```
Server [localhost]:
Database [postgres]:
Port [5432]:
Username [postgres]:
Password for user postgres:
psql (14.0)
WARNING: Console code page (437) differs from Windows code page (1252)
    8-bit characters might not work correctly. See psql reference
    page "Notes for Windows users" for details.
Type "help" for help.
postgres=# CREATE DATABASE crm;
CREATE DATABASE
postgres=# \c crm
You are now connected to database "crm" as user "postgres".
crm=# CREATE TABLE customer_info(id int NOT NULL PRIMARY KEY, first_name varchar(30), last_name varchar(30),
phone_number varchar(12), national_code varchar(10), economy_code varchar(20), address varchar(100));
CREATE TABLE
crm=# CREATE TABLE employee_info(id int NOT NULL PRIMARY KEY, first_name varchar(30), last_name varchar(30),
national code varchar(10), address varchar(100), last educational certificate varchar(50), image varchar(100));
CREATE TABLE
crm=# CREATE TABLE role(id int NOT NULL PRIMARY KEY, name varchar(30), description varchar(100));
CREATE TABLE
crm=# CREATE TABLE permission(id int NOT NULL PRIMARY KEY, name varchar(30), description varchar(100));
CREATE TABLE
crm=# CREATE TABLE user(id int NOT NULL PRIMARY KEY, user name varchar(30), password varchar(50));
ERROR: syntax error at or near "user"
LINE 1: CREATE TABLE user(id int NOT NULL PRIMARY KEY, user name var...
           ۸
crm=# CREATE TABLE users(id int NOT NULL PRIMARY KEY, user name varchar(30), password varchar(50));
CREATE TABLE
crm=# CREATE TABLE ticket(id int NOT NULL PRIMARY KEY, title varchar(50), description varchar(300), date_time
varchar(50), type int);
CREATE TABLE
crm=# CREATE TABLE response(id int NOT NULL PRIMARY KEY, title varchar(50), description varchar(300), date_time
varchar(50));
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CREATE TABLE
crm=# ALTER TABLE response DROP COLUMN title;
ALTER TABLE
crm=# \d response
         Table "public.response"
 Column | Type | Collation | Nullable | Default
integer | not null |
id
description | character varying(300) | |
date_time | character varying(50) | |
Indexes:
 "response_pkey" PRIMARY KEY, btree (id)
crm=# \d
     List of relations
Schema | Name | Type | Owner
-----+-----
public | customer_info | table | postgres
public | employee_info | table | postgres
public | permission | table | postgres
public | response | table | postgres
public | role | table | postgres
public | users | table | postgres
(7 rows)
crm=# \d role
          Table "public.role"
 Column | Type | Collation | Nullable | Default
  | integer | | not null |
id
name | character varying(30) | |
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description | character varying(100) |
                                       Indexes:
  "role_pkey" PRIMARY KEY, btree (id)
crm=# ALTER TABLE users ADD COLUMN role_id INT NOT NULL REFERENCES role(ID);
ALTER TABLE
crm=# ALTER TABLE users ADD COLUMN customer_id INT NOT NULL REFERENCES customer_info(ID);
ALTER TABLE
crm=# ALTER TABLE users ADD COLUMN employee_id INT NOT NULL REFERENCES employee_info(ID);
ALTER TABLE
crm=# ALTER TABLE ticket ADD COLUMN user id INT NOT NULL REFERENCES users(ID);
ALTER TABLE
crm=# ALTER TABLE ticket ADD COLUMN status INT NOT NULL;
ALTER TABLE
crm=# ALTER TABLE response ADD COLUMN ticket_id INT NOT NULL REFERENCES ticket(ID);
ALTER TABLE
crm=# ALTER TABLE response ADD COLUMN costumer_id INT NOT NULL REFERENCES customer_info(ID));
crm-# ALTER TABLE response ADD COLUMN costumer_id INT NOT NULL REFERENCES customer_info(ID));
ERROR: syntax error at or near "ALTER"
LINE 2: ALTER TABLE response ADD COLUMN costumer_id INT NOT NULL REF...
crm=# ALTER TABLE response ADD COLUMN costumer_id INT NOT NULL REFERENCES customer_info(ID);
ALTER TABLE
crm=# ALTER TABLE response ADD COLUMN user_id INT NOT NULL REFERENCES users(ID);
ALTER TABLE
crm=# CREATE TABLE role_permission(id INT NOT NULL PRIMARY KEY);
CREATE TABLE
crm=# ALTER TABLE role_permission ADD COLUMN role_id INT NOT NULL REFERENCES role(ID);
ALTER TABLE
crm=# ALTER TABLE role permission ADD COLUMN permission id INT NOT NULL REFERENCES permission(ID);
ALTER TABLE
crm=# \d
      List of relations
```

```
Schema | Name | Type | Owner
public | customer_info | table | postgres
public | employee_info | table | postgres
public | permission | table | postgres
public | response | table | postgres
public | role | table | postgres
public | role_permission | table | postgres
public | ticket
               | table | postgres
public | users | table | postgres
(8 rows)
crm=# \d customer_info
          Table "public.customer_info"
 Column | Type | Collation | Nullable | Default
       | integer | not null |
id
first_name | character varying(30) |
last_name | character varying(30) |
phone_number | character varying(12) |
national_code | character varying(10) | |
economy_code | character varying(20) | |
address | character varying(100) | |
Indexes:
  "customer_info_pkey" PRIMARY KEY, btree (id)
Referenced by:
 TABLE "response" CONSTRAINT "response_costumer_id_fkey" FOREIGN KEY (costumer_id) REFERENCES
customer_info(id)
 TABLE "users" CONSTRAINT "users customer id fkey" FOREIGN KEY (customer id) REFERENCES customer info(id)
crm=# \d employee_info
              Table "public.employee_info"
```

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Column
               | Type | Collation | Nullable | Default
            | integer |
                               not null
id
first_name
               character varying(30)
              | character varying(30) |
                                       last_name
               | character varying(10) | |
national_code
address
              character varying(100) | |
last_educational_certificate | character varying(50) |
              character varying(100) | |
image
Indexes:
 "employee_info_pkey" PRIMARY KEY, btree (id)
Referenced by:
 TABLE "users" CONSTRAINT "users_employee_id_fkey" FOREIGN KEY (employee_id) REFERENCES
employee_info(id)
crm=# \d response
          Table "public.response"
 Column | Type | Collation | Nullable | Default
        integer | not null |
id
description | character varying(300) |
date_time | character varying(50) |
ticket_id | integer | not null |
costumer_id | integer | not null |
user_id | integer | not null |
Indexes:
 "response_pkey" PRIMARY KEY, btree (id)
Foreign-key constraints:
 "response costumer id fkey" FOREIGN KEY (costumer id) REFERENCES customer info(id)
 "response_ticket_id_fkey" FOREIGN KEY (ticket_id) REFERENCES ticket(id)
 "response_user_id_fkey" FOREIGN KEY (user_id) REFERENCES users(id)
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crm=# \d ticket
          Table "public.ticket"
 Column | Type | Collation | Nullable | Default
------
     integer | not null |
id
title | character varying(50) | |
description | character varying(300) |
date_time | character varying(50) | |
type | integer | | |
user_id | integer | | not null |
status | integer | | not null |
Indexes:
 "ticket_pkey" PRIMARY KEY, btree (id)
Foreign-key constraints:
 "ticket_user_id_fkey" FOREIGN KEY (user_id) REFERENCES users(id)
Referenced by:
 TABLE "response" CONSTRAINT "response_ticket_id_fkey" FOREIGN KEY (ticket_id) REFERENCES ticket(id)
crm=# \d users
          Table "public.users"
 Column | Type | Collation | Nullable | Default
  -----+----+-----
     | integer | not null |
id
user_name | character varying(30) | |
password | character varying(50) | |
role_id | integer | | not null |
customer_id | integer | not null |
employee_id | integer | not null |
Indexes:
 "users_pkey" PRIMARY KEY, btree (id)
Foreign-key constraints:
 "users_customer_id_fkey" FOREIGN KEY (customer_id) REFERENCES customer_info(id)
 "users_employee_id_fkey" FOREIGN KEY (employee_id) REFERENCES employee_info(id)
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"users_role_id_fkey" FOREIGN KEY (role_id) REFERENCES role(id)
Referenced by:
 TABLE "response" CONSTRAINT "response_user_id_fkey" FOREIGN KEY (user_id) REFERENCES users(id)
 TABLE "ticket" CONSTRAINT "ticket_user_id_fkey" FOREIGN KEY (user_id) REFERENCES users(id)
crm=# \d role
           Table "public.role"
 Column |
             Type | Collation | Nullable | Default
| integer | | not null |
id
name | character varying(30) | |
description | character varying(100) | |
Indexes:
 "role_pkey" PRIMARY KEY, btree (id)
Referenced by:
 TABLE "role_permission" CONSTRAINT "role_permission_role_id_fkey" FOREIGN KEY (role_id) REFERENCES role(id)
 TABLE "users" CONSTRAINT "users_role_id_fkey" FOREIGN KEY (role_id) REFERENCES role(id)
crm=# \d permission
          Table "public.permission"
 Column | Type | Collation | Nullable | Default
 -----+----+----+-----+-----+-----+-----
   | integer | | not null |
id
name | character varying(30) | |
description | character varying(100) | |
Indexes:
 "permission_pkey" PRIMARY KEY, btree (id)
Referenced by:
 TABLE "role_permission" CONSTRAINT "role_permission_jermission_id_fkey" FOREIGN KEY (permission_id)
REFERENCES permission(id)
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```
crm=# \d role_permission
      Table "public.role_permission"
 Column | Type | Collation | Nullable | Default
-----+----+-----
       | integer | | not null |
id
role_id | integer | | not null |
permission_id | integer | | not null |
Indexes:
 "role_permission_pkey" PRIMARY KEY, btree (id)
Foreign-key constraints:
 "role_permission_permission_id_fkey" FOREIGN KEY (permission_id) REFERENCES permission(id)
 "role_permission_role_id_fkey" FOREIGN KEY (role_id) REFERENCES role(id)
crm=# \d
      List of relations
Schema | Name | Type | Owner
-----+-----
public | customer_info | table | postgres
public | employee_info | table | postgres
public | permission | table | postgres
public | response | table | postgres
public | role | table | postgres
public | role_permission | table | postgres
public | users | table | postgres
(8 rows)
crm=#
```