


A simple python web application

Setp 1:

Create a new virtual environment by following commands

“python –m install virtualenv”

“python –m virtualenv env”



```
09:35:05 python
# python -m virtualenv flaskenv
created virtual environment CPython3.12.4.final.0-64 in 642ms
  creator CPython3Windows(dest=C:\Users\Apple\WorkSpace\assignment-4\python\
flaskenv, clear=False, no_vcs_ignore=False, global=False)
  seeder FromAppData(download=False, pip=bundle, via=copy, app_data_dir=C:\U
sers\Apple\AppData\Local\pypa\virtualenv)
    added seed packages: pip==24.1
    activators BashActivator,BatchActivator,FishActivator,NushellActivator,Pow
erShellActivator,PythonActivator


09:35:19 python
# source flaskenv/Scripts/ac
activate          activate.fish      activate.ps1
activate.bat      activate.nu        activate_this.py

09:35:19 python
# source flaskenv/Scripts/activate
(flaskenv)
09:35:28 python
# ls
flaskenv
(flaskenv)
09:35:31 python
#
```

Step 2:

Install required library Flask by running command

“pip install Flask”

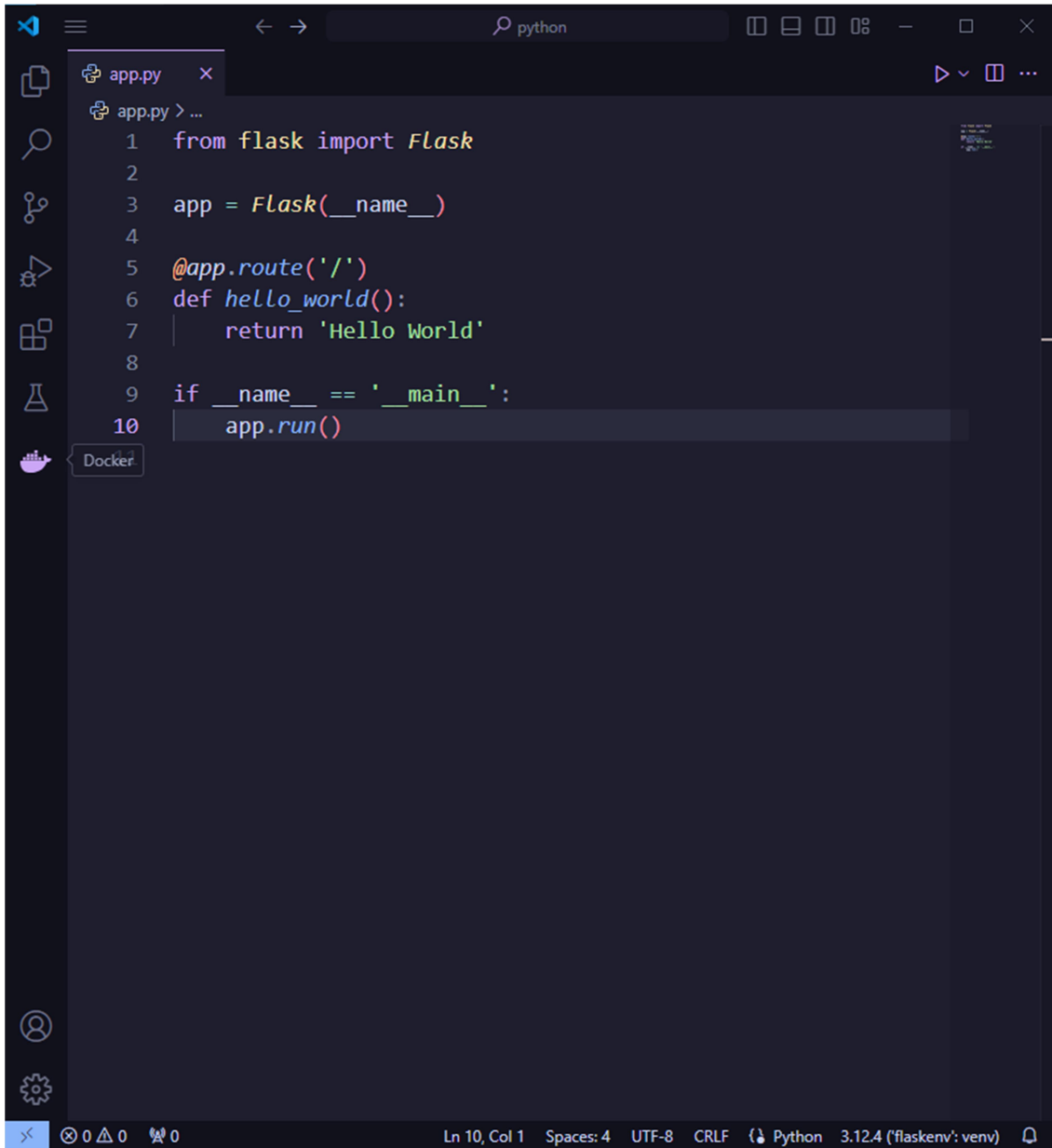


```
(flaskenv)
09:38:47 python
# pip install Flask
Collecting Flask
  Downloading flask-3.0.3-py3-none-any.whl.metadata (3.2 kB)
Collecting Werkzeug>=3.0.0 (from Flask)
  Downloading werkzeug-3.0.3-py3-none-any.whl.metadata (3.7 kB)
Collecting Jinja2>=3.1.2 (from Flask)
  Downloading jinja2-3.1.4-py3-none-any.whl.metadata (2.6 kB)
Collecting itsdangerous>=2.1.2 (from Flask)
  Downloading itsdangerous-2.2.0-py3-none-any.whl.metadata (1.9 kB)
Collecting click>=8.1.3 (from Flask)
  Downloading click-8.1.7-py3-none-any.whl.metadata (3.0 kB)
Collecting blinker>=1.6.2 (from Flask)
  Downloading blinker-1.8.2-py3-none-any.whl.metadata (1.6 kB)
Collecting colorama (from click>=8.1.3->Flask)
  Downloading colorama-0.4.6-py2.py3-none-any.whl.metadata (17 kB)
Collecting MarkupSafe>=2.0 (from Jinja2>=3.1.2->Flask)
  Downloading MarkupSafe-2.1.5-cp312-cp312-win_amd64.whl.metadata (3.1 kB)
Downloading flask-3.0.3-py3-none-any.whl (101 kB)
  101.7/101.7 kB 2.9 MB/s eta 0:00:00
Downloading blinker-1.8.2-py3-none-any.whl (9.5 kB)
Downloading click-8.1.7-py3-none-any.whl (97 kB)
  97.9/97.9 kB 5.5 MB/s eta 0:00:00
Downloading itsdangerous-2.2.0-py3-none-any.whl (16 kB)
Downloading jinja2-3.1.4-py3-none-any.whl (133 kB)
  133.3/133.3 kB 7.7 MB/s eta 0:00:00
Downloading werkzeug-3.0.3-py3-none-any.whl (227 kB)
  227.3/227.3 kB 6.8 MB/s eta 0:00:00
Downloading MarkupSafe-2.1.5-cp312-cp312-win_amd64.whl (17 kB)
Downloading colorama-0.4.6-py2.py3-none-any.whl (25 kB)
Installing collected packages: MarkupSafe, itsdangerous, colorama, blinker, Werkzeug, Jinja2, click, Flask
Successfully installed Flask-3.0.3 Jinja2-3.1.4 MarkupSafe-2.1.5 Werkzeug-3.0.3 blinker-1.8.2 click-8.1.7 colorama-0.4.6 itsdangerous-2.2.0
```

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Step 3:

Write a simple flask application.



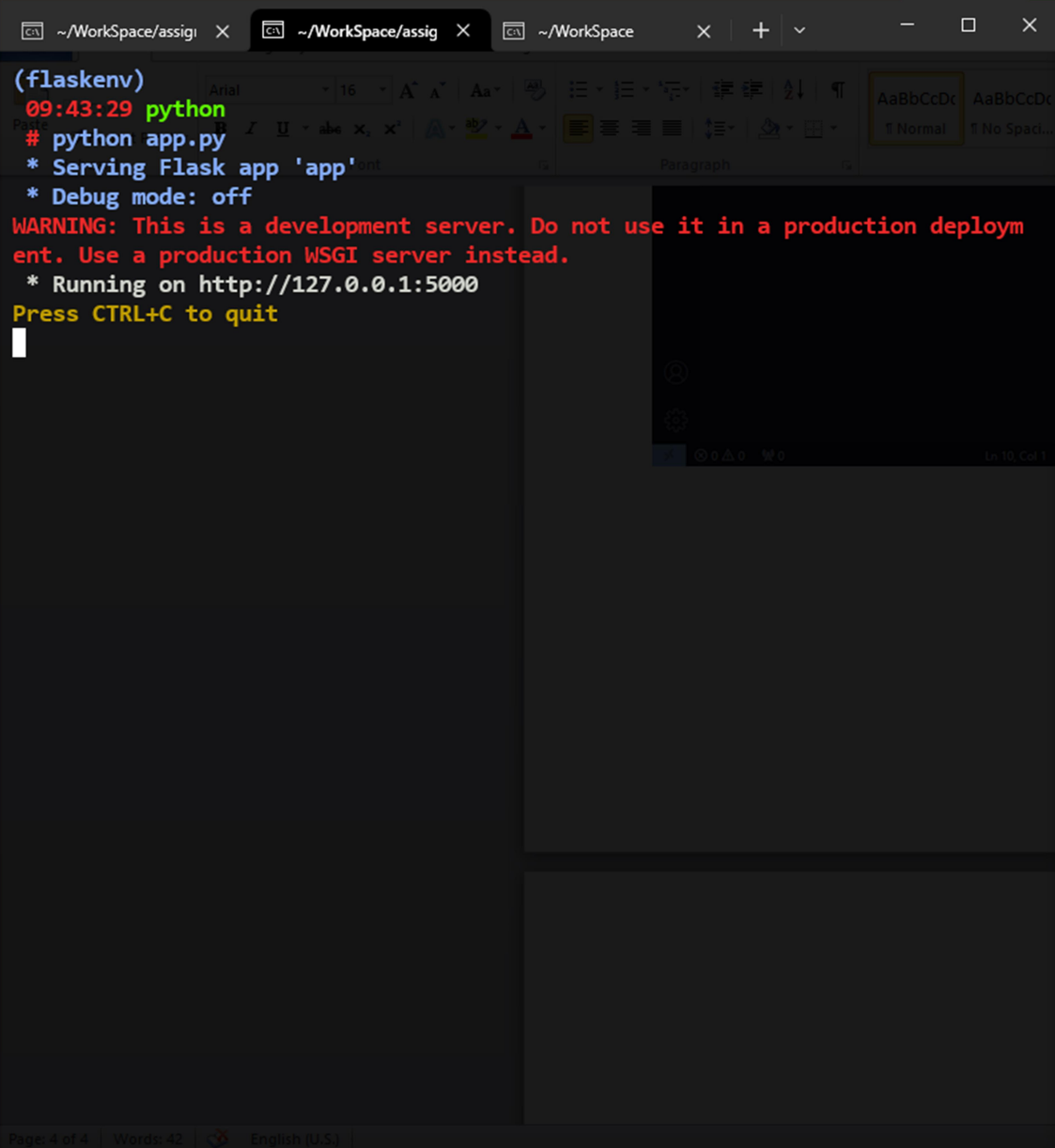
The image shows a code editor window with a dark theme. The editor is displaying a Python file named `app.py`. The code is a simple Flask application that imports the `Flask` class, creates an application instance, defines a `hello_world` route, and runs the application. The code is as follows:

```
1 from flask import Flask
2
3 app = Flask(__name__)
4
5 @app.route('/')
6 def hello_world():
7     return 'Hello World'
8
9 if __name__ == '__main__':
10     app.run()
```

The editor interface includes a sidebar on the left with icons for Explorer, Search, Source Control, Run and Debug, Extensions, Testing, Docker, and User. The bottom status bar shows the current line and column (Ln 10, Col 1), indentation (Spaces: 4), encoding (UTF-8), line endings (CRLF), and the active Python environment (Python 3.12.4 ('flaskenv': venv)).

Step 4:

Start the server “python app.py”



The screenshot shows a terminal window with a dark background. The prompt is `(flaskenv)`. The user has entered `python` and `# python app.py`. The output shows the Flask application is serving on `http://127.0.0.1:5000`. A warning message is displayed: `WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.` The prompt `Press CTRL+C to quit` is shown. The terminal window has a title bar with three tabs: `~/Workspace/assigni`, `~/Workspace/assigni`, and `~/Workspace`. The status bar at the bottom indicates `Page: 4 of 4`, `Words: 42`, and `English (U.S.)`.

```
(flaskenv)
09:43:29 python
# python app.py
* Serving Flask app 'app'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
```