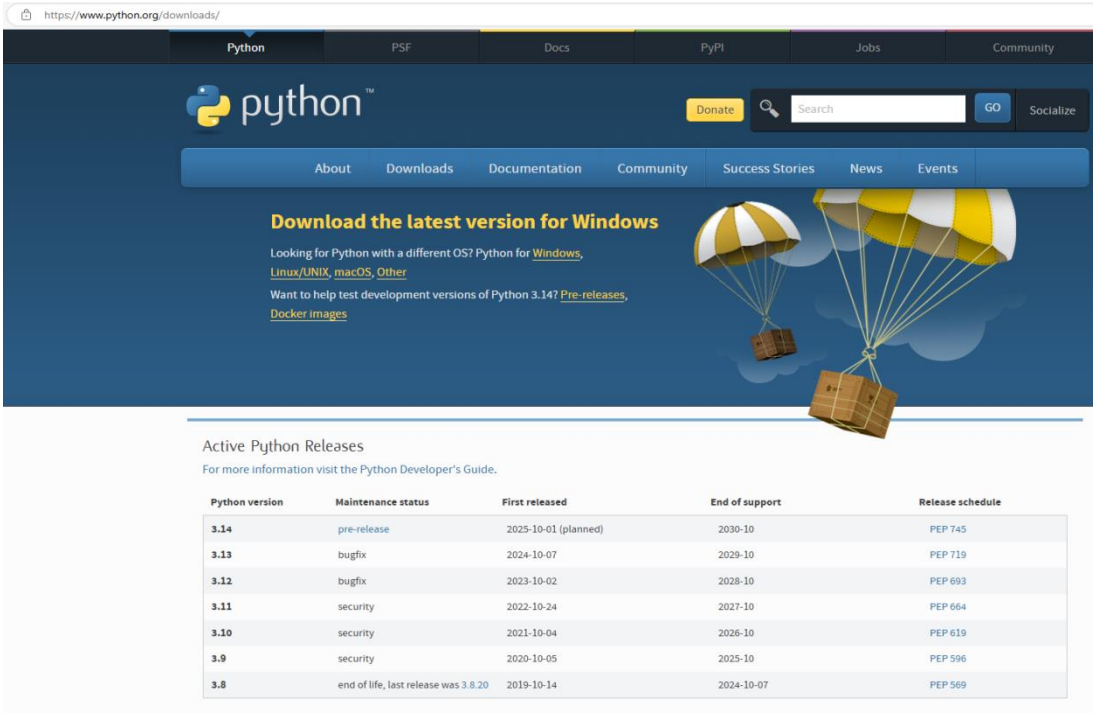
NAME: **LARONG, LOUIE JAY H. - BSCPE 2A**

COURSE**: SOFTWARE DESIGN**

Laboratory Activity No. 1

1. Install Python



2. Install pip

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\EB204_02\Desktop\LARONG> python -m ensurepip --upgrade
Looking in links: c:\Users\EB204_02\AppData\Local\Temp\tmph6850y8x
Requirement already satisfied: pip in c:\users\eb204_02\appdata\local\programs\python\python313\lib\site-packages (24.3.1)
PS C:\Users\EB204_02\Desktop\LARONG>
```

3. Install Virtual Environment

```
PS C:\Users\EB204_02\Desktop\LARONG> pip install virtualenv
>>
Requirement already satisfied: virtualenv in c:\users\eb204_02\appdata\local\programs\python\python313\lib\site-packages (20.2
Requirement already satisfied: distlib<1,>=0.3.7 in c:\users\eb204_02\appdata\local\programs\python\python313\lib\site-package
Requirement already satisfied: filelock<4,>=3.12.2 in c:\users\eb204_02\appdata\local\programs\python\python313\lib\site-packa
Requirement already satisfied: platformdirs<5,>=3.9.1 in c:\users\eb204_02\appdata\local\programs\python\python313\lib\site-pa

[notice] A new release of pip is available: 24.3.1 -> 25.0
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\EB204_02\Desktop\LARONG>
```

Create a new virtual environment:

```
  [notice] A new release of pip is available: 24.3.1 -> 25.0
  [notice] To update, run: python.exe -m pip install --upgrade pip
  PS C:\Users\EB204_02\Desktop\LARONG> python -m venv library_env
● >>
○ PS C:\Users\EB204_02\Desktop\LARONG>
```

Activate the virtual environment on Windows:

```
● >>
● PS C:\Users\EB204_02\Desktop\LARONG> .\library_env\Scripts\activate
○ (library_env) PS C:\Users\EB204_02\Desktop\LARONG>
```

Install Django:

```
● (library_env) PS C:\Users\EB204_02\Desktop\LARONG> pip install django
  Collecting django
    Using cached Django-5.1.5-py3-none-any.whl.metadata (4.2 kB)
  Collecting asgiref<4,>=3.8.1 (from django)
    Using cached asgiref-3.8.1-py3-none-any.whl.metadata (9.3 kB)
  Collecting sqlparse>=0.3.1 (from django)
    Using cached sqlparse-0.5.3-py3-none-any.whl.metadata (3.9 kB)
  Collecting tzdata (from django)
    Using cached tzdata-2025.1-py2.py3-none-any.whl.metadata (1.4 kB)
  Using cached Django-5.1.5-py3-none-any.whl (8.3 MB)
  Using cached asgiref-3.8.1-py3-none-any.whl (23 kB)
  Using cached sqlparse-0.5.3-py3-none-any.whl (44 kB)
  Using cached tzdata-2025.1-py2.py3-none-any.whl (346 kB)
  Installing collected packages: tzdata, sqlparse, asgiref, django
  Successfully installed asgiref-3.8.1 django-5.1.5 sqlparse-0.5.3 tzdata-2025.1

  [notice] A new release of pip is available: 24.3.1 -> 25.0
  [notice] To update, run: python.exe -m pip install --upgrade pip
○ (library_env) PS C:\Users\EB204_02\Desktop\LARONG>
```

```
● (library_env) PS C:\Users\EB204_02\Desktop\LARONG> django-admin --version
  >>
  5.1.5
○ (library_env) PS C:\Users\EB204_02\Desktop\LARONG>
```

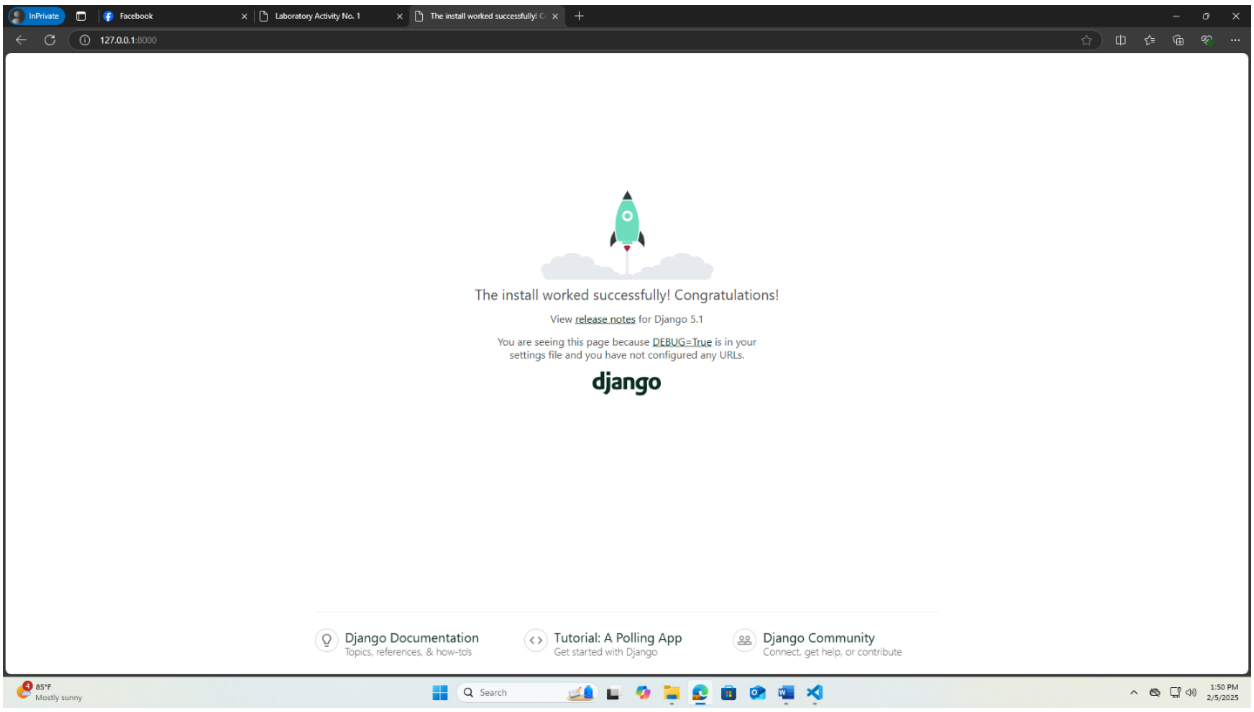
```
● (library_env) PS C:\Users\EB204_02\Desktop\LARONG> django-admin startproject library_system
  >>
○ (library_env) PS C:\Users\EB204_02\Desktop\LARONG>
```

```
● (library_env) PS C:\Users\EB204_02\Desktop\LARONG> cd library_system
○ (library_env) PS C:\Users\EB204_02\Desktop\LARONG\library_system>
```

```
(library_env) PS C:\Users\EB204_02\Desktop\LARONG\library_system> python manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
February 05, 2025 - 13:49:06
Django version 5.1.5, using settings 'library_system.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```



Follow-Up Questions:

1. **What is the role of a virtual environment in Django development?**

Answer: It acts as a separate location in order for us to prevent conflicts with our global packages.

2. **What are the advantages of using Django for web development over other frameworks?**

Answer: Django user python as its main programming language which is very versatile and easy to learn providing efficient usage for Django.

Findings:

-I find web development entertaining and easy at the same time with the amount of resources available at our disposal.

Summary:

-Laboratory activity 1 is intended for us to be introduced to how to design a web domain and teachers us the steps on how to create and develop a web domain using Django.

Conclusion:

-In conclusion, Django is a go to web development application for beginners, intermediate and professional web developers as it is very versatile and has a friendly user interface.