# How to work with Mysql for Django.

First of all install mysql or xampp(wamp, mamp or lamp) according to your operating system

Then create a database, lets call it Django_db

Now in settings file of your project (settings.py), in database section add following credentials:

```
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.mysql',
        'NAME': 'django_db',
        'USER': 'root',
        'PASSWORD': '',
        'HOST': 'localhost',
        'PORT': '3306'
    }
}
```

You have to change the engine to mysql and change other fields according to your mysql setup.

Now when you try to run your server it may give you error and ask you to install 'mysqlclient'.

For that you can install it using command 'pip install mysqlclient'.

If you again face an error, do it manually:

Go to the following site

https://www.lfd.uci.edu/~gohlke/pythonlibs/

Go to the section where there are links for downloading mysqlclient. (Download the version according to your Django version with 32 bit not 64 bit)

After downloading, do not change the file name and put it in your project root folder. Then run a following command:

pip install mysqlclient-1.4.6-cp38-cp38-win32.whl (remember the file name)

After successful installation, run your server.

# Migrations:

**Migrations** in **Django** are a way of propagating changes made in the model into the database schema.

Run the following command in the command prompt:

Python manage.py migrate

It will create all the default tables for Django.

Now you can create your own migration:

```python
from django.db import models

# Create your models here.
# CharField = varchar
# FloatField = Float
# IntegerField = Interger

class Room(models.Model):
    room_name = models.CharField(max_length=50)
    room_number = models.FloatField()
    room_floor = models.CharField(max_length=50)
```

In settings file add room.apps.RoomConfig (suppose your model name is room) in INSTALLED_APPS section

```python
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'room.apps.RoomConfig',
]
```

Now make the migrations using following command:

Python manage.py makemigrations

Now,

Run the following command

Python manage.py migrate