How to create a Django project?

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Dive into the world of web development with **Python** by exploring the versatile Django framework. **Django** is a go-to for many developers due to its popularity, open-source license, and robust security features. It enables fast and efficient project development. In this tutorial, we will guide you through the process of installing Django on a Windows machine using pip, verifying the installation, creating a new project, and launching a Django development server. Get ready to enhance your web development skills and experience the power of Django.
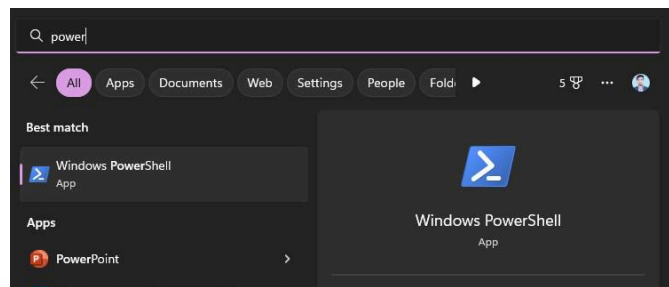
Create a Project in Django

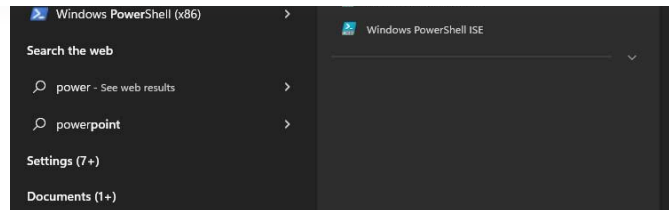Before you begin, you will need to have the following:

- Windows 10 or later
- Python 3.6 or later
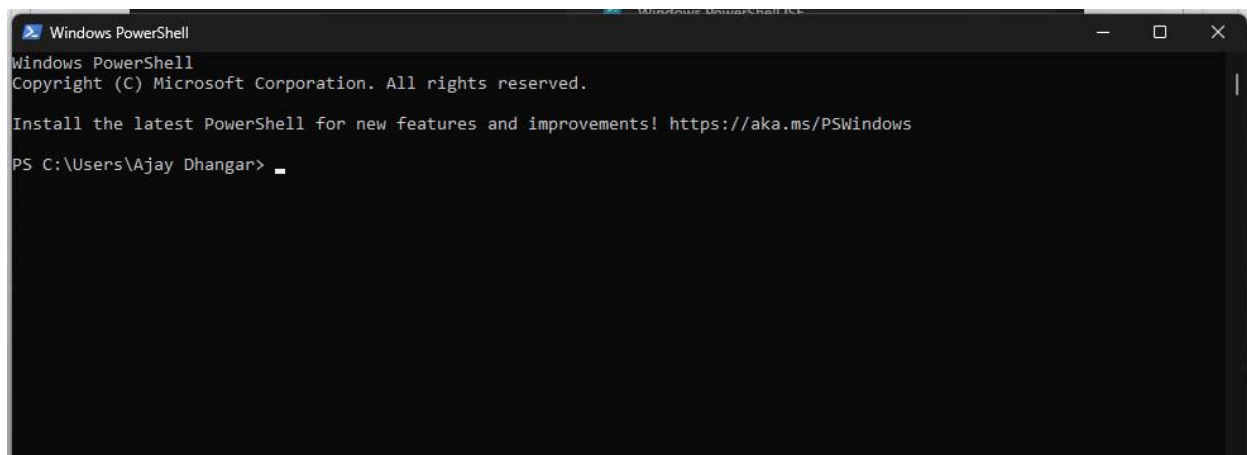- **Python pip**

Step 1: Opening PowerShell

The first step is to open PowerShell. To do this, press the Windows key and type **PowerShell**. Right-click on the PowerShell icon and select **Run as Administrator.**

PowerShell

Django   Views   Model   Template   Forms   Jinja   Python SQLite   Flask   Json   Postman   Interview Ques
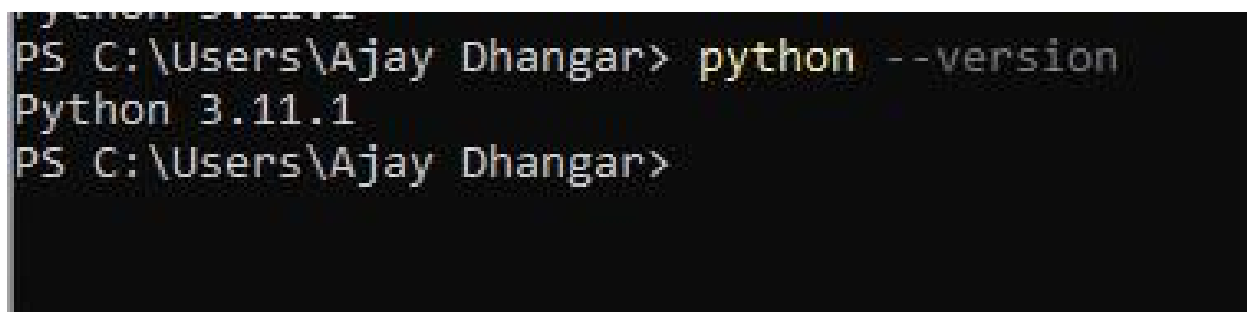

open PowerShell

Step 2: Verifying Python Installation

Once PowerShell is open, you can verify that Python is installed by typing *python –version*. This will display the version of Python that is installed.
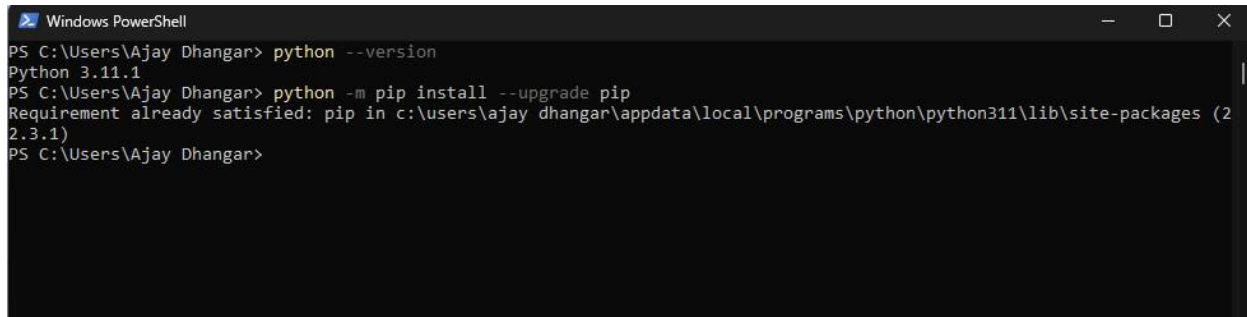
Terminal command:

```
python --version
```

Python is installed

Step 3: Upgrading PIP

Next, you will need to upgrade *pip*. To do this, type *python -m pip install –upgrade pip*. This will ensure that you have the latest version of pip installed.
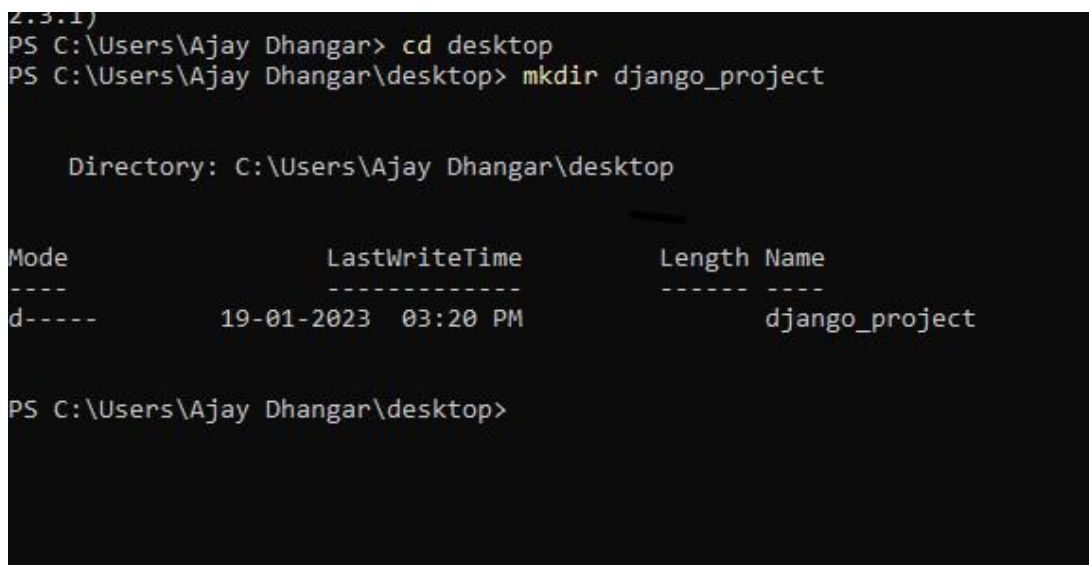

upgrade pip

Step 4: Creating a Project Directory

Now, you will need to create a project directory. To do this, type **mkdir myproject**. This will create a directory called **myproject.**

(i) Create the directory by utilizing the **mkdir** command. This command is a powerful tool that allows you to quickly and easily create a directory in your system. With this command, you can create a directory in seconds, making it a great time-saver for any user.

```
mkdir django_project
```

Create the directory

(ii) Navigate to the *Django_Project* directory using the `cd` command. Here, you'll find all the necessary components to get your project up and running.

```
cd django_project
```


Django_Project directory

Step 5: Creating the Virtual Environment

Next, you will need to create a virtual environment. To create a virtual environment called **myproject**.

To do this, type in terminal

```
python -m venv myproject
```

python -m venv myproject and ls

Step 6: Activating the Virtual Environment

Now, you will need to activate the virtual environment. To do this, type

```
venv\Scripts\activate
```


activate the virtual environment

Step 7: Installing Django

This section will teach you how to install Django on your system using *pip*. To do this, run the following command:

```
pip install Django
```

This will install the latest version of Django, allowing you to start building powerful web applications easily.

Installing Django

If you wish to install a different version of Django, you can easily specify the
version you desire by following these steps:

```
pip install django
```


version of Django

Once the installation is complete, you must verify that Django has been
successfully installed. To do this, enter the following command:

```
django-admin --version
```


Django version

Step 8: Create the Django Project

Now it's time to create a project. According to the Django documentation, a project is a Python package – i.e. a directory of code – that contains all the settings for an instance of Django. This includes database configuration, Django-specific options, and application-specific settings.

To create the project, use the command-line utility *django-admin* that comes with Django. This command will generate files where you can configure the settings for your database, add third-party packages, and more.

Create the project using the following command:

```
django-admin startproject test_project
```

Change into the *test_project* directory:

```
cd test_project
```

Type the following command to see the contents in the project directory:

```
ls test_project
```

Output:

```
(venv) PS C:\Users\Ajay Dhangar\desktop\django_project> django-admin startproject test_project
(venv) PS C:\Users\Ajay Dhangar\desktop\django_project> cd test_project
(venv) PS C:\Users\Ajay Dhangar\desktop\django_project\test_project> ls test_project


    Directory: C:\Users\Ajay Dhangar\desktop\django_project\test_project\test_project


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----        19-01-2023   04:31 PM            417 asgi.py
-a----        19-01-2023   04:31 PM           3209 settings.py
-a----        19-01-2023   04:31 PM            775 urls.py
-a----        19-01-2023   04:31 PM            417 wsgi.py
-a----        19-01-2023   04:31 PM              0 __init__.py


(venv) PS C:\Users\Ajay Dhangar\desktop\django_project\test_project> _
```

output

The directory *test_project* contains Django configuration files. The manage.py file is especially useful when starting a development server, which is what you will do in the next step.

Step 9: Running the Development Server

Now that the project has been created, it's time to start the Django development server.Start the development server using the *manage.py runserver* command:

Note: Make sure sure you are in the same directory as manage.py file after to run manage.py runserver

```
python manage.py runserver
```
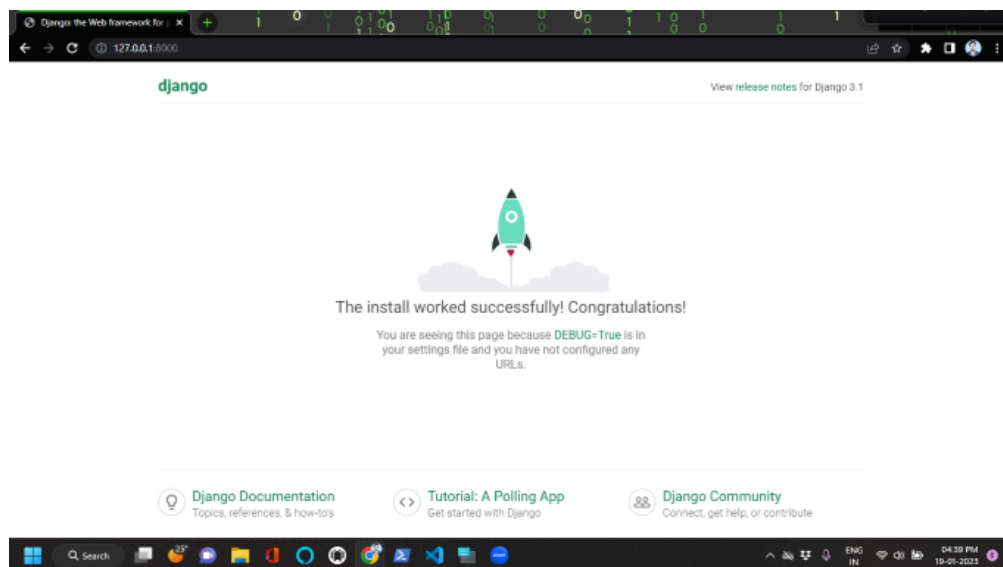

Start

Now, Go to *http://127.0.0.1:8000/* in your web browser. You should see a page similar to the following screenshot:

Conclusion:

You have come to the end of this article. You learned how to install Django on

Windows, verify the installation, and you also learned how to create a Django project and start a development server.

Step 10: Create app in django

Now as we created the project in django and our django server is up and running and if now to create app in django project we can achieve it b by using django inbuit command which will initiate the django app for us.

Note: Make sure before running the command we must inside our project directory if not then run the below command

```
cd test_project
```

now we are inside the test_project and we are ready to create django app

```
django-admin startapp test_app
```

Now this command will create app inside our project and we ready to go with the django project and to know more about django app you can refer to the article – How to create app in django.

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