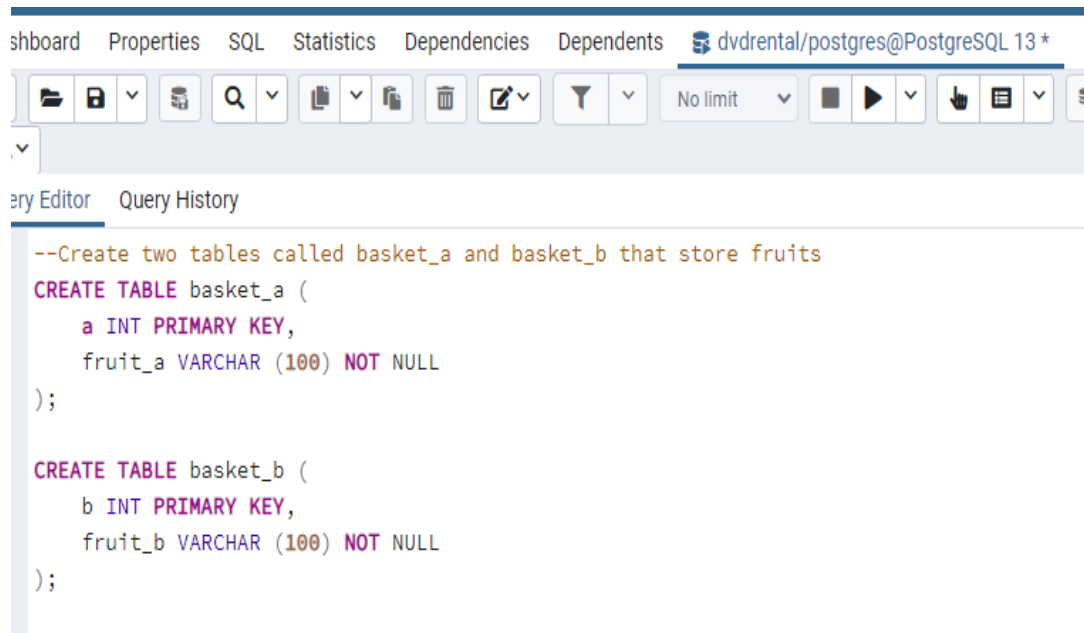


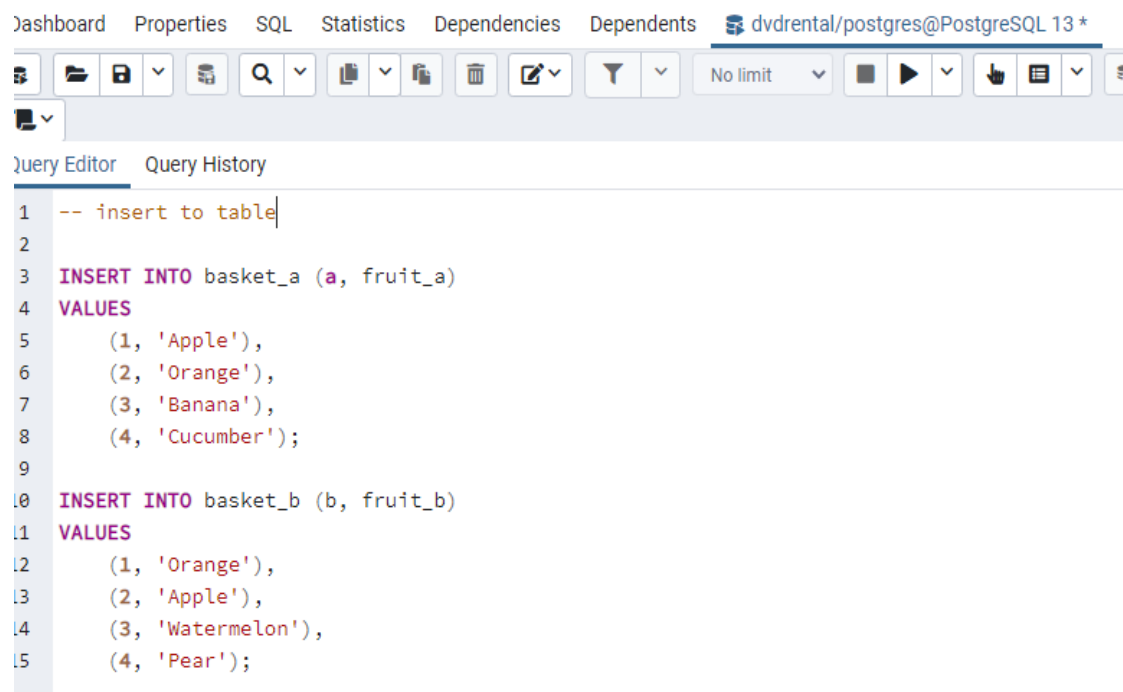
Section 3. Joining Multiple Tables (Joins)



The screenshot shows a PostgreSQL query editor window with a toolbar at the top containing icons for file operations, search, and execution. The title bar indicates the connection is 'dvdrental/postgres@PostgreSQL 13 *'. Below the toolbar, there are tabs for 'Query Editor' and 'Query History'. The main text area contains the following SQL code:

```
--Create two tables called basket_a and basket_b that store fruits
CREATE TABLE basket_a (
  a INT PRIMARY KEY,
  fruit_a VARCHAR (100) NOT NULL
);

CREATE TABLE basket_b (
  b INT PRIMARY KEY,
  fruit_b VARCHAR (100) NOT NULL
);
```



The screenshot shows the same PostgreSQL query editor window. The title bar and toolbar are identical. The 'Query Editor' tab is active, and the main text area contains the following SQL code:

```
1  -- insert to table|
2
3  INSERT INTO basket_a (a, fruit_a)
4  VALUES
5    (1, 'Apple'),
6    (2, 'Orange'),
7    (3, 'Banana'),
8    (4, 'Cucumber');
9
10 INSERT INTO basket_b (b, fruit_b)
11 VALUES
12    (1, 'Orange'),
13    (2, 'Apple'),
14    (3, 'Watermelon'),
15    (4, 'Pear');
```

POSTGRESQL INNER JOIN

Dashboard Properties SQL Statistics Dependencies Dependents dvdrental/postgres@PostgreSQL 13 *

Query Editor Query History

```
1 --PostgreSQL inner join
2 SELECT
3     a,
4     fruit_a,
5     b,
6     fruit_b
7 FROM
8     basket_a
9 INNER JOIN basket_b
10     ON fruit_a = fruit_b;
```

Data Output Explain Messages Notifications

	a integer	fruit_a character varying (100)	b integer	fruit_b character varying (100)
1	1	Apple	2	Apple
2	2	Orange	1	Orange

POSTGRESQL LEFT JOIN

Dashboard Properties SQL Statistics Dependencies Dependents dvdrental/postgres@PostgreSQL 13 *

Query Editor Query History

```
1 --PostgreSQL left join
2 SELECT
3     a,
4     fruit_a,
5     b,
6     fruit_b
7 FROM
8     basket_a
9 LEFT JOIN basket_b
10     ON fruit_a = fruit_b;
```

Data Output Explain Messages Notifications

	a integer	fruit_a character varying (100)	b integer	fruit_b character varying (100)
1	1	Apple	2	Apple
2	2	Orange	1	Orange
3	3	Banana	[null]	[null]
4	4	Cucumber	[null]	[null]

POSTGRESQL LEFT OUTER JOIN

Dashboard Properties SQL Statistics Dependencies Dependents dvdrental/postgres

Query Editor Query History

```
1 --POSTGRESQL LEFT OUTER JOIN
2 SELECT
3     a,
4     fruit_a,
5     b,
6     fruit_b
7 FROM
8     basket_a
9 LEFT JOIN basket_b
10 ON fruit_a = fruit_b
11 WHERE b IS NULL;
```

Data Output Explain Messages Notifications

	a integer	fruit_a character varying (100)	b integer	fruit_b character varying (100)
1	3	Banana	[null]	[null]
2	4	Cucumber	[null]	[null]

PostgreSQL right join

Dashboard Properties SQL Statistics Dependencies Dependents dvdrental/postgres@PostgreSQL 13 *

Query Editor Query History

```
1 --PostgreSQL right join
2 SELECT
3     a,
4     fruit_a,
5     b,
6     fruit_b
7 FROM
8     basket_a
9 RIGHT JOIN basket_b ON fruit_a = fruit_b;
```

Data Output Explain Messages Notifications

	a integer	fruit_a character varying (100)	b integer	fruit_b character varying (100)
1	2	Orange	1	Orange
2	1	Apple	2	Apple
3	[null]	[null]	3	Watermelon
4	[null]	[null]	4	Pear

RIGHT OUTER JOIN

Dashboard Properties SQL Statistics Dependencies Dependents dvdrental/postgres@PostgreSQL 13 *

Query Editor Query History

```
1 --RIGHT OUTER JOIN
2 SELECT
3     a,
4     fruit_a,
5     b,
6     fruit_b
7 FROM
8     basket_a
9 RIGHT JOIN basket_b
10 ON fruit_a = fruit_b
11 WHERE a IS NULL;
```

Data Output Explain Messages Notifications

	a integer	fruit_a character varying (100)	b integer	fruit_b character varying (100)
1	[null]	[null]	3	Watermelon
2	[null]	[null]	4	Pear

FULL OUTER JOIN

Dashboard Properties SQL Statistics Dependencies Dependents dvdrental/postgres@PostgreSQL 13 *

Query Editor Query History

```
1 --FULL OUTER JOIN
2 SELECT
3     a,
4     fruit_a,
5     b,
6     fruit_b
7 FROM
8     basket_a
9 FULL OUTER JOIN basket_b
10 ON fruit_a = fruit_b;
```

Data Output Explain Messages Notifications

	a integer	fruit_a character varying (100)	b integer	fruit_b character varying (100)
1	1	Apple	2	Apple
2	2	Orange	1	Orange
3	3	Banana	[null]	[null]
4	4	Cucumber	[null]	[null]
5	[null]	[null]	3	Watermelon
6	[null]	[null]	4	Pear

