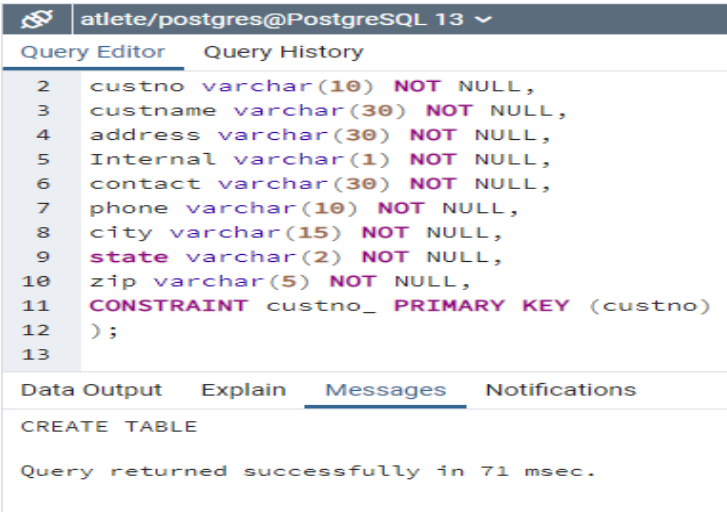


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Data Warehouse dan Bisnis Intelligence



The screenshot shows a PostgreSQL query editor interface. The top bar indicates the user is 'atlete/postgres@PostgreSQL 13'. The 'Query Editor' tab is active, displaying a SQL query to create a table named 'customer'. The query defines columns: custno (varchar(10), NOT NULL), custname (varchar(30), NOT NULL), address (varchar(30), NOT NULL), Internal (varchar(1), NOT NULL), contact (varchar(30), NOT NULL), phone (varchar(10), NOT NULL), city (varchar(15), NOT NULL), state (varchar(2), NOT NULL), and zip (varchar(5), NOT NULL). It also includes a primary key constraint on the 'custno' column. Below the query editor, the 'Messages' tab is active, showing the message 'Query returned successfully in 71 msec.'.

<input type="checkbox"/>	Name	Owner	Partitioned table?	Comment
<input type="checkbox"/>	customer	postgres	False	

```
CREATE TABLE customer (custno
varchar(10) NOT NULL, custname
varchar(30) NOT NULL, address
varchar(30) NOT NULL, Internal
varchar(1) NOT NULL, contact
varchar(30) NOT NULL, phone
varchar(10) NOT NULL, city
varchar(15) NOT NULL,
state varchar(2) NOT NULL,
zip varchar(5) NOT NULL,
CONSTRAINT custno_ PRIMARY KEY (custno)
);
```

atlete/postgres@PostgreSQL 13

Query Editor Query History

```

1 CREATE TABLE facility (
2   facno varchar(10) NOT NULL,
3   facname varchar(30) NOT NULL,
4   CONSTRAINT facno_ PRIMARY KEY (facno)
5 );
6

```

Data Output Explain Messages Notifications

CREATE TABLE

Query returned successfully in 47 msec.

```

CREATE TABLE facility
( facno varchar(10) NOT NULL,
  facname varchar(30) NOT NULL,
  CONSTRAINT facno_ PRIMARY KEY (facno) );

```

<input type="checkbox"/>	Name	Owner	Partitioned table?	Comment
<input type="checkbox"/>	customer	postgres	False	
<input checked="" type="checkbox"/>	facility	postgres	False	

```

CREATE TABLE location (locno
varchar(10) NOT NULL, facno
varchar(10) NOT NULL, locname
varchar(30) NOT NULL,
CONSTRAINT locno_ PRIMARY KEY (locno)
)

```

atlete/postgres@PostgreSQL 13

Query Editor Query History

```

1 CREATE TABLE location (
2   locno varchar(10) NOT NULL,
3   facno varchar(10) NOT NULL,
4   locname varchar(30) NOT NULL,
5   CONSTRAINT locno_ PRIMARY KEY (locno)
6 );
7

```

Data Output Explain Messages Notifications

CREATE TABLE

Query returned successfully in 54 msec.

<input type="checkbox"/>	Name	Owner	Partitioned table?	Comment
<input type="checkbox"/>	customer	postgres	False	
<input type="checkbox"/>	facility	postgres	False	
<input checked="" type="checkbox"/>	location	postgres	False	

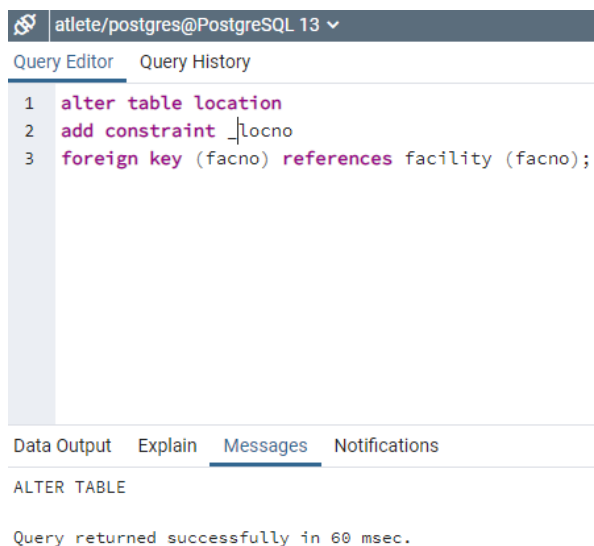
```
CREATE TABLE location (locno
varchar(10) NOT NULL, facno
varchar(10) NOT NULL, locname
varchar(30) NOT NULL,
CONSTRAINT locno_ PRIMARY KEY (locno)
);
```

1. Hanya ada satu tabel yang saling berhubungan. Table yang berhubungan adalah tabel facility dengan tabel location dimana table facility merupakan parent dari tabel location, karna tabel location mengambil data dari tabel facility.

2. alter table location

add constraint _locno

foreign key (facno) references facility (facn

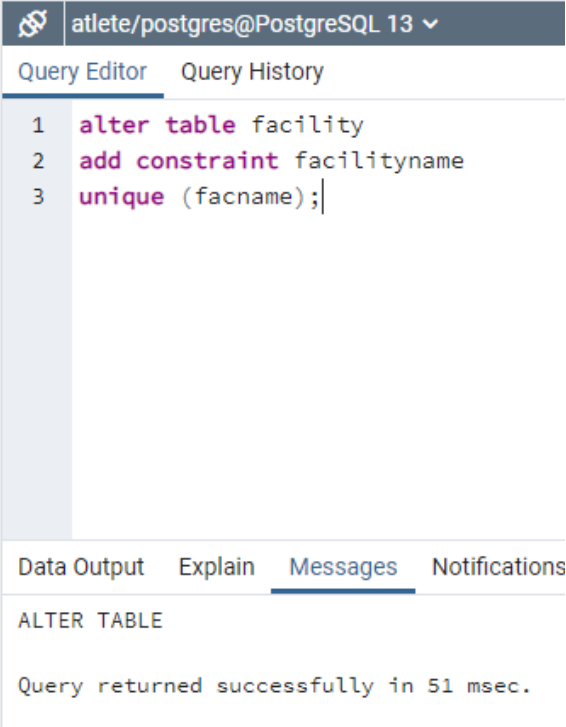


The screenshot shows a PostgreSQL query editor window titled 'atlete/postgres@PostgreSQL 13'. It has two tabs: 'Query Editor' and 'Query History'. The 'Query Editor' tab is active and contains three lines of SQL code:
1 alter table location
2 add constraint _locno
3 foreign key (facno) references facility (facno);
Below the query editor, there are four tabs: 'Data Output', 'Explain', 'Messages', and 'Notifications'. The 'Messages' tab is selected and shows the output:
ALTER TABLE
Query returned successfully in 60 msec.

```
atlete/postgres@PostgreSQL 13
Query Editor  Query History
1 alter table location
2 add constraint _locno
3 foreign key (facno) references facility (facno);
Data Output  Explain  Messages  Notifications
ALTER TABLE
Query returned successfully in 60 msec.
```

3. Menurut saya, null tidak boleh digunakan dalam foreign key. Saya ingin menjelaskan mengapa foreign key mungkin perlu nol atau mungkin perlu unik atau tidak unik. Pertama, ingat foreign key hanya mengharuskan nilai di bidang itu harus ada terlebih dahulu di tabel yang berbeda (tabel induk). Itu semua adalah definisi FK. Null menurut definisi bukanlah nilai. Null artinya kita belum tahu berapa nilainya.

4. alter table facility
Add constraint facilityname
Unique (facname);



The screenshot shows a PostgreSQL query editor window titled 'atlete/postgres@PostgreSQL 13'. It has two tabs: 'Query Editor' and 'Query History'. The 'Query Editor' tab is active and contains the following SQL code:

```
1 alter table facility
2 add constraint facilityname
3 unique (facname);
```

Below the query editor, there are four tabs: 'Data Output', 'Explain', 'Messages', and 'Notifications'. The 'Messages' tab is selected and displays the following output:

```
ALTER TABLE

Query returned successfully in 51 msec.
```

Pengisian Data Customer

atlete/postgres@PostgreSQL 13

Query Editor Query History

```
1 INSERT INTO customer
2   (custno, custname, address, Internal, contact, phone, city, state, zip)
3   VALUES ('C100','Football','Box352200','Y','Mary Manager','6857100','Boulder','CO','
4
5 INSERT INTO customer
6   (custno, custname, address, Internal, contact, phone, city, state, zip)
7   VALUES ('C101','Men s Basketball','Box352400','Y','Sally Supervisor','5413700','Bou
8
9 INSERT INTO customer
10  (custno, custname, address, Internal, contact, phone, city, state, zip)
11  VALUES ('C103','Basebal','Box352020','Y','Bill Baseball','5431234','Boulder','CO','
12
```

Data Output Explain Messages Notifications

INSERT 0 1

Query returned successfully in 51 msec.

pgAdmin 4

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atlete/postgres@PostgreSQL 13

Query Editor Query History

Scratch Pad

```
1 select * from customer;
```

Data Output Explain Messages Notifications

	custno [PK] character varying (10)	custname character varying (30)	address character varying (30)	internal character varying (1)	contact character varying (30)	phone character varying (10)	city character varying (15)	state character varying (2)
1	C100	Football	Box352200	Y	Mary Manager	6857100	Boulder	CO
2	C101	Men s Basketball	Box352400	Y	Sally Supervisor	5413700	Boulder	CO
3	C103	Basebal	Box352020	Y	Bill Baseball	5431234	Boulder	CO
4	C104	Women s Softball	Box351200	Y	Sue Softball	5434321	Boulder	CO
5	C105	High School Football	123 AnyStreet	N	Coach Bob	4441234	Louisville	CO

Pengisian Data Facility

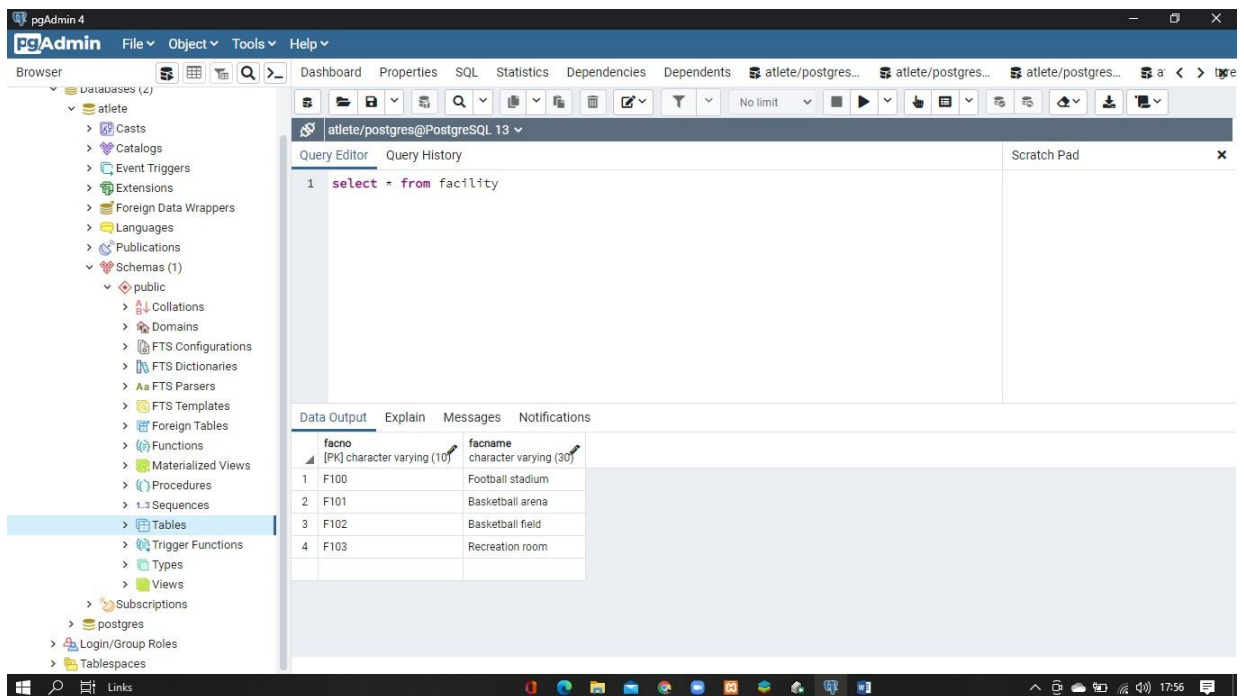
```
atlete/postgres@PostgreSQL 13
Query Editor  Query History

1  INSERT INTO facility
2      (facno, facname)
3      VALUES ('F100','Football stadium');
4
5
6  INSERT INTO facility
7      (facno, facname)
8      VALUES ('F101','Basketball arena');
9
10 INSERT INTO facility
11     (facno, facname)
12     VALUES ('F102','Basketball field');

Data Output  Explain  Messages  Notifications

INSERT 0 1

Query returned successfully in 43 msec.
```



Pengisian Data Location

atlete/postgres@PostgreSQL 13 ▾

Query Editor Query History

```
22      (locno, facno, locname)
23      VALUES ('L104', 'F100', 'Ticket Booth');
24
25
26  INSERT INTO location
27      (locno, facno, locname)
28      VALUES ('L105', 'F101', 'Gate');
29
30
31  INSERT INTO location
32      (locno, facno, locname)
33      VALUES ('L106', 'F100', 'Pedestrian gate');
```

Data Output Explain Messages Notifications

INSERT 0 1

Query returned successfully in 48 msec.

pgAdmin 4

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atlete

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 - Materialized Views
 - Procedures
 - Sequences
 - Tables**
 - Trigger Functions
 - Types
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Query Editor Query History Scratch Pad

```
1 select * from location
```

Data Output Explain Messages Notifications

	locno [PK] character varying (10)	facno character varying (10)	locname character varying (30)
1	L100	F100	Locker room
2	L101	F100	Plaza
3	L102	F100	Vehicle gate
4	L103	F101	Locker room
5	L104	F100	Ticket Booth
6	L105	F101	Gate
7	L106	F100	Pedestrian gate