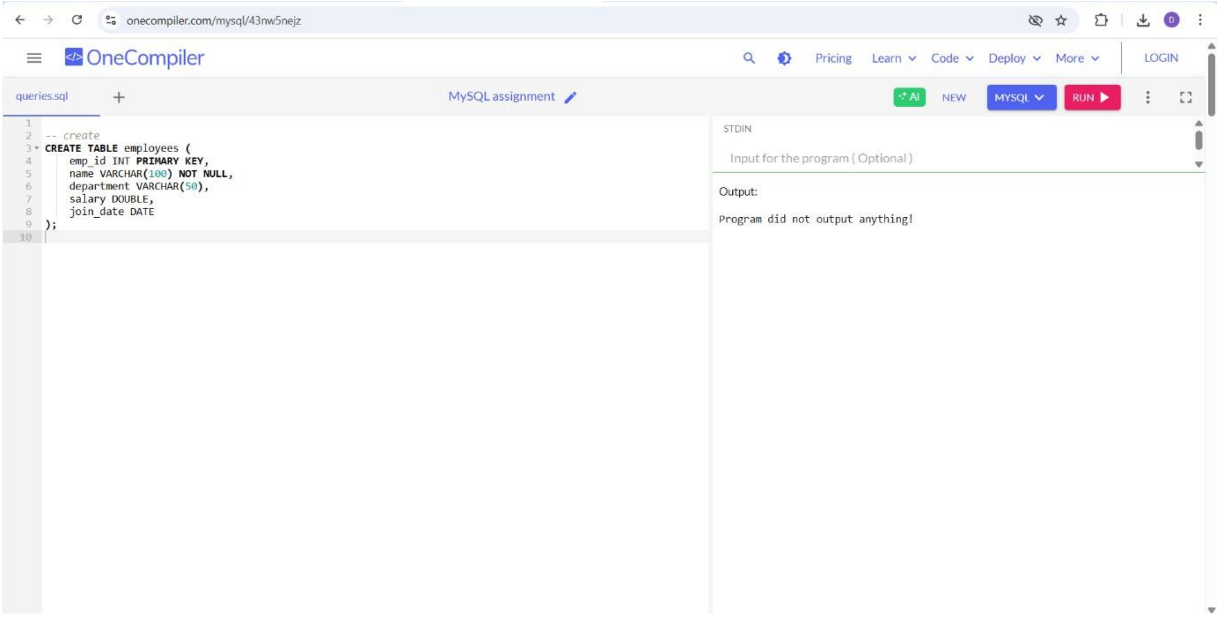
NAME:ASHWINI BASAVARAJ SIMPAGER

1) CREATING TABLE

```
CREATE TABLE employees
    ( emp_id INT PRIMARY
    KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
    join_date DATE
);
```



```
-- create
CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
    join_date DATE
);
```

Input for the program (Optional)

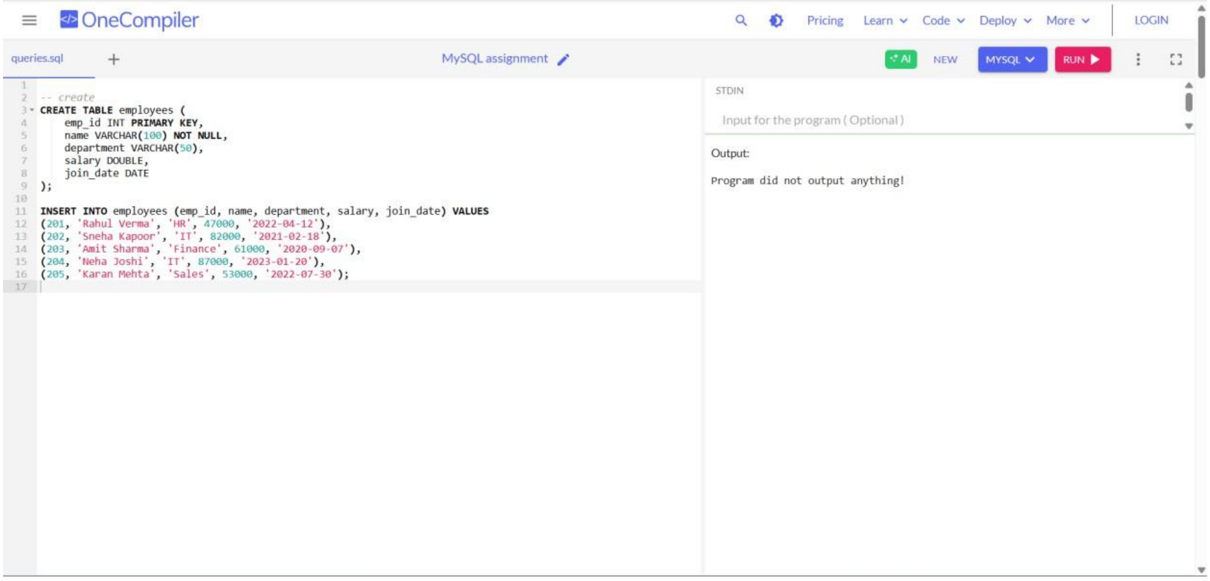
Output:

```
Program did not output anything!
```

2) INSERT QUERY

```
INSERT INTO employees (emp_id, name, department, salary, join_date) VALUES
(201, 'Rahul Verma', 'HR', 47000, '2022-04-12'),
(202, 'Sneha Kapoor', 'IT', 82000, '2021-02-18'),
(203, 'Amit Sharma', 'Finance', 61000, '2020-09-07'),
(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
```

(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');



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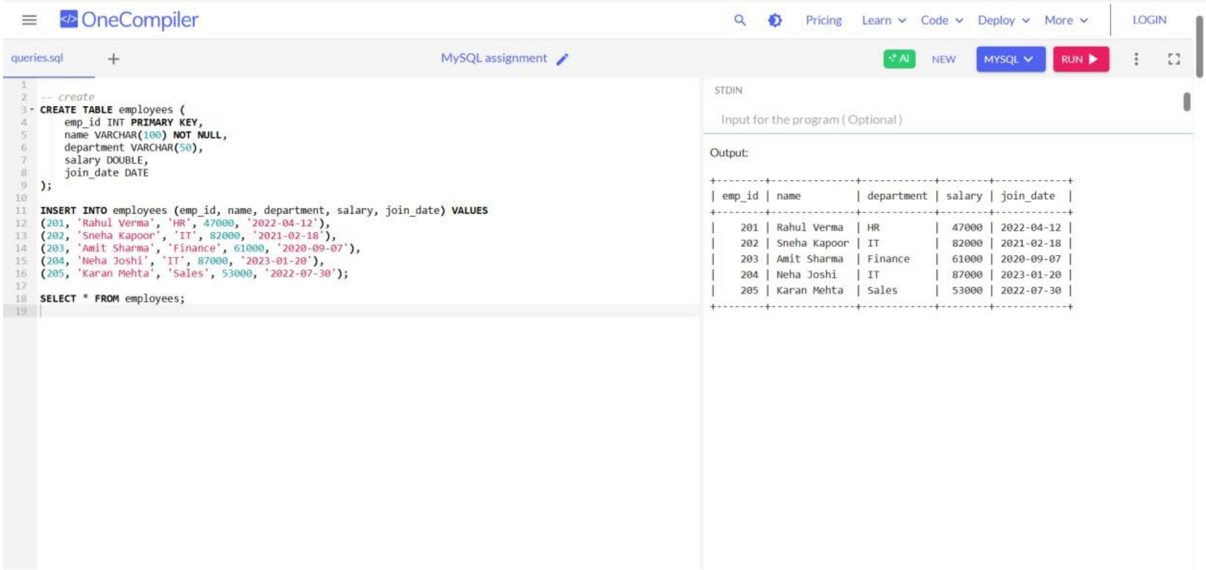
(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');
```

Output:

```
Program did not output anything!
```

3) SELECT QUERY

- SELECT * FROM employees;



```

-- create
CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
    join_date DATE
);

INSERT INTO employees (emp_id, name, department, salary, join_date) VALUES
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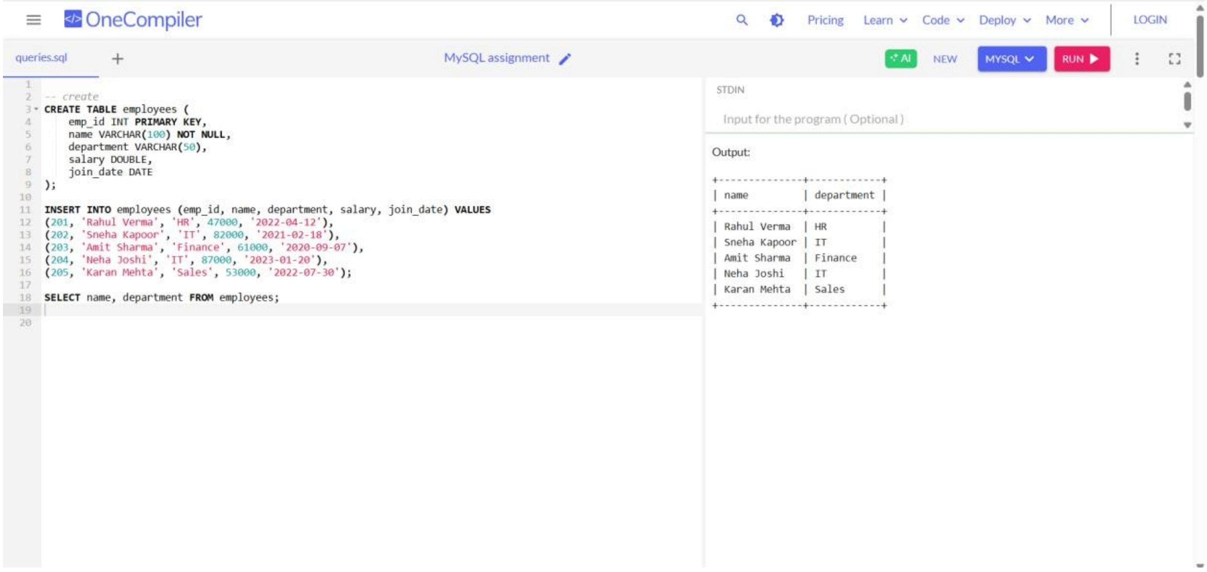
(203, 'Amit Sharma', 'Finance', 61000, '2020-09-07'),
(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

SELECT * FROM employees;
```

Output:

```
+--------+--------------+------------+--------+------------+
| emp_id | name         | department | salary | join_date  |
+--------+--------------+------------+--------+------------+
|    201 | Rahul Verma  | HR         |  47000 | 2022-04-12 |
|    202 | Sneha Kapoor | IT         |  82000 | 2021-02-18 |
|    203 | Amit Sharma  | Finance    |  61000 | 2020-09-07 |
|    204 | Neha Joshi   | IT         |  87000 | 2023-01-20 |
|    205 | Karan Mehta  | Sales      |  53000 | 2022-07-30 |
+--------+--------------+------------+--------+------------+
```

- SELECT name, department FROM employees;



```

-- create
CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
    join_date DATE
);

INSERT INTO employees (emp_id, name, department, salary, join_date) VALUES
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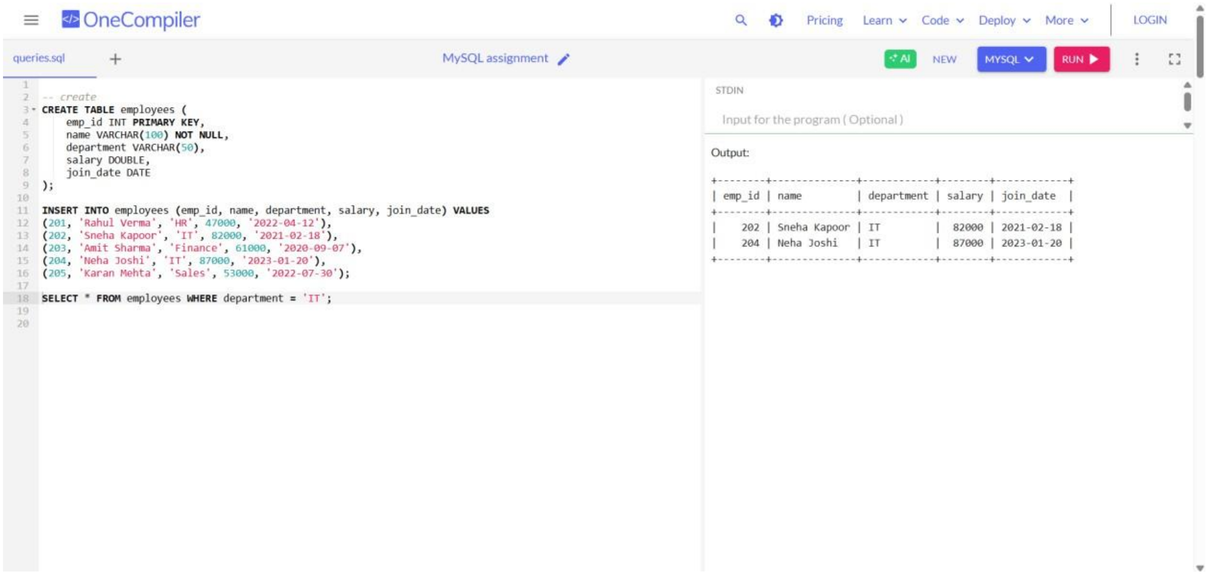
(203, 'Amit Sharma', 'Finance', 61000, '2020-09-07'),
(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

SELECT name, department FROM employees;
```

Output:

```
+--------------+------------+
| name         | department |
+--------------+------------+
| Rahul Verma  | HR         |
| Sneha Kapoor | IT         |
| Amit Sharma  | Finance    |
| Neha Joshi   | IT         |
| Karan Mehta  | Sales      |
+--------------+------------+
```

- SELECT * FROM employees WHERE department = 'IT';



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CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
    join_date DATE
);

INSERT INTO employees (emp_id, name, department, salary, join_date) VALUES
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(202, 'Sneha Kapoor', 'IT', 82000, '2021-02-18'),
(203, 'Amit Sharma', 'Finance', 61000, '2020-09-07'),
(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

SELECT * FROM employees WHERE department = 'IT';
```
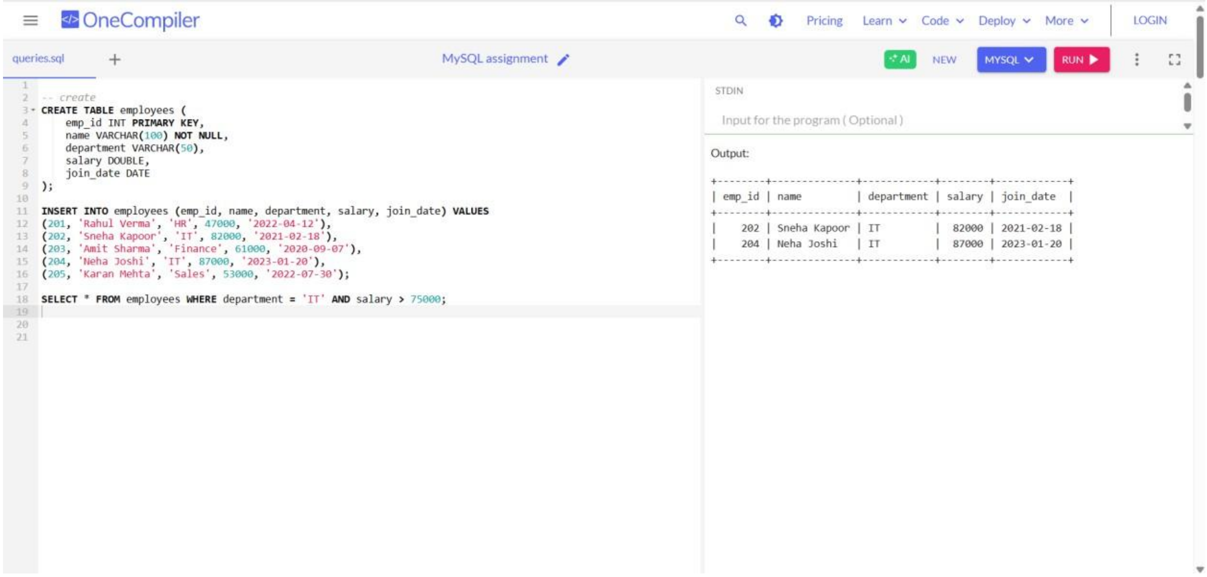

Output:

```
+--------+--------------+------------+--------+------------+
| emp_id | name         | department | salary | join_date  |
+--------+--------------+------------+--------+------------+
|    202 | Sneha Kapoor | IT         |  82000 | 2021-02-18 |
|    204 | Neha Joshi   | IT         |  87000 | 2023-01-20 |
+--------+--------------+------------+--------+------------+
```

4) AND, IN BETWEEN & LIKE

- SELECT * FROM employees WHERE department = 'IT' AND salary > 75000;



```sql
-- create
CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
    join_date DATE
);

INSERT INTO employees (emp_id, name, department, salary, join_date) VALUES
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(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

SELECT * FROM employees WHERE department = 'IT' AND salary > 75000;
```
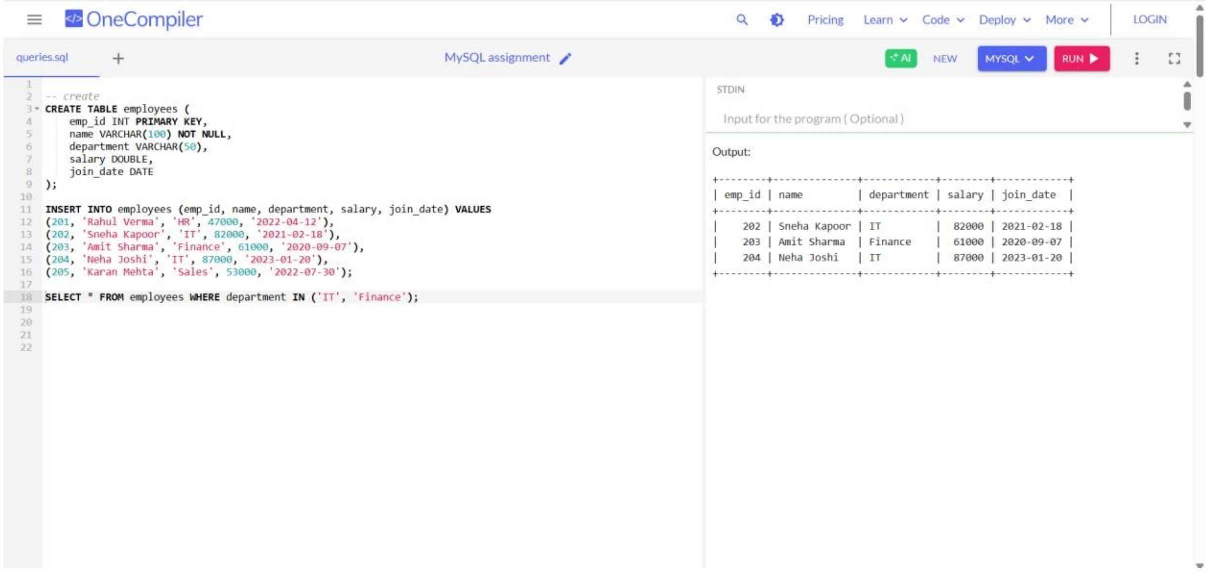

Output:

```
+--------+--------------+------------+--------+------------+
| emp_id | name         | department | salary | join_date  |
+--------+--------------+------------+--------+------------+
|    202 | Sneha Kapoor | IT         |  82000 | 2021-02-18 |
|    204 | Neha Joshi   | IT         |  87000 | 2023-01-20 |
+--------+--------------+------------+--------+------------+
```

- SELECT * FROM employees WHERE department IN ('IT', 'Finance');



```sql
-- create
CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
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);

INSERT INTO employees (emp_id, name, department, salary, join_date) VALUES
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(203, 'Amit Sharma', 'Finance', 61000, '2020-09-07'),
(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

SELECT * FROM employees WHERE department IN ('IT', 'Finance');
```
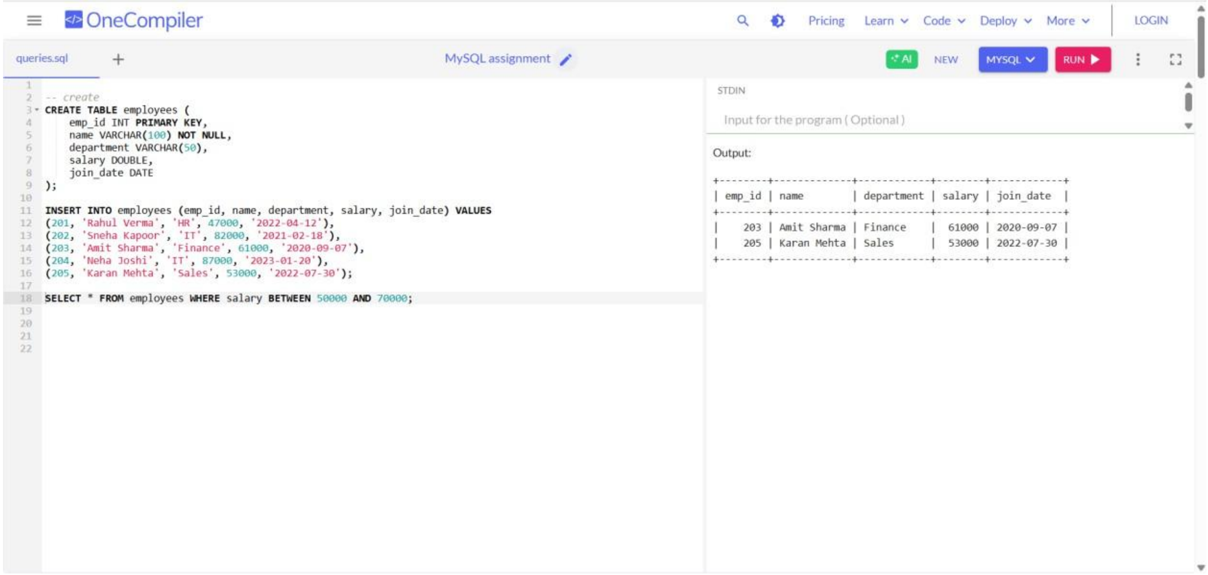

Output:

```
+--------+--------------+------------+--------+------------+
| emp_id | name         | department | salary | join_date  |
+--------+--------------+------------+--------+------------+
|    202 | Sneha Kapoor | IT         |  82000 | 2021-02-18 |
|    203 | Amit Sharma  | Finance    |  61000 | 2020-09-07 |
|    204 | Neha Joshi   | IT         |  87000 | 2023-01-20 |
+--------+--------------+------------+--------+------------+
```

- SELECT * FROM employees WHERE salary BETWEEN 50000 AND 70000;



```sql

-- create
CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
    join_date DATE
);

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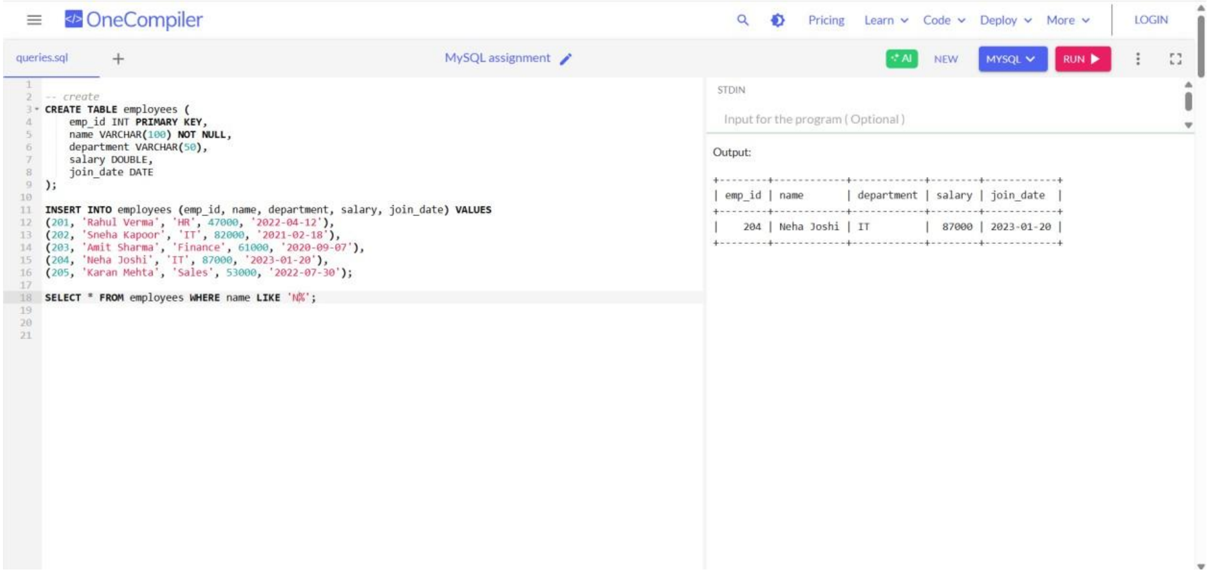
(203, 'Amit Sharma', 'Finance', 61000, '2020-09-07'),
(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

SELECT * FROM employees WHERE salary BETWEEN 50000 AND 70000;
```

Output:

```
+--------+-------------+------------+--------+------------+
| emp_id | name        | department | salary | join_date  |
+--------+-------------+------------+--------+------------+
|    203 | Amit Sharma | Finance    |  61000 | 2020-09-07 |
|    205 | Karan Mehta | Sales      |  53000 | 2022-07-30 |
+--------+-------------+------------+--------+------------+
```

- SELECT * FROM employees WHERE name LIKE 'N%'; -- Names starting with J



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-- create
CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
    join_date DATE
);

INSERT INTO employees (emp_id, name, department, salary, join_date) VALUES
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(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

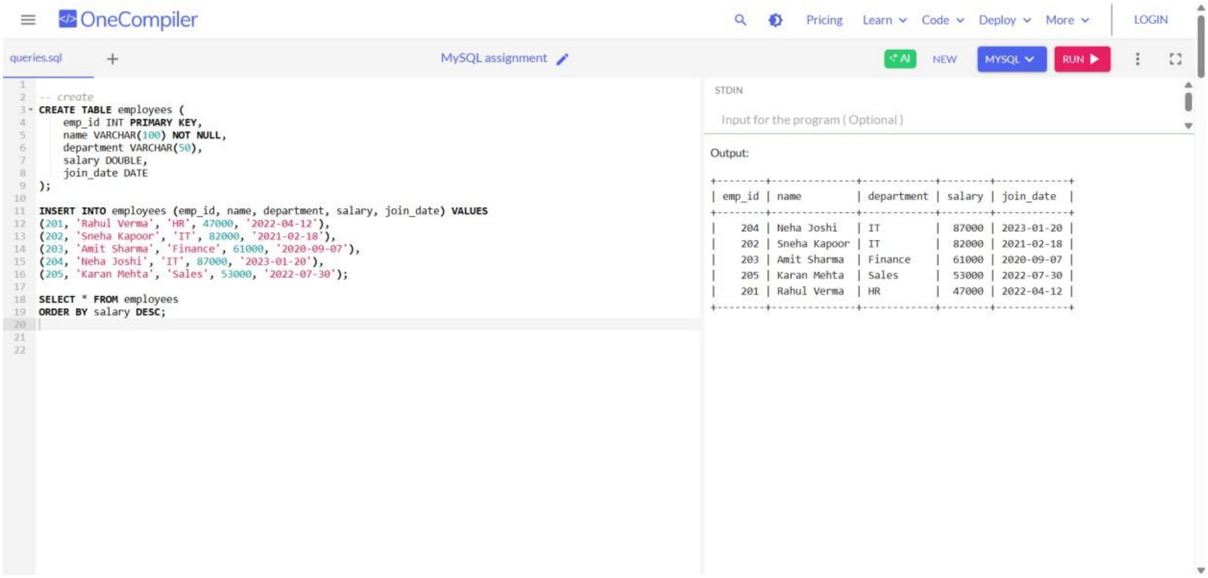
SELECT * FROM employees WHERE name LIKE 'N%';
```

Output:

```
+--------+------------+------------+--------+------------+
| emp_id | name       | department | salary | join_date  |
+--------+------------+------------+--------+------------+
|    204 | Neha Joshi | IT         |  87000 | 2023-01-20 |
+--------+------------+------------+--------+------------+
```

5) CLAUSE -ORDER BY, WHERE, HAVING

SELECT * FROM employees
ORDER BY salary DESC;



```sql

-- create
CREATE TABLE employees (
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    department VARCHAR(50),
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(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

SELECT * FROM employees
ORDER BY salary DESC;
```
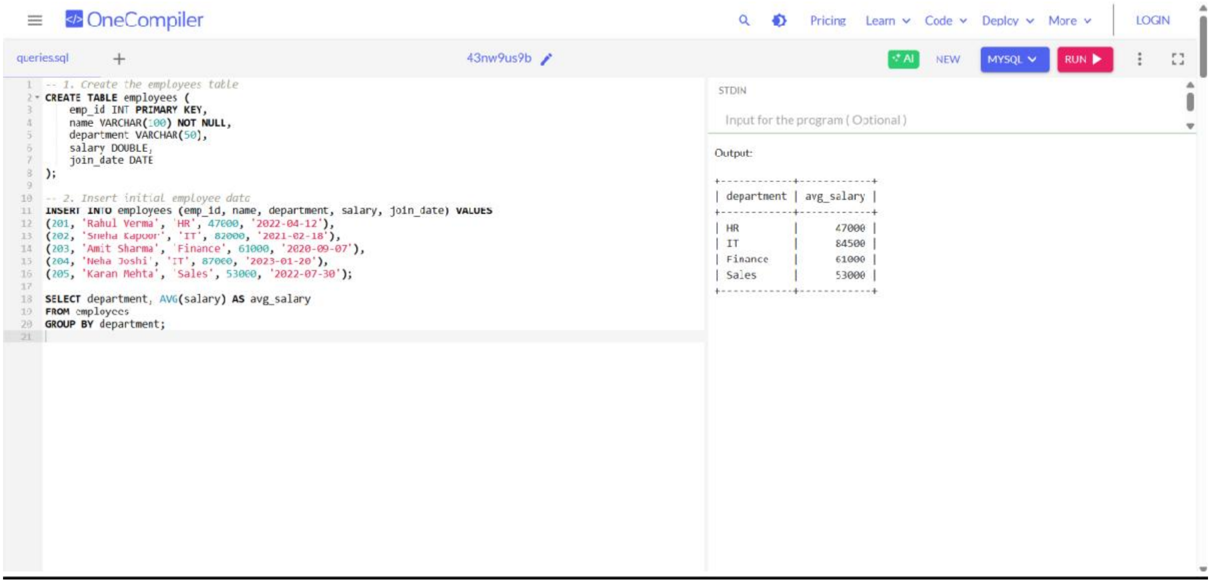

```
+--------+--------------+------------+--------+------------+
| emp_id | name         | department | salary | join_date  |
+--------+--------------+------------+--------+------------+
|    204 | Neha Joshi   | IT         |  87000 | 2023-01-20 |
|    202 | Sneha Kapoor | IT         |  82000 | 2021-02-18 |
|    203 | Amit Sharma  | Finance    |  61000 | 2020-09-07 |
|    205 | Karan Mehta  | Sales      |  53000 | 2022-07-30 |
|    201 | Rahul Verma  | HR         |  47000 | 2022-04-12 |
+--------+--------------+------------+--------+------------+
```

6) UPDATE QUERY

- SELECT department, AVG(salary) AS avg_salary
  FROM employees
  GROUP BY department;



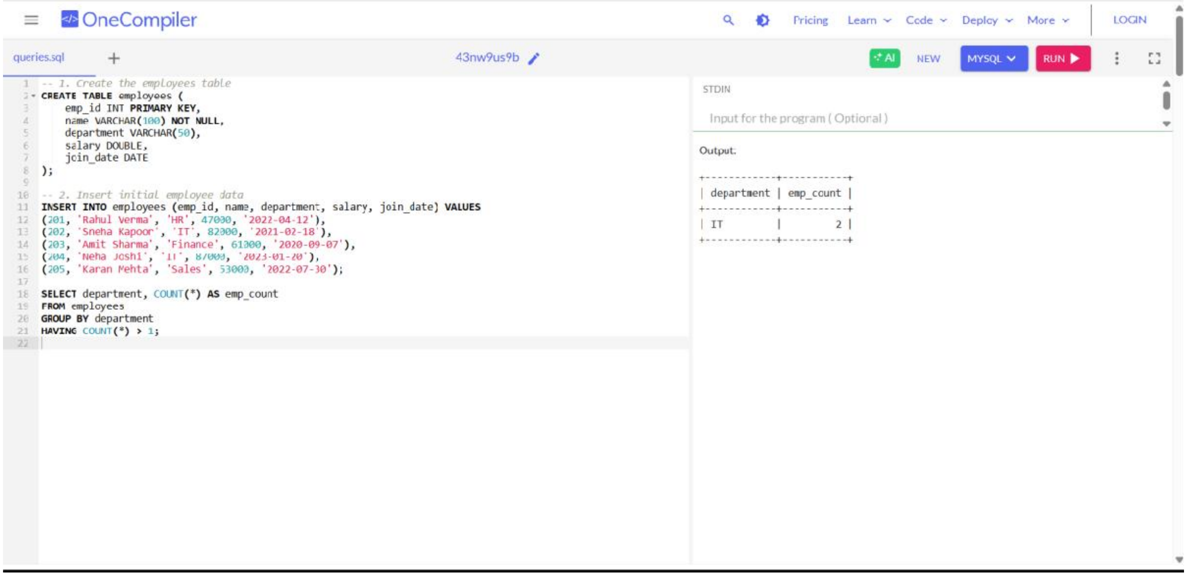
```sql
-- 1. Create the employees table
CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    department VARCHAR(50),
    salary DOUBLE,
    join_date DATE
);

-- 2. Insert initial employee data
INSERT INTO employees (emp_id, name, department, salary, join_date) VALUES
(201, 'Rahul Verma', 'HR', 47000, '2022-04-12'),
(202, 'Sneha Kapoor', 'IT', 82000, '2021-02-18'),
(203, 'Amit Sharma', 'Finance', 61000, '2020-09-07'),
(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

SELECT department, AVG(salary) AS avg_salary
FROM employees
GROUP BY department;
```

```
+------------+------------+
| department | avg_salary |
+------------+------------+
| HR         |      47000 |
| IT         |      84500 |
| Finance    |      61000 |
| Sales      |      53000 |
+------------+------------+
```

- SELECT department, COUNT(*) AS emp_count
  FROM employees
  GROUP BY department
  HAVING COUNT(*) > 1;



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CREATE TABLE employees (
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(204, 'Neha Joshi', 'IT', 87000, '2023-01-20'),
(205, 'Karan Mehta', 'Sales', 53000, '2022-07-30');

SELECT department, COUNT(*) AS emp_count
FROM employees
GROUP BY department
HAVING COUNT(*) > 1;
```

```
+------------+-----------+
| department | emp_count |
+------------+-----------+
| IT         |         2 |
+------------+-----------+
```