--------------+---------------------
 Ahmed Shawky | 87.5000000000000000
(1 row)

task1=#
```

Write a query to replace all occurrences of 'gmail.com' in email addresses

with 'iti.com'.

```
task1=# UPDATE student
SET email = REPLACE(email, 'mail.com', 'iti.com')
WHERE email LIKE '%mail.com';
UPDATE 3
task1=# select * from student
;
 id |    e_name    |     email     |  address   | track_id | birth_date | gender
----+--------------+---------------+------------+----------+------------+--------
  1 | Ahmed Shawky | ahmed@iti.com | Cairo      |        1 | 1995-01-10 | Male
  2 | Sara Hany    | sara@iti.com  | Giza       |        2 | 1990-08-23 | Female
  3 | Ali Zaki     | ali@iti.com   | Alexandria |        3 | 1988-06-12 | Male
(3 rows)

task1=#
```

Write a query to calculate the difference in days between the current date and each exam date.

```
task1=# SELECT id, date, CURRENT_DATE - date AS days_diff
FROM exam;
 id |    date    | days_diff
----+------------+-----------
  1 | 2024-10-01 |       212
  2 | 2024-12-15 |       137
  3 | 2025-03-01 |        61
  4 | 2025-04-30 |         1
(4 rows)

task1=#
```

Write a query to check if each student's email address ends with '.com'.

```
task1=# SELECT e_name, email,
       email LIKE '%.com' AS ends_with_com
FROM student;
    e_name    |     email     | ends_with_com
--------------+---------------+---------------
 Ahmed Shawky | ahmed@iti.com | t
 Sara Hany    | sara@iti.com  | t
 Ali Zaki     | ali@iti.com   | t
(3 rows)

task1=#
```

Display each exam date like ‘MM/DD/YYYY’

```
task1=# SELECT TO_CHAR(date, 'MM/DD/YYYY') AS formatted_date
FROM exam;
 formatted_date
----------------
 10/01/2024
 12/15/2024
 03/01/2025
 04/30/2025
(4 rows)

task1=# select date from exam
task1-# ;
    date
------------
 2024-10-01
 2024-12-15
 2025-03-01
 2025-04-30
(4 rows)

task1=#
```