**#1 : Initializing environment and project**

*Create a virtual environment:*

conda create --name myEnv django

*Activate the virtual environment:*

conda activate myEnv

*Install Django in the virtual environment:*

conda install django

Initiate Django project:

django-admin startproject first\_project

**#2: Making Django application**

*Initialize the application:*

cd first\_project

make a new app named data\_app:

python manage.py startapp data\_app

**# 3: Connect Django Project to DBMS:**

Install pymysql client to enable connection to SQL:

import pymysql

pymysql.install\_as\_MySQLdb()

include this package in the init file of project This will instruct Django to use PyMySQL as the MySQL database backend.

In models.py define each and every table made:

from django.db import models

# myapp/models.py

# model = Table name

class Harvest(models.Model):

    #attribute names

    h\_id = models.IntegerField(primary\_key=True)

    date = models.DateField()

    quantity = models.IntegerField()

    plant\_id = models.IntegerField()

    plot\_id = models.IntegerField()

    member\_id = models.IntegerField()

    def \_\_str\_\_(self):

        return f"Harvest {self.h\_id}"

#4. Retrieve the data:

Make a view to handle data flow:

from django.shortcuts import render

# Create your views here.

# myapp/views.py

from django.http import JsonResponse

from .models import Harvest

def harvest\_list(request):

    harvests = Harvest.objects.all().values()

    harvest\_list = list(harvests)  # Convert QuerySet to a list for JSON serialization

    return JsonResponse({'harvest': harvest\_list})