# Django manage.py migrate command | Python

Last Updated : 26 Sep, 2019

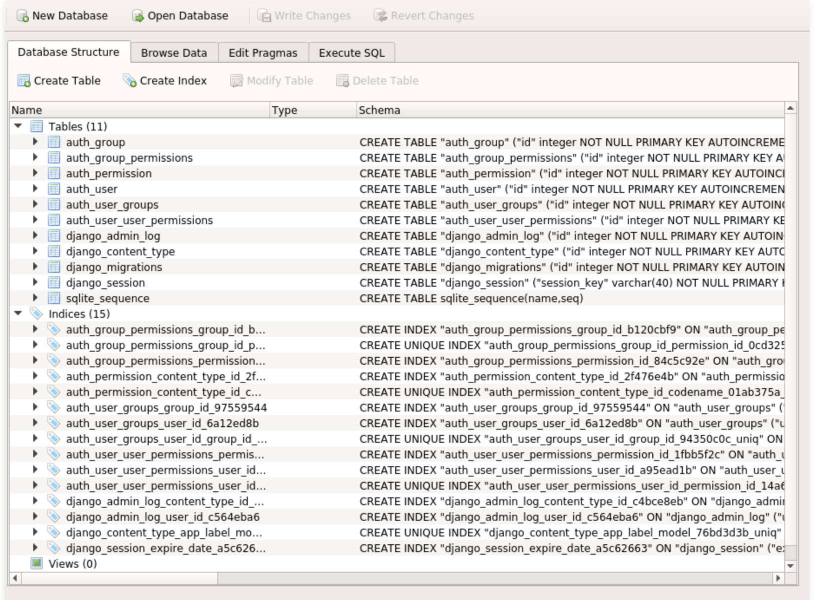
According to documentation, Migrations are Django's way of propagating changes you make to your models (adding a field, deleting a model, etc.) into your database schema. They're designed to be mostly automatic, but you'll need to know when to make migrations when to run them, and the common problems you might run into.

migrate is run through the following command for a Django project.

```
Python manage.py migrate
```

**Django python manage.py migrate command**
migrate executes those SQL commands in the database file. So after executing migrate all the tables of your installed apps are created in your database file.

You can confirm this by installing SQLite browser and opening db.sqlite3 you can see all the tables appears in the database file after executing migrate command.



| Name | Type | Schema |
|---|---|---|
| Tables (11) | | |
| auth_group | | CREATE TABLE "auth_group" ("id" integer NOT NULL PRIMARY KEY AUTOINCREME |
| auth_group_permissions | | CREATE TABLE "auth_group_permissions" ("id" integer NOT NULL PRIMARY KEY A |
| auth_permission | | CREATE TABLE "auth_permission" ("id" integer NOT NULL PRIMARY KEY AUTOINC |
| auth_user | | CREATE TABLE "auth_user" ("id" integer NOT NULL PRIMARY KEY AUTOINCREMEN |
| auth_user_groups | | CREATE TABLE "auth_user_groups" ("id" integer NOT NULL PRIMARY KEY AUTOIN |
| auth_user_user_permissions | | CREATE TABLE "auth_user_user_permissions" ("id" integer NOT NULL PRIMARY KE |
| django_admin_log | | CREATE TABLE "django_admin_log" ("id" integer NOT NULL PRIMARY KEY AUTOIN |
| django_content_type | | CREATE TABLE "django_content_type" ("id" integer NOT NULL PRIMARY KEY AUTO |
| django_migrations | | CREATE TABLE "django_migrations" ("id" integer NOT NULL PRIMARY KEY AUTOIN |
| django_session | | CREATE TABLE "django_session" ("session_key" varchar(40) NOT NULL PRIMARY |
| sqlite_sequence | | CREATE TABLE sqlite_sequence(name,seq) |
| Indices (15) | | |
| auth_group_permissions_group_id_b... | | CREATE INDEX "auth_group_permissions_group_id_b120cbf9" ON "auth_group_pe |
| auth_group_permissions_group_id_p... | | CREATE UNIQUE INDEX "auth_group_permissions_group_id_permission_id_0cd325 |
| auth_group_permissions_permission... | | CREATE INDEX "auth_group_permissions_permission_id_84c5c92e" ON "auth_gro |
| auth_permission_content_type_id_2f... | | CREATE INDEX "auth_permission_content_type_id_2f476e4b" ON "auth_permissio |
| auth_permission_content_type_id_c... | | CREATE UNIQUE INDEX "auth_permission_content_type_id_codename_01ab375a_ |
| auth_user_groups_group_id_97559544 | | CREATE INDEX "auth_user_groups_group_id_97559544" ON "auth_user_groups" ( |
| auth_user_groups_user_id_6a12ed8b | | CREATE INDEX "auth_user_groups_user_id_6a12ed8b" ON "auth_user_groups" ("u |
| auth_user_groups_user_id_group_id_... | | CREATE UNIQUE INDEX "auth_user_groups_user_id_group_id_94350c0c_uniq" ON |
| auth_user_user_permissions_permis... | | CREATE INDEX "auth_user_user_permissions_permission_id_1fbb5f2c" ON "auth_u |
| auth_user_user_permissions_user_id... | | CREATE INDEX "auth_user_user_permissions_user_id_a95ead1b" ON "auth_user_u |
| auth_user_user_permissions_user_id... | | CREATE UNIQUE INDEX "auth_user_user_permissions_user_id_permission_id_14a6 |
| django_admin_log_content_type_id_... | | CREATE INDEX "django_admin_log_content_type_id_c4bce8eb" ON "django_admi |
| django_admin_log_user_id_c564eba6 | | CREATE INDEX "django_admin_log_user_id_c564eba6" ON "django_admin_log" ("u |
| django_content_type_app_label_mo... | | CREATE UNIQUE INDEX "django_content_type_app_label_model_76bd3d3b_uniq" |
| django_session_expire_date_a5c626... | | CREATE INDEX "django_session_expire_date_a5c62663" ON "django_session" ("e |
| Views (0) | | |

For example, if we make a model class-

```
from django.db import models

class Person(models.Model):
    first_name = models.CharField(max_length = 30)
    last_name = models.CharField(max_length = 30)
```

The corresponding sql command after using makemigrations will be

```
CREATE TABLE myapp_person (
"id" serial NOT NULL PRIMARY KEY,
"first_name" varchar(30) NOT NULL,
"last_name" varchar(30) NOT NULL
);
```

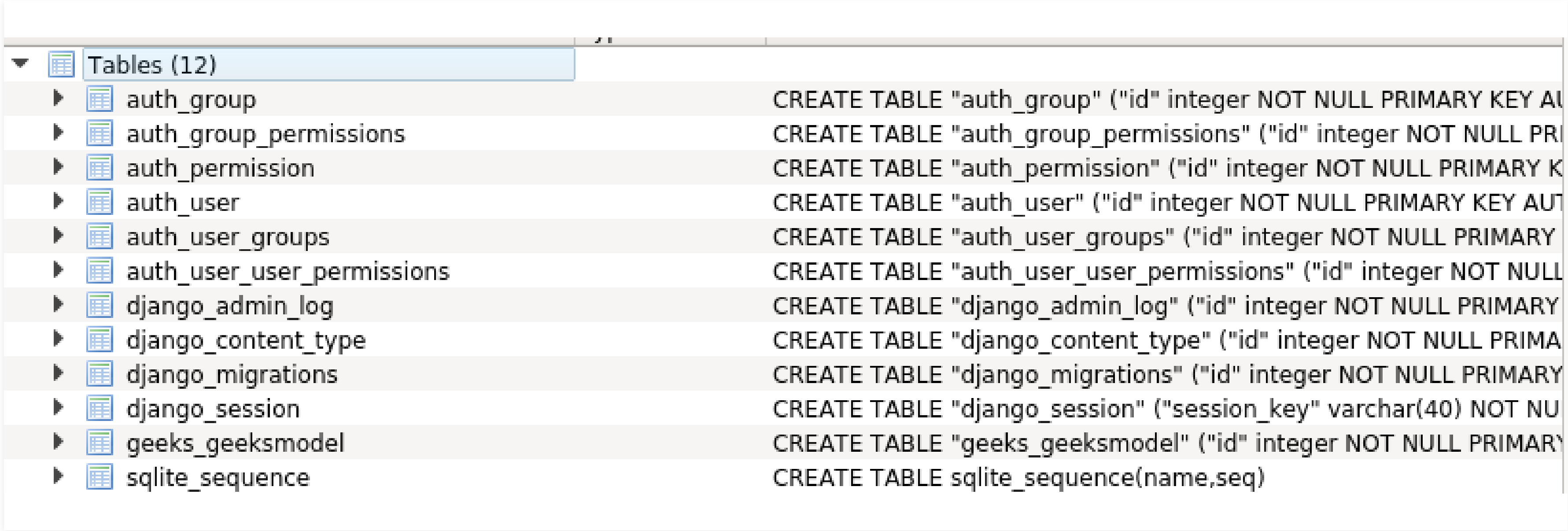
and using above command, table will be created in the database when we use migrate.

Migrate command is covered in next article.

and now form terminal running following command will create table for this model in your database

```
Python manage.py migrate
```

Now if we check our database, a table with name geeks_geeksmodel is created,



| | |
|---|---|
| Tables (12) | |
| auth_group | CREATE TABLE "auth_group" ("id" integer NOT NULL PRIMARY KEY AU |
| auth_group_permissions | CREATE TABLE "auth_group_permissions" ("id" integer NOT NULL PRI |
| auth_permission | CREATE TABLE "auth_permission" ("id" integer NOT NULL PRIMARY K |
| auth_user | CREATE TABLE "auth_user" ("id" integer NOT NULL PRIMARY KEY AUT |
| auth_user_groups | CREATE TABLE "auth_user_groups" ("id" integer NOT NULL PRIMARY |
| auth_user_user_permissions | CREATE TABLE "auth_user_user_permissions" ("id" integer NOT NULL |
| django_admin_log | CREATE TABLE "django_admin_log" ("id" integer NOT NULL PRIMARY |
| django_content_type | CREATE TABLE "django_content_type" ("id" integer NOT NULL PRIMA |
| django_migrations | CREATE TABLE "django_migrations" ("id" integer NOT NULL PRIMARY |
| django_session | CREATE TABLE "django_session" ("session_key" varchar(40) NOT NU |
| geeks_geeksmodel | CREATE TABLE "geeks_geeksmodel" ("id" integer NOT NULL PRIMARY |
| sqlite_sequence | CREATE TABLE sqlite_sequence(name,seq) |

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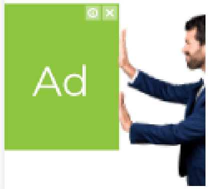

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