Module – 5 (DB and Python Framework)

* Why Django should be used for web-development?

Explain how you can create a project in Django?

Answer:- Django is a high level Python web framework that is open-sourced and follows an MVT(Model View Template) type of architecture.

1. Simplifies Development to a Huge Extent
2. Provides Inbuilt and Up-to-Date Security Features
3. Suitable For Any Type of Project
4. Contains Support For REST APIs
5. Massive Community Support

Now, let’s discuss how you can create a project in Django:

1. First install Virtual Environment:-Before creating a Django project, you need to have Python installed on your system. Once Python is installed, you can use pip, the python package manager, to install Virtual Enviroment.

Virtualenv is a tool to set up your Python environments. You can install venv to your host Python by running this command in your terminal :

pip install virtualenv

1. Create a Virtual Environment:-

python -m venv myenv

1. Navigate into the myenv:-

cd myenv

1. Activate the Virtual Environment:-

Scripts\activate

1. Install the django:- You can use pip, the Python package manager, to install Django.

pip install django

1. Create a Django project :- After installing Django, you can create a new Django project using the ‘django-admin’ command.

django-admin startproject myproject

1. Nevigate to the project :-

cd myproject

1. Create a new app within a Django Project :-

python manage.py startapp myapp

1. Run the Development Server :-

python manage.py runserver

This will start the development server, and you can access your Django project by visiting ‘http://localhost:8000’ in your web browser.

* How to check installed version of django?

Answer:- To check installed version of django by running this command in your terminal:-

python -m django –version

* Explain what does django-admin.py make messages command is used for?

Answer:- django-admin.py make messages is a command used in Django to facilitate the internationalization and localization process by generating language translation message files based on marked strings in the code.

* What is Django URLs? make program to create django urls.

Answer:- Create a file named urls.py in the same folder as the views.py file, and type this code in it:

myproject/myapp/urls.py :-

from django.contrib import admin

from django.urls import path

from . import views

urlpatterns = [

path('', views.index,name='index'),

]

The urls.py file you just created is specific for the myapp application. We have to do some routing in the root directory myproject as well.

There is a file called urls.py on the myproject folder, open that file and add the include module in the import statement, and also add a path() function in the urlpatterns[] list, with arguments that will route users that comes in via 127.0.0.1:8000/.

Then your file will look like this:

myproject/myproject/urls.py:-

from django.contrib import admin

from django.urls import path,include

urlpatterns = [

path('admin/', admin.site.urls),

path('',include('myapp.urls')),

]

* What is a QuerySet? Write program to create a new Post object in database.

Answer:- QuerySet is a collection of database query results. It represents a set of objects retrieved from the database based on a certain filter condition, order, or other query parameters.

Create a Post named model :-

myproject/myapp/models.py:-

from django.db import models

class Post(models.Model):

title = models.CharField(max\_length=20)

content = models.TextField()

To create a new Post object in database, you can use following code:-

myproject/myapp/views.py :-

from models import \*

Post.objects.create(

title = “my title ”,

content = “my content”

)

* Mention what command line can be used to load data into Django?

Answer:- The ‘loaddata’ command is used to load data from fixture files into the database .

Here’s the syntax for using the ‘loaddata’ command :-

python manage.py loaddata <fixture\_file\_name>