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TUGAS DATA WAREHOUSE DAN BUSINESS INTELIGENCE

1. 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 customerPk PRIMARY KEY (custno)
);
2. CREATE TABLE facility (
facno varchar(10) NOT NULL,
facname varchar(30) NOT NULL,
CONSTRAINT facilityPk PRIMARY KEY (facno)
);
3. CREATE TABLE location (
locno varchar(10),
facno varchar(10),
locname varchar(30) NOT NULL,
CONSTRAINT locationPk PRIMARY KEY (locno)
);

DWBI/postgres@PostgreSQL 13

Query Editor Query History

```

1 CREATE TABLE customer (
2   custno varchar(10) NOT NULL,
3   custname varchar(30) NOT NULL,
4   address varchar(30) NOT NULL,
5   Internal varchar(1) NOT NULL,
6   contact varchar(30) NOT NULL,
7   phone varchar(10) NOT NULL,
8   city varchar(15) NOT NULL,
9   state varchar(2) NOT NULL,
10  zip varchar(5) NOT NULL,
11  CONSTRAINT customerPk PRIMARY KEY (custno)
12 );
13
14 CREATE TABLE facility (
15   facno varchar(10) NOT NULL,
16   facname varchar(30) NOT NULL,
17   CONSTRAINT facilityPk PRIMARY KEY (facno)
18 );
19
20 CREATE TABLE location (
21   locno varchar(10),
22   facno varchar(10),
23   locname varchar(30) NOT NULL,

```

Data Output Explain Messages Notifications

CREATE TABLE

Query returned successfully in 172 msec.

Dashboard Properties SQL Statistics Dependents public.enrollm... DWBI/postgres... public.location...

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

- Hanya ada 1 hubungan Foreign key pada kasus ini yaitu Hubungan kolom facno pada tabel Facility dengan kolom facno pada tabel Location. Tabel Facility adalah tabel parent pada hubungan ini karena tabel ini merupakan tabel referensi sementara tabel location adalah tabel child.

- ALTER TABLE location
add CONSTRAINT locationFK
FOREIGN KEY (facno) REFERENCES facility(facno);

DWBI/postgres@PostgreSQL 13

Query Editor Query History

```

1 ALTER TABLE location
2 add CONSTRAINT locationFK
3 FOREIGN KEY (facno) REFERENCES facility(facno);

```

Data Output Explain Messages Notifications

ALTER TABLE

Query returned successfully in 189 msec.

```
DWBI/postgres@PostgreSQL 13
Query Editor Query History
1 INSERT INTO location
2   (locno, facno, locname)VALUES('L107', 'F109', 'Locker Room');
3
4
5

Data Output Explain Messages Notifications
ERROR: insert or update on table "location" violates foreign key constraint "locationfk"
DETAIL: Key (facno)=(F109) is not present in table "facility".
SQL state: 23503
```

Akan terjadi eror jika inputan kolom facno tidak sesuai dengan kolom facno table facility.

- Sejauh yang Saya ketahui, NULL tidak boleh digunakan dalam Foreign Key. Tetapi mungkin dalam kasus ini bisa terjadi karena Foreign key mengharuskan nilainya sudah ada terlebih dahulu dari tabel yang berbeda karena disini NULL berarti kita belum mengetahui berapa nilai tersebut bukan tidak ada nilai.

- ALTER TABLE facility
add CONSTRAINT UniqueFacilityName
UNIQUE (facname);

```
DWBI/postgres@PostgreSQL 13
Query Editor Query History
1 ALTER TABLE facility
2 add CONSTRAINT UniqueFacilityName
3 UNIQUE (facname);

Data Output Explain Messages Notifications
ALTER TABLE
Query returned successfully in 114 msec.
```

INPUT DATA

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File Object Tools Help

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Properties SQL Statistics Dependencies DWBI/postgres@PostgreSQL 13 * public.location... public.custom...

DWBI/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','Box 352200','Y', 'Mary Manager', '6857100', 'Boulder', 'CO', '80309');
4 INSERT INTO Customer
5 (custno, custname, address, internal, contact, phone, city, state, zip)
6 VALUES ( 'C103','Baseball','Box 352020','Y', 'Bill Baseball', '5431234', 'Boulder', 'CO', '80309');
7 INSERT INTO Customer
8 (custno, custname, address, internal, contact, phone, city, state, zip)
9 VALUES ( 'C101','Men s Basketball','Box 352400','Y', 'Sally Supervisor', '5431700', 'Boulder', 'CO', '80309');
10 INSERT INTO Customer
11 (custno, custname, address, internal, contact, phone, city, state, zip)
12 VALUES ( 'C104','Women s Softball','Box 351200','Y', 'Sue Softball', '5434321', 'Boulder', 'CO', '80309');
13 INSERT INTO Customer
14 (custno, custname, address, internal, contact, phone, city, state, zip)
15 VALUES ( 'C105','High School Football','123 AnyStreet','N', 'Coach Bob', '4441234', 'Louisville', 'CO', '8002'
```

Data Output Explain Messages Notifications

INSERT 0 1

Query returned successfully in 87 msec.

✓ Query returned successfully in 87 msec.

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Properties SQL Statistics Dependencies DWBI/postgres... public.location... public.custom... public.customer/DWBI/postg

DWBI/postgres@PostgreSQL 13

Query Editor Query History

```
1 SELECT * FROM public.customer
2 ORDER BY custno ASC
```

Data Output Explain Messages Notifications

custno	custname	address	internal	contact	phone	city
[PK] character varying (10)	character varying (30)	character varying (30)	character varying (1)	character varying (30)	character varying (10)	character varying (15)
1 C100	Football	Box 352200	Y	Mary Manager	6857100	Boulder
2 C1000	Football	Box 352200	Y	Mary Manager	6857100	Boulder
3 C101	Men s Basketball	Box 352400	Y	Sally Supervisor	5431700	Boulder
4 C103	Baseball	Box 352020	Y	Bill Baseball	5431234	Boulder
5 C104	Women s Softball	Box 351200	Y	Sue Softball	5434321	Boulder
6 C105	High School Football	123 AnyStreet	N	Coach Bob	4441234	Louisville

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File Object Tools Help

Dashboard Properties SQL Statistics Dependents DWBI/postgres@PostgreSQL 13 *

Query Editor Query History

```
1 INSERT INTO facility
2   (facno, facname)VALUES('F100', 'Football Stadium');
3 INSERT INTO facility
4   (facno, facname)VALUES('F101', 'Basketball Arena');
5 INSERT INTO facility
6   (facno, facname)VALUES('F102', 'Baseball Field');
7 INSERT INTO facility
8   (facno, facname)VALUES('F103', 'Recreation Room');
```

Data Output Explain Messages Notifications

INSERT 0 1

Query returned successfully in 94 msec.

✓ Query returned successfully in 94 msec.

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File Object Tools Help

Dashboard Properties SQL Statistics Dependents DWBI/postgres... public.facility/DWBI/postgres@PostgreSQL 13

Query Editor Query History

```
1 SELECT * FROM public.facility
2 ORDER BY facno ASC
```

Data Output Explain Messages Notifications

facno	facname
1 F100	Football Stadium
2 F101	Basketball Arena
3 F102	Baseball Field
4 F103	Recreation Room

✓ Successfully run. Total query runtime: 617 msec. 4 rows affected.

Browser

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File Object Tools Help

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Dashboard Properties SQL Statistics Dependents DWBI/postgres@PostgreSQL 13 * public.facility/...

Query Editor Query History

```
1 INSERT INTO location
2   (locno, facno, locname)VALUES('L100', 'F100', 'Locker Room');
3 INSERT INTO location
4   (locno, facno, locname)VALUES('L101', 'F100', 'Plaza');
5 INSERT INTO location
6   (locno, facno, locname)VALUES('L102', 'F100', 'Vehicle Gate');
7 INSERT INTO location
8   (locno, facno, locname)VALUES('L103', 'F101', 'Locker Room');
9 INSERT INTO location
10  (locno, facno, locname)VALUES('L104', 'F100', 'Ticker Booth');
11 INSERT INTO location
12  (locno, facno, locname)VALUES('L105', 'F101', 'Gate');
13 INSERT INTO location
14  (locno, facno, locname)VALUES('L106', 'F100', 'Pedestrian Gate');
15
16
```

Data Output Explain Messages Notifications

INSERT 0 1

Query returned successfully in 99 msec.

✓ Query returned successfully in 99 msec.

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File Object Tools Help

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Dashboard Properties SQL Statistics Dependents DWBI/postgres... public.facility/... public.location/DWBI/postgres@f < > X 1

Query Editor Query History

```
1 SELECT * FROM public.location
2 ORDER BY locno ASC
```

Data Output Explain Messages Notifications

locno	facno	locname
L100	F100	Locker Room
L101	F100	Plaza
L102	F100	Vehicle Gate
L103	F101	Locker Room
L104	F100	Ticker Booth
L105	F101	Gate
L106	F100	Pedestrian Gate

✓ Successfully run. Total query runtime: 274 msec. 7 rows affected.