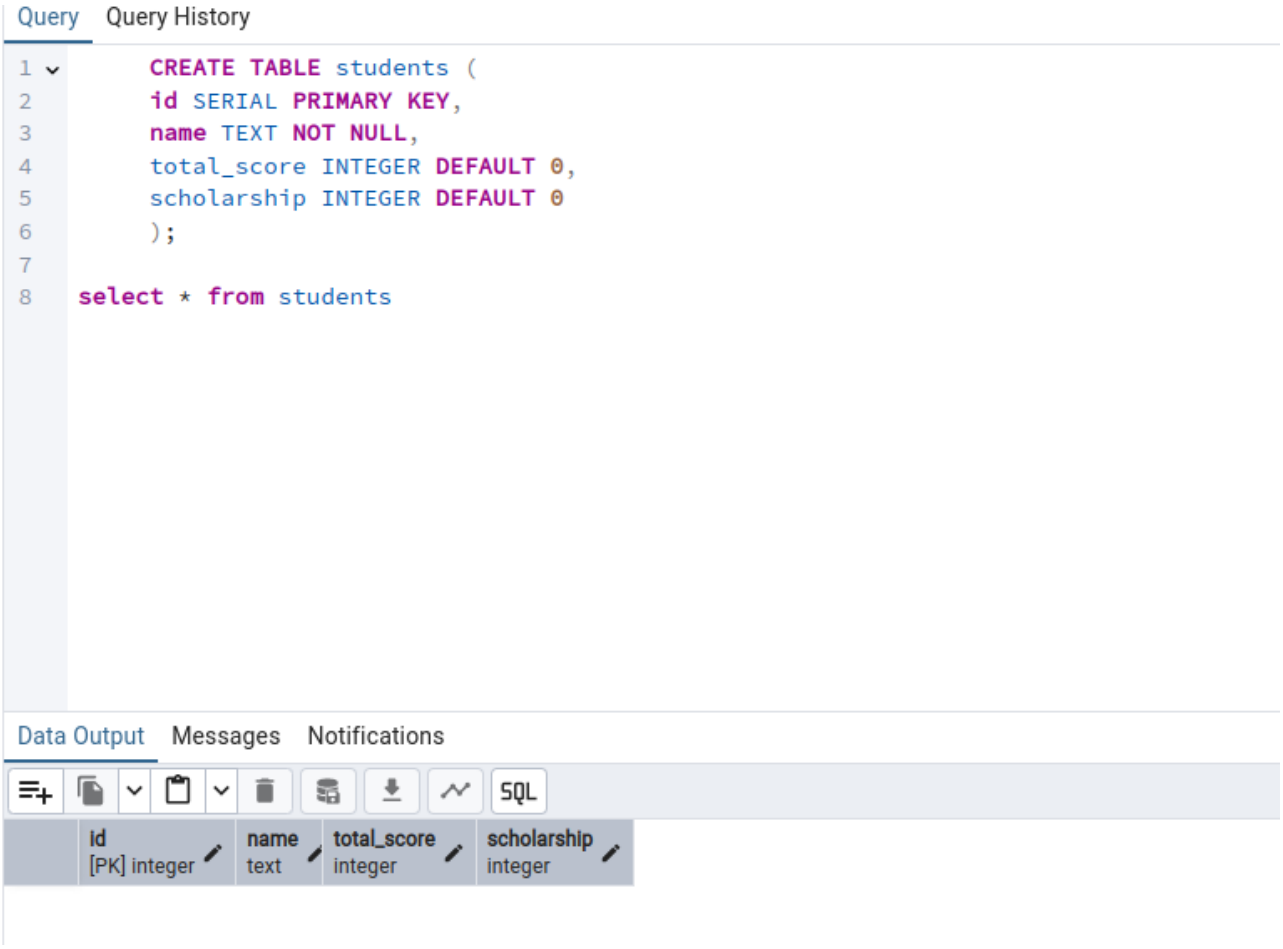
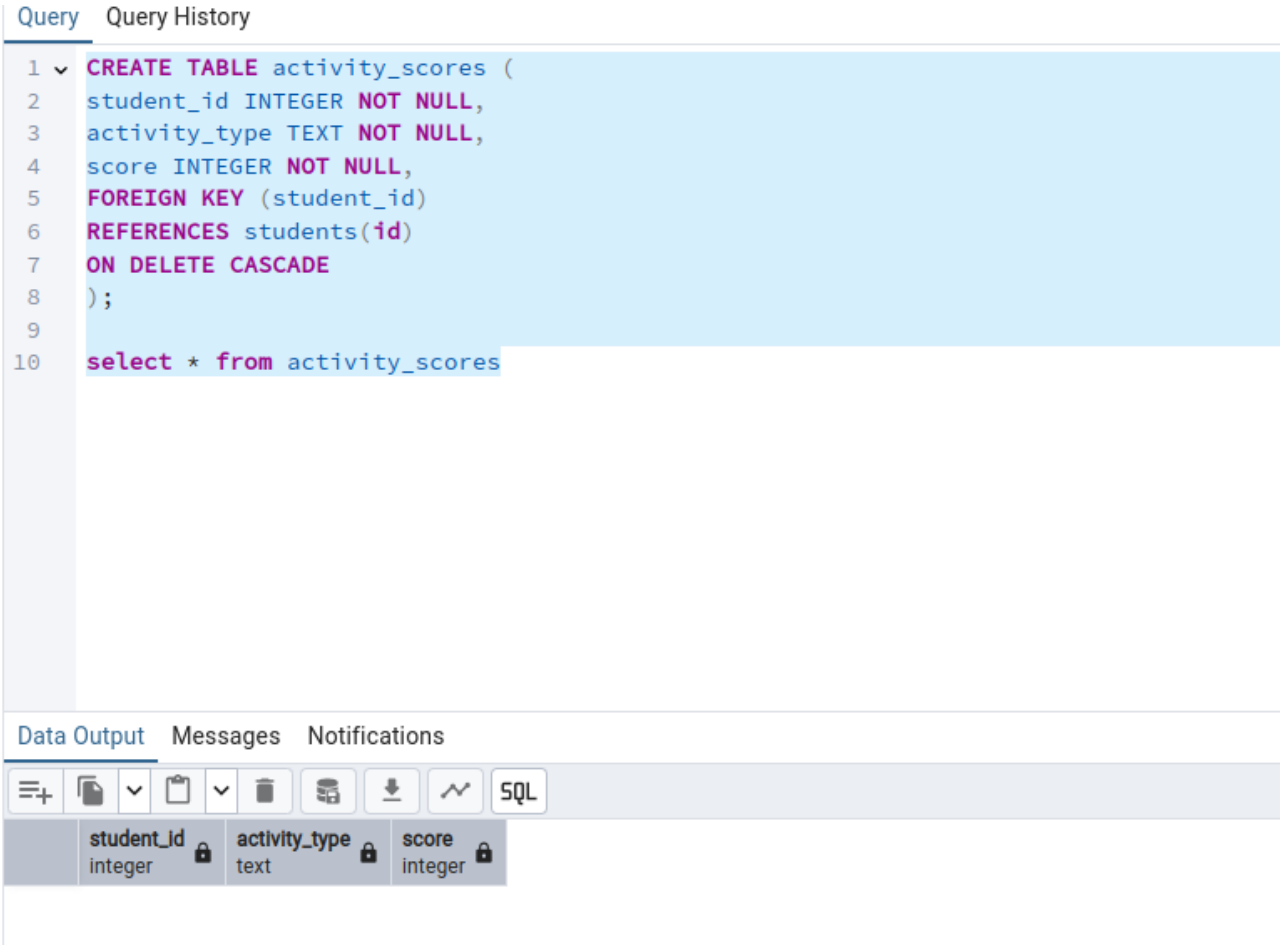
Задание 0.

```
CREATE TABLE students (
id SERIAL PRIMARY KEY,
name TEXT NOT NULL,
total_score INTEGER DEFAULT 0,
scholarship INTEGER DEFAULT 0
);
```




```
CREATE TABLE activity_scores (
student_id INTEGER NOT NULL,
activity_type TEXT NOT NULL,
score INTEGER NOT NULL,
FOREIGN KEY (student_id)
REFERENCES students(id)
ON DELETE CASCADE
);
```




Задание 1.

1)
INSERT INTO students (name)
VALUES
('Андрей Аршавин'),
('Александр Кержаков'),
('Игорь Акинфеев');

Query | Query History

```
INSERT INTO students (name)
VALUES
('Андрей Аршавин'),
('Александр Кержаков'),
('Игорь Акинфеев');

select * from students
```

Data Output | Messages | Notifications

| | id [PK] integer | name text | total_score integer | scholarship integer |
|---|---|---|---|---|
| 1 | 1 | Андрей Аршавин | 0 | 0 |
| 2 | 2 | Александр Кержаков | 0 | 0 |
| 3 | 3 | Игорь Акинфеев | 0 | 0 |

2) INSERT INTO activity_scores (student_id, activity_type, score) VALUES
(1, 'Домашняя работа', 10),
(1, 'Экзамен', 25),
(1, 'Курсовая', 30),

(2, 'Экзамен', 8),
(2, 'Диплом', 28),

(3, 'Домашняя работа', 9),
(3, 'Экзамен', 22);

Query | Query History

```
INSERT INTO activity_scores (student_id, activity_type, score) VALUES
(1, 'Домашняя работа', 10),
(1, 'Экзамен', 25),
(1, 'Курсовая', 30),

(2, 'Экзамен', 8),
(2, 'Диплом', 28),

(3, 'Домашняя работа', 9),
(3, 'Экзамен', 22);

select * from activity_scores
```

Data Output | Messages | Notifications

| | student_id integer | activity_type text | score integer |
|---|---|---|---|
| 1 | 1 | Домашняя работа | 10 |
| 2 | 1 | Экзамен | 25 |
| 3 | 1 | Курсовая | 30 |
| 4 | 2 | Экзамен | 8 |
| 5 | 2 | Диплом | 28 |
| 6 | 3 | Домашняя работа | 9 |
| 7 | 3 | Экзамен | 22 |

3)

```
UPDATE students
  SET total_score = sub.total
  FROM (
  SELECT student_id, SUM(score) AS total
  FROM activity_scores
  GROUP BY student_id
  ) AS sub
  WHERE students.id = sub.student_id;
```

Query | Query History

```
1  UPDATE students
2     SET total_score = sub.total
3     FROM (
4     SELECT student_id, SUM(score) AS total
5     FROM activity_scores
6     GROUP BY student_id
7     ) AS sub
8     WHERE students.id = sub.student_id;
9
10 select * from students
```

Data Output | Messages | Notifications

| | id [PK] integer | name text | total_score integer | scholarship integer |
|---|---|---|---|---|
| 1 | 1 | Андрей Аршавин | 65 | 0 |
| 2 | 2 | Александр Кержаков | 36 | 0 |
| 3 | 3 | Игорь Акинфеев | 31 | 0 |

Задание 2.

```
UPDATE students
SET scholarship =
CASE
WHEN total_score >= 90 THEN 1000
WHEN total_score BETWEEN 80 AND 89 THEN 500
ELSE 0
END;
```

Query | Query History

```sql
UPDATE students
SET scholarship =
CASE
WHEN total_score >= 90 THEN 1000
WHEN total_score BETWEEN 80 AND 89 THEN 500
ELSE 0
END;


select * from students
```

Data Output | Messages | Notifications

| | id [PK] integer | name text | total_score integer | scholarship integer |
|---|---|---|---|---|
| 1 | 1 | Андрей Аршавин | 65 | 0 |
| 2 | 2 | Александр Кержаков | 36 | 0 |
| 3 | 3 | Игорь Акинфеев | 31 | 0 |

Задание 3.

Запрос на добавление:
INSERT INTO activity_scores (student_id, activity_type, score) VALUES
(1, 'Стажировка', 40),
(2, 'Стажировка', 50),
(3, 'Стажировка', 35);

Query | Query History

```sql
INSERT INTO activity_scores (student_id, activity_type, score) VALUES
(1, 'Стажировка', 40),
(2, 'Стажировка', 50),
(3, 'Стажировка', 35);


select * from activity_scores
```

Data Output | Messages | Notifications

| | student_id integer | activity_type text | score integer |
|---|---|---|---|
| 1 | 1 | Домашняя работа | 10 |
| 2 | 1 | Экзамен | 25 |
| 3 | 1 | Курсовая | 30 |
| 4 | 2 | Экзамен | 8 |
| 5 | 2 | Диплом | 28 |
| 6 | 3 | Домашняя работа | 9 |
| 7 | 3 | Экзамен | 22 |
| 8 | 1 | Стажировка | 40 |
| 9 | 2 | Стажировка | 50 |
| 10 | 3 | Стажировка | 35 |

Результат:

Query | Query History

```sql
UPDATE students
   SET total_score = sub.total
   FROM (
   SELECT student_id, SUM(score) AS total
   FROM activity_scores
   GROUP BY student_id
   ) AS sub
   WHERE students.id = sub.student_id;

UPDATE students
SET scholarship =
CASE
WHEN total_score >= 90 THEN 1000
WHEN total_score BETWEEN 80 AND 89 THEN 500
ELSE 0
END;


select * from students
```

Data Output | Messages | Notifications

| | id [PK] integer | name text | total_score integer | scholarship integer |
|---|---|---|---|---|
| 1 | 1 | Андрей Аршавин | 105 | 1000 |
| 2 | 2 | Александр Кержаков | 86 | 500 |
| 3 | 3 | Игорь Акинфеев | 66 | 0 |