

Below are all my tables. Both showing the schema of the tables, and the tables populated with data.

The picture below just showcases all the relations / tables within the database (specifically under the 'thismusicproduction' schema). It is the `\dt <schema_name>.*` command used in PostgreSQL.

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
INSERT 0 5
Creating Telephone table.
CREATE TABLE
Inserting values into Telephone table.
INSERT 0 5
Now, creating and setting up the relational tables between entities. Some may be many-to-many while others 1-to-many.
Creating Perform table: m:m
CREATE TABLE
Inserting values into Perform table. Values are *dependent* on values from other previously defined tables. Specifically Musicians and Songs.
INSERT 0 5
Creating Plays table: m:m
CREATE TABLE
Inserting values into Plays table. Values are *dependent* on values from other previously defined tables. Specifically Musicians and Instrument.
INSERT 0 5
Creating the "Home" table for the "Place" and "Telephone table relationship".
CREATE TABLE
Inserting values into Home table. Values are *dependent* on values from other previously defined tables. Specifically "Place" and "Telephone".
INSERT 0 5
Creating the "Lives" relationship between the two tables "Musicians" and the aggregation of "Home" entity relationship set.
CREATE TABLE
Inserting values into "Lives" table. Values are *dependent* on values from other previously defined tables. Specifically "Musicians" and the aggregation of "Home" entity relationship set.
INSERT 0 5
List of relations
Schema | Name | Type | Owner
-----|-----|-----|-----
thismusicproduction | album | table | tyru5
thismusicproduction | home | table | tyru5
thismusicproduction | instrument | table | tyru5
thismusicproduction | lives | table | tyru5
thismusicproduction | musicians | table | tyru5
thismusicproduction | perform | table | tyru5
thismusicproduction | place | table | tyru5
thismusicproduction | plays | table | tyru5
thismusicproduction | songs | table | tyru5
thismusicproduction | telephone | table | tyru5
(10 rows)
tnalnst=#
```

~~~~~Now starts the listing of the relations / tables:~~~~~

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# \d thismusicproduction.album;
Table "thismusicproduction.album"
Column | Type | Modifiers
-----|-----|-----
albumidentifier | integer | not null
copyrightdate | date | not null
speed | interval minute | 
title | character varying(25) | 
musician_ssn | character varying(11) | not null
Indexes:
    "album_pkey" PRIMARY KEY, btree (albumidentifier)
Foreign-key constraints:
    "album_musician_ssn_fkey" FOREIGN KEY (musician_ssn) REFERENCES thismusicproduction.musicians(ssn) ON DELETE CASCADE
Referenced by:
    TABLE "thismusicproduction.songs" CONSTRAINT "songs_album_albumidentifier_fkey" FOREIGN KEY (album_albumidentifier) REFERENCES thismusicproduction.album(albumidentifier) ON DELETE CASCADE
tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# select * from thismusicproduction.album;
 albumidentifier | copyrightdate | speed | title | musician_ssn
-----
1 | 2010-07-29 | 10:30:00 | For Lack of a Better Name | 159-52-1563
2 | 2008-04-29 | 05:00:00 | While(1<2) | 159-52-1563
3 | 2009-08-29 | 06:50:00 | Random Ablum Title | 159-52-1563
4 | 2016-06-29 | 02:00:00 | >Album Title Goes Here< | 159-52-1563
5 | 2007-05-29 | 08:30:00 | W/2016 Ablum | 159-52-1563
(5 rows)

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# \d thismusicproduction.home;
Table "thismusicproduction.home"
  Column      | Type          | Modifiers
-----
place_address | character varying(45) | not null
telephone_phone_no | text          | not null
Indexes:
    "home_pkey" PRIMARY KEY, btree (place_address)
    "home_telephone_phone_no_key" UNIQUE CONSTRAINT, btree (telephone_phone_no)
Foreign-key constraints:
    "home_place_address_fkey" FOREIGN KEY (place_address) REFERENCES thismusicproduction.place(address) ON UPDATE CASCADE
    "home_telephone_phone_no_fkey" FOREIGN KEY (telephone_phone_no) REFERENCES thismusicproduction.telephone(phone_no) ON UPDATE CASCADE
Referenced by:
    TABLE "thismusicproduction.lives" CONSTRAINT "lives_place_address_fkey" FOREIGN KEY (place_address) REFERENCES thismusicproduction.home(place_address) ON UPDATE CASCADE
tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# select * from thismusicproduction.home;
      place_address      | telephone_phone_no
-----+-----
 3140. Ontario drive    | 303-653-5478
 5148. 7 Panagioti Gyanapolou | 654-251-4789
 2250 W. South Drive    | 125-458-7963
 1337 Leet Drive        | 111-454-7888
 7331 A. This address is cool | 111-222-3334
(5 rows)

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# \d thismusicproduction.instrument;
Table "thismusicproduction.instrument"
Column | Type          | Modifiers
-----+-----+-----
instrid | integer       | not null
dname   | character varying(15) |
key     | character varying(15) |
Indexes:
    "instrument_pkey" PRIMARY KEY, btree (instrid)
Referenced by:
    TABLE "thismusicproduction.plays" CONSTRAINT "plays_instrument_instrid_fkey" FOREIGN KEY (instrument_instrid) REFERENCES thismusicproduction.instrument(instrid) ON UPDATE CASCADE

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# select * from thismusicproduction.instrument;
 instrumentid | dname | key
-----
 1 | Violin | C#
 2 | Piano | A Minor
 3 | Guitar | G
 4 | Electronic DAW | All keys
 5 | Harmonica | A Major
(5 rows)

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# \d thismusicproduction.lives;
Table "thismusicproduction.lives"
  Column      | Type          | Modifiers
-----
 musician_ssn | character varying(11) | not null
 place_address | character varying(45) | not null
Indexes:
    "lives_pkey" PRIMARY KEY, btree (musician_ssn, place_address)
Foreign-key constraints:
    "lives_musician_ssn_fkey" FOREIGN KEY (musician_ssn) REFERENCES thismusicproduction.musicians(ssn) ON UPDATE CASCADE
    "lives_place_address_fkey" FOREIGN KEY (place_address) REFERENCES thismusicproduction.home(place_address) ON UPDATE CASCADE

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# select * from thismusicproduction.lives;
 musician_ssn | place_address
-----
147-45-4789 | 2250 W. South Drive
256-69-7858 | 1337 Leet Drive
123-45-6789 | 5148. 7 Panagioti Gyanapolou
789-45-6123 | 7331 A. This address is cool
159-52-1563 | 3140. Ontario drive
(5 rows)

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# \d thismusicproduction.musicians;
Table "thismusicproduction.musicians"
Column | Type | Modifiers
-----
ssn | character varying(11) | not null
name | character varying(15) |
Indexes:
    "musicians_pkey" PRIMARY KEY, btree (ssn)
Referenced by:
    TABLE "thismusicproduction.album" CONSTRAINT "album_musician_ssn_fkey" FOREIGN KEY (musician_ssn) REFERENCES thismusicproduction.musicians(ssn) ON DELETE CASCADE
    TABLE "thismusicproduction.lives" CONSTRAINT "lives_musician_ssn_fkey" FOREIGN KEY (musician_ssn) REFERENCES thismusicproduction.musicians(ssn) ON UPDATE CASCADE
    TABLE "thismusicproduction.perform" CONSTRAINT "perform_musician_ssn_fkey" FOREIGN KEY (musician_ssn) REFERENCES thismusicproduction.musicians(ssn) ON UPDATE CASCADE
    TABLE "thismusicproduction.plays" CONSTRAINT "plays_musician_ssn_fkey" FOREIGN KEY (musician_ssn) REFERENCES thismusicproduction.musicians(ssn) ON UPDATE CASCADE

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# select * from thismusicproduction.musicians;
      ssn      | name
-----+-----
 147-45-4789   | John
 256-69-7858   | Smith
 123-45-6789   | Tyrus
 789-45-6123   | Bob
 159-52-1563   | deadnau5
(5 rows)

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# \d thismusicproduction.perform;
      Table "thismusicproduction.perform"
      Column      |      Type      | Modifiers
-----+-----+-----
 musician_ssn     | character varying(11) | not null
 songs_songid     | integer          | not null
Indexes:
    "perform_pkey" PRIMARY KEY, btree (musician_ssn, songs_songid)
Foreign-key constraints:
    "perform_musician_ssn_fkey" FOREIGN KEY (musician_ssn) REFERENCES thismusicproduction.musicians(ssn) ON UPDATE CASCADE
    "perform_songs_songid_fkey" FOREIGN KEY (songs_songid) REFERENCES thismusicproduction.songs(songid) ON UPDATE CASCADE

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# select * from thismusicproduction.perform;
 musician_ssn | songs_songid 
-----
147-45-4789   | 1
256-69-7858   | 3
123-45-6789   | 2
789-45-6123   | 5
159-52-1563   | 4
(5 rows)

tnalnst=#
```

```
psql -h localhost -p 5432 -U tyru5 -d tmalnst
tnalnst=# \d thismusicproduction.place;
Table "thismusicproduction.place"
Column | Type          | Modifiers 
-----
address | character varying(45) | not null
Indexes:
    "place_pkey" PRIMARY KEY, btree (address)
Referenced by:
    TABLE "thismusicproduction.home" CONSTRAINT "home_place_address_fkey" FOREIGN KEY (place_address) REFERENCES thismusicproduction.place(address) ON UPDATE CASCADE

tnalnst=#
```

```
psql tmalnst
tnalnst=# select * from thismusicproduction.place;
-----
address
-----
3140. Ontario drive
5148. 7 Panagioti Gyanapolou
2250 W. South Drive
1337 Leet Drive
7331 A. This address is cool
(5 rows)

tnalnst=#
```

```
psql tmalnst
tnalnst=# \d thismusicproduction.plays;
Table "thismusicproduction.plays"
-----
Column          | Type          | Modifiers
-----
musician_ssn     | character varying(11) | not null
instrument_instrid | integer       | not null
Indexes:
    "plays_pkey" PRIMARY KEY, btree (musician_ssn, instrument_instrid)
Foreign-key constraints:
    "plays_instrument_instrid_fkey" FOREIGN KEY (instrument_instrid) REFERENCES thismusicproduction.instrument(instrid) ON UPDATE CASCADE
    "plays_musician_ssn_fkey" FOREIGN KEY (musician_ssn) REFERENCES thismusicproduction.musicians(ssn) ON UPDATE CASCADE

tnalnst=#
```



```
psql tmalnst
tmalnst=# select * from thismusicproduction.plays;
 musician_ssn | instrument_instrid
-----
159-52-1563   | 2
123-45-6789   | 4
256-69-7858   | 1
789-45-6123   | 3
147-45-4789   | 5
(5 rows)

tmalnst=#
```

```
psql tmalnst
tmalnst=# \d thismusicproduction.songs;
Table "thismusicproduction.songs"
  Column      |      Type      | Modifiers
-----
 songid       | integer        | not null
 title        | character varying(30)
 author       | character varying(10)
 album_albumidentifier | integer        | not null
Indexes:
    "songs_pkey" PRIMARY KEY, btree (songid)
Foreign-key constraints:
    "songs_album_albumidentifier_fkey" FOREIGN KEY (album_albumidentifier) REFERENCES thismusicproduction.album(albumidentifier) ON DELETE CASCADE
Referenced by:
    TABLE "thismusicproduction.perform" CONSTRAINT "perform_songs_songid_fkey" FOREIGN KEY (songs_songid) REFERENCES thismusicproduction.songs(songid) ON UPDATE CASCADE

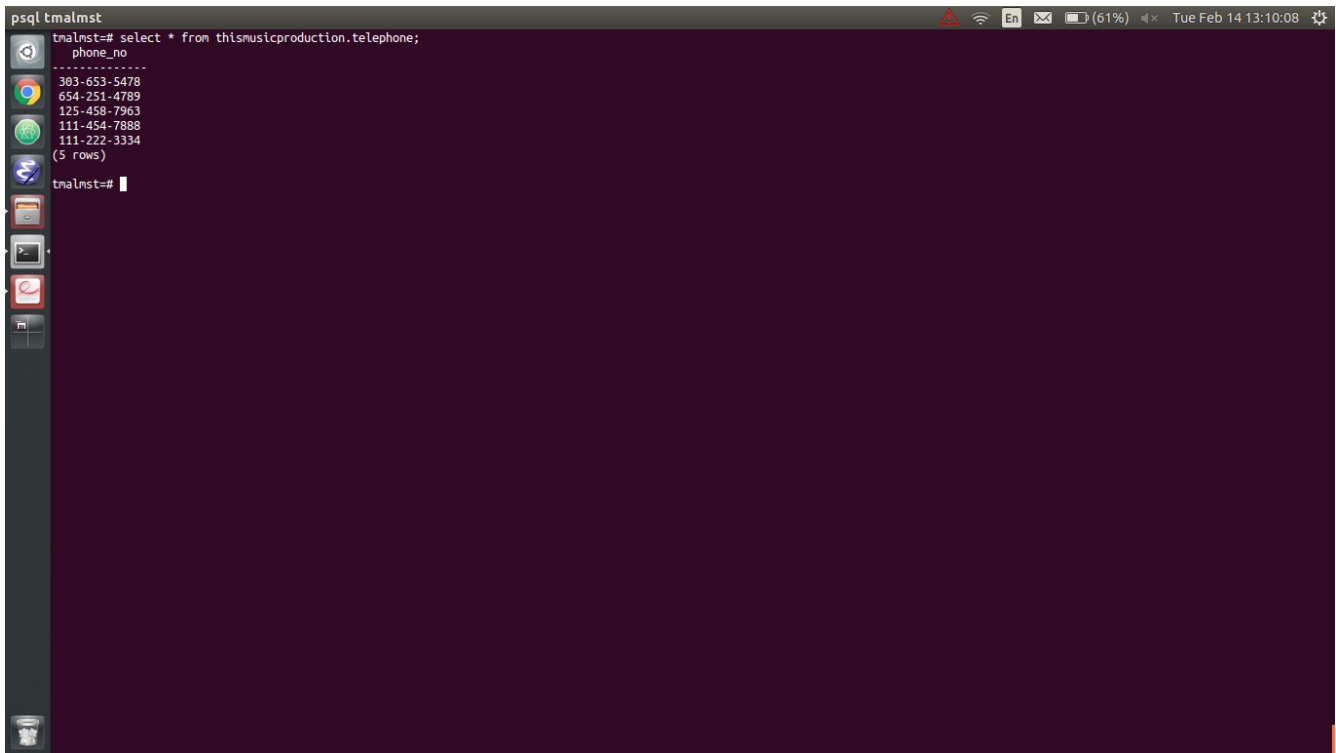
tmalnst=#
```

```
psql tmalnst
tmalnst=# select * from thismusicproduction.songs;
 songid | title | author | album_albumidentifier
-----|-----|-----|-----
1 | Strobe | deadnaus | 1
2 | My Pet Coelacanth | deadnaus | 2
3 | I Remeber ft. Kaskade | deadnaus | 3
4 | The Vedlt | deadnaus | 4
5 | 4ware | deadnaus | 5
(5 rows)

tmalnst=#
```

```
psql tmalnst
tmalnst=# \d thismusicproduction.telephone;
Table "thismusicproduction.telephone"
  Column | Type | Modifiers
-----|-----|-----
phone_no | text | not null
Indexes:
    "telephone_phone_no_key" UNIQUE CONSTRAINT, btree (phone_no)
Referenced by:
    TABLE "thismusicproduction.home" CONSTRAINT "home_telephone_phone_no_fkey" FOREIGN KEY (telephone_phone_no) REFERENCES thismusicproduction.telephone(phone_no) ON UPDATE CASCADE

tmalnst=#
```

A screenshot of a terminal window titled 'psql tmalnst'. The terminal shows a SQL query being executed: 'select \* from thismusicproduction.telephone;'. The result is a table with one column, 'phone\_no', containing five rows of phone numbers. The terminal interface includes a dark background with light-colored text. On the left side, there is a vertical dock with several application icons. The top of the terminal window shows system status information, including battery level (61%) and time (Tue Feb 14 13:10:08).

```
psql tmalnst
tmalnst=# select * from thismusicproduction.telephone;
 phone_no
-----
303-653-5478
654-251-4789
125-458-7963
111-454-7888
111-222-3334
(5 rows)

tmalnst=#
```

Those are all my tables, including all entities, attributes, relationships, and primary, foreign key constraints stated within the assignment description.

Best,  
Tyrus Malmstrom.