

# Module – 5(DB & Framework)

## 1). Why Django Should Be Used For Web-Development Explain how can create a project in django?

Django is an open-source framework for backend web applications based on Python.

one of the top web development languages. Its main goals are simplicity, flexibility, reliability, and scalability.

Django has its own naming system for all functions and components. It also has an admin panel.

~ Step following Create a Project In Django:

1. Creat Project Folder in any Safe drive.
2. Opne CMD & install django latest verson in your pc/laptop.
3. Command : pip install django , check version command: Django-admin --version , specific command: pip install django==3.0
4. Than create a virtual environment in your project folder via cmd.
5. Command: pip install virtualenv (name : myenv)
6. Than your virtual environment(myenv) activate via cmd.
7. Go back your project folder in cmd use cd.. command.

8. Create project command : `django-admin startproject demoproject`

9. Than open project command : `code .`

Complete your django project creation.

## 2). How to check installed version of django ?

CMD command : `django-admin --version`

## 3). Explain what does `django-admin.py` make messages command is used for?

`Manage.py` in Django is a command-line utility that works similar to the `django-admin` command.

The difference is that it points towards the project's `settings.py` file.

This `manage.py` utility provides various commands that you must have while working with Django.

Some of the most commonly used commands are –

- `python manage.py startapp`
- `python manage.py makemigrations`
- `python manage.py migrate`
- `python manage.py runserver`

#### 4). What is django URLs? Make program to create django urls.

In Django, views are Python functions which take a URL request as parameter and return an HTTP response or throw an exception like 404.

Each view needs to be mapped to a corresponding URL pattern. This is done via a Python module called URLConf(URL configuration).

~ example :

```
from django.contrib import admin
from django.urls import path,include
```

```
urlpatterns = [
    path('admin/', admin.site.urls),
    path("",include('myapp.urls')),
]
```

#### 5). What is a QuerySet ? write program to create a new post object.

A QuerySet is a collection of data from a database.

A QuerySet is built up as a list of objects.

QuerySets makes it easier to get the data you actually need, by allowing you to filter and order the data at an early stage.

~ Example :

ID	FristName	LastName	Mobile
01	Neha	Garaniya	2486759658
02	Manish	Ahir	2579463155
03	Tejas	Der	5874962314
04	Nirali	der	2697458123

#### **---- models.py**

```
From django.db import models
Class userinfo(models.Model):
    Fristname=models.CharField(max_length=20)
    Lastname=models.CharField(max_length=20)
    Mobile=models.BigIntegerField()
```

#### **---- views.py**

```
From django.shortcuts import render
From .models import userinfo
Def index(request):
    If request.method=='POST':
        Newuser=userdataform(request.POST)
        If newuse.is_valid():
            Newuser.save()
            Print("data has been saved")
        Else:
            Print(newuser.errors)
    Return render (request, 'index.html')
```

#### **---- templates/ index.html**

```
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Welcome</title>
    <link rel="icon" type="image/x-icon" href="/static/imgs/favicon_app.png">
</head>
<body style="background-color: rgb(179, 179, 23);">
    <center><h1>Welcome to Database Project</h1></center>
    <hr>
    <form method="post">
        {% csrf_token %}
        <input type="text" name="firstname" placeholder="Firstname"><br><br>
        <input type="text" name="lastname" placeholder="Lastname"><br><br>
        <input type="number" name="mobile" placeholder="mobile"><br><br>
        <input type="submit" value="Save">
        <input type="reset">
    </form>
    <hr>
</body>
</html>
```

**Note:** In the example we use the `.all()` method to get all the records and fields of the table.

## 6). Mention what command line can be used to load data into django ?

To load data into Django you have to use the command line `Django-admin.py loaddata`.

The command line will search the data and load the contents of the named fixtures into the database.