**Setting Up Database**

**Create Migrations:**

* **Migrations take my models that I created, then create or update the database tables based on my models for each app.**
* **To create a migration, I use command: python3 manage app.py createmigrations.**
  + **If I update my model and run the command again, I will get another file contains the update.**
  + **If I get no changes detected it means I either did not update models or I did not add the app to installed apps.**
* **It will automatically create a file inside migrations folder with sequence of numbers.**
* **The file contains a migration model contains name property and operations list:**
* **The operations is responsible for creating my models with each field.**
* **If I decide to change the name of my migration file, I will have to find where apps depend on it and change to the new name as well.**
* **Slug field create a slug url: example = this is a slug becomes (this-is-a-slug)**
* **If I create a field and try to make migrations, some fields will require me to add default value:**
  + **I add it inside model, to add default value on previous records or future records.**
  + **inside terminal – to add the default value only once**
  + **Also I can make it nullable, meaning that the model will fill previous fields with null values.**

**Run Migrations**

* **To migrate tables to database run: python3 manage.py migrate.**
* **If I want to run migration specific.**

**Revert a migration:**

* **If I want to revert a migration on one thing I simply go to the edited model and do fix the problem then I create a new migration.**
* **If I decide I don’t want the whole migration I run migration and I add the migration file name to back to it.**
  + **python3 manage.py migrate appName migrateFileName: example python3 manage.py migrate store 0001\_initial.**
  + **Then I remove the code that I applied for the migration I don’t want any longer.**
  + **Then I remove the file.**

**Running custom query**

* **Create a migration file and empty one : python3 manage.py migrate appName –empty**
  + **Inside the migration file inside operations:**
  + **Run migrations.SQL and it take two parameters, one to upgrade, second to downgrade.**
    - **Migrations.SQL(“insert, select update and queri” , downgrade database query)**
  + **The second parameter is optional, but I need to use it to remove the migrations that I made.**