

Experiment No. 5

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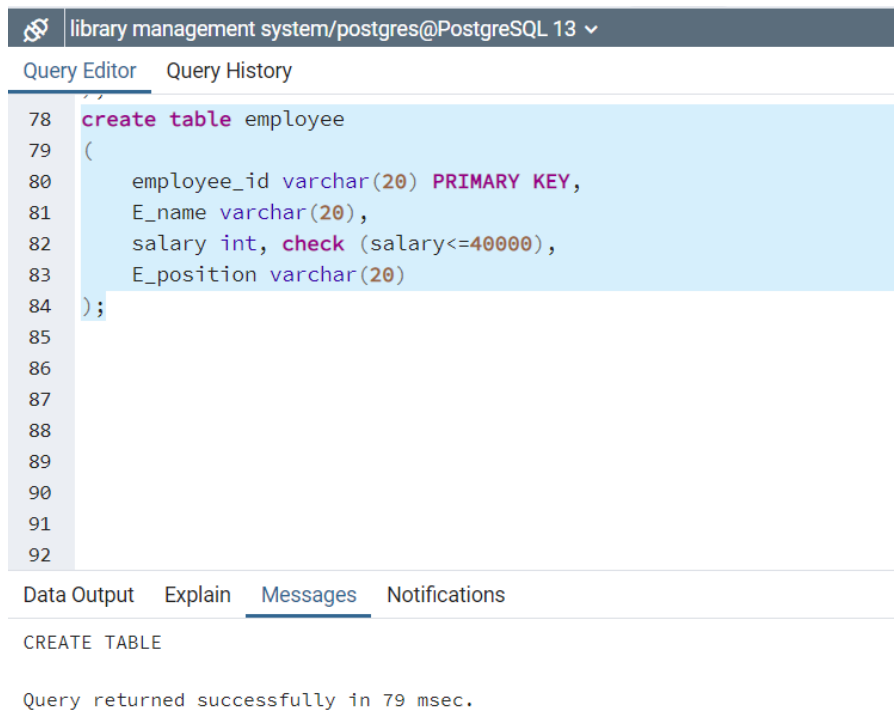
Roll No: 19102A0023

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Constraints:

1) Check constraint:

Adding check constraint to salary column:



```
library management system/postgres@PostgreSQL 13 v
Query Editor  Query History
78 create table employee
79 (
80     employee_id varchar(20) PRIMARY KEY,
81     E_name varchar(20),
82     salary int, check (salary<=40000),
83     E_position varchar(20)
84 );
85
86
87
88
89
90
91
92
Data Output  Explain  Messages  Notifications
CREATE TABLE
Query returned successfully in 79 msec.
```

2) Not null constraint:

Adding not null constraint to manager_id:

```
library management system/postgres@PostgreSQL 13
Query Editor Query History
1 create table branch
2 (
3     branch_no varchar(20) PRIMARY KEY,
4     manager_id varchar(20) not null,
5     zipcode int,
6     street varchar(20),
7     contact_no varchar(15),
8     city char(20),
9     state char(20)
10 );
11
12
13
14
15
Data Output Explain Messages Notifications
CREATE TABLE
Query returned successfully in 67 msec.
```

- 3) Unique constraint:
Adding unique key constraint to title:

```
library management system/postgres@PostgreSQL 13
Query Editor Query History
19 create table books
20 (
21     ISBN varchar(50) primary key ,
22     title varchar(50) unique,
23     category varchar(50),
24     rental_price int,
25     author varchar(50),
26     publisher varchar(50),
27     status varchar(50)
28 );
29
30
31
32
33
Data Output Explain Messages Notifications
CREATE TABLE
Query returned successfully in 80 msec.
```

- 4) Primary key constraint:
Adding primary key constraint to all table:
1) Branch:

library management system/postgres@PostgreSQL 13 ▾

Query Editor Query History

```
1 create table branch
2 (
3     branch_no varchar(20) PRIMARY KEY,
4     manager_id varchar(20) not null,
5     zipcode int,
6     street varchar(20),
7     contact_no varchar(15),
8     city char(20),
9     state char(20)
10 );
11
12
13
14
15
```

Data Output Explain Messages Notifications

CREATE TABLE

Query returned successfully in 67 msec.

2) Books:

library management system/postgres@PostgreSQL 13 ▾

Query Editor Query History

```
19 create table books
20 (
21     ISBN varchar(50) primary key ,
22     title varchar(50) unique,
23     category varchar(50),
24     rental_price int,
25     author varchar(50),
26     publisher varchar(50),
27     status varchar(50)
28 );
29
30
31
32
33
```

Data Output Explain Messages Notifications

CREATE TABLE

Query returned successfully in 80 msec.

3) Employee:

library management system/postgres@PostgreSQL 13 ▾

Query Editor Query History

```
78 create table employee
79 (
80     employee_id varchar(20) PRIMARY KEY,
81     E_name varchar(20),
82     salary int, check (salary<=40000),
83     E_position varchar(20)
84 );
85
86
87
88
89
90
91
92
```

Data Output Explain Messages Notifications

CREATE TABLE

Query returned successfully in 79 msec.

4) Issue_status:

library management system/postgres@PostgreSQL 13 ▾

Query Editor Query History

```
37
38 create table issue_status
39 (
40     issue_id varchar(20) primary key,
41     issued_member_id varchar(20),
42     ISBN_book1 varchar(20),
43     issue_date date,
44     issue_book_name varchar(50)
45 );
46
47
48
49
50
51
```

Data Output Explain Messages Notifications

CREATE TABLE

Query returned successfully in 115 msec.

5) Member:

library management system/postgres@PostgreSQL 13 ▾

Query Editor Query History

27
28 **create table member**
29 (
30 member_id varchar(20) PRIMARY KEY,
31 m_name varchar(20),
32 m_address varchar(20),
33 registration_date date,
34 book_issued_isbn varchar(50)
35);
36
37
38
39
40
41

Data Output Explain Messages Notifications

CREATE TABLE

Query returned successfully in 85 msec.

6) Return_status:

library management system/postgres@PostgreSQL 13 ▾

Query Editor Query History

53 **create table return_status**
54 (
55 Return_id varchar(30) primary key,
56 return_date date,
57 return_book_name varchar(30),
58 ISBN_book2 varchar (20),
59 return_member_id varchar(20)
60);
61
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66
67

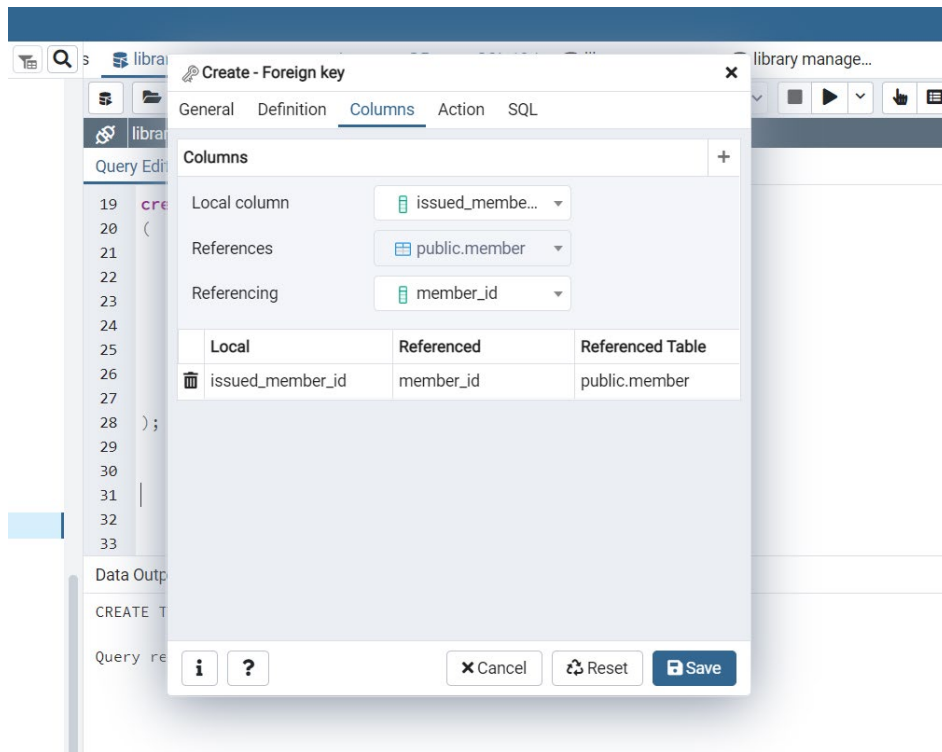
Data Output Explain Messages Notifications

CREATE TABLE

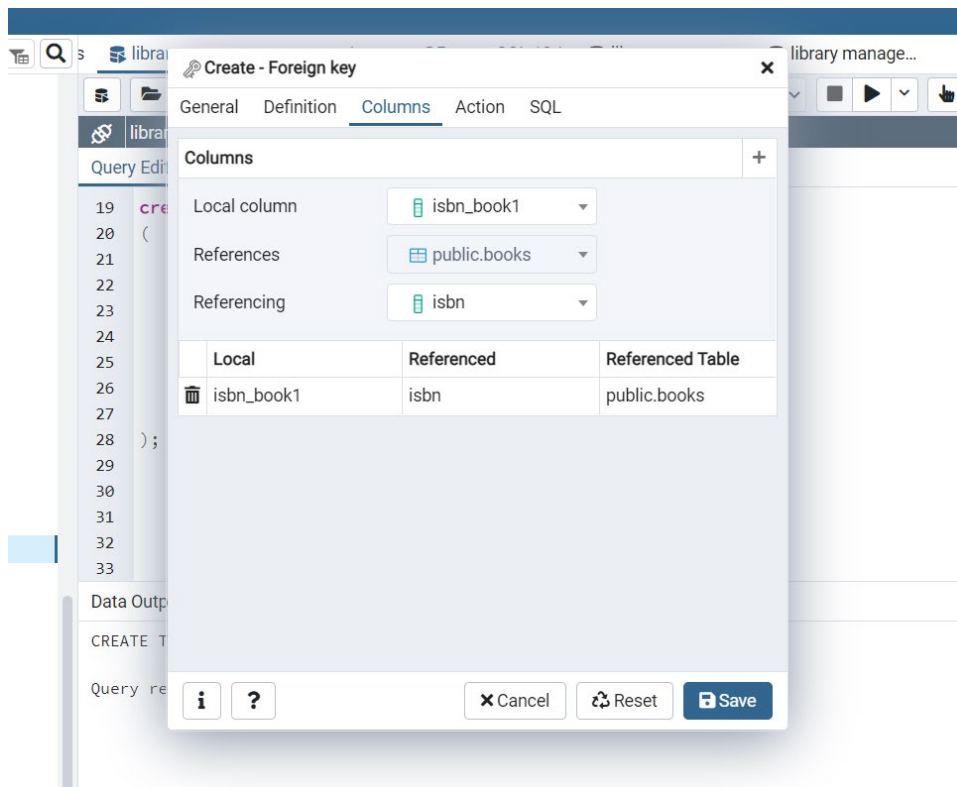
Query returned successfully in 94 msec.

5) Foreign key constraint:

- 1) Adding foreign key constraint to issued_member_id of issue_status with member_id of member table:

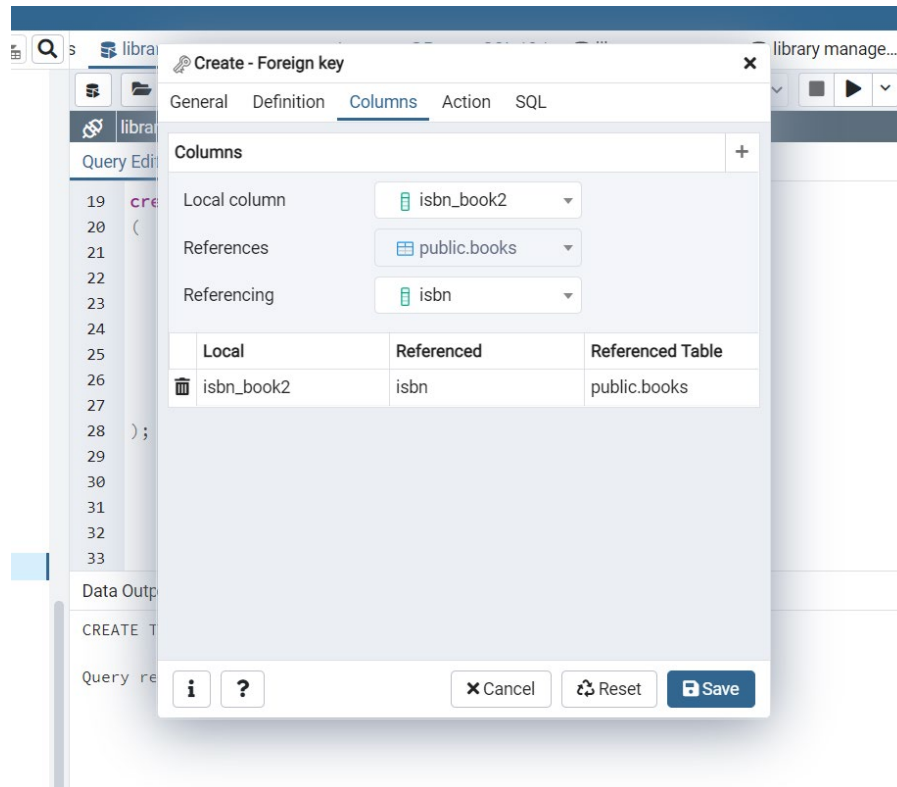


2) Adding foreign key constraint to isbn_book1 of issue_status with ISBN of books table:



3) Adding foreign key constraint to isbn_book2 of return_status with

ISBN of books table:



- 4) Adding foreign key constraint to Return_member_id of return_status with member_id of member:

