



TECHNIK NEST

INNOVATIVE MINDS, NESTING SUCCESS

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Internship Domain : Python Internee

Task Week : 6th

Instructor Name : Hassan

Task 1 :

Solution :

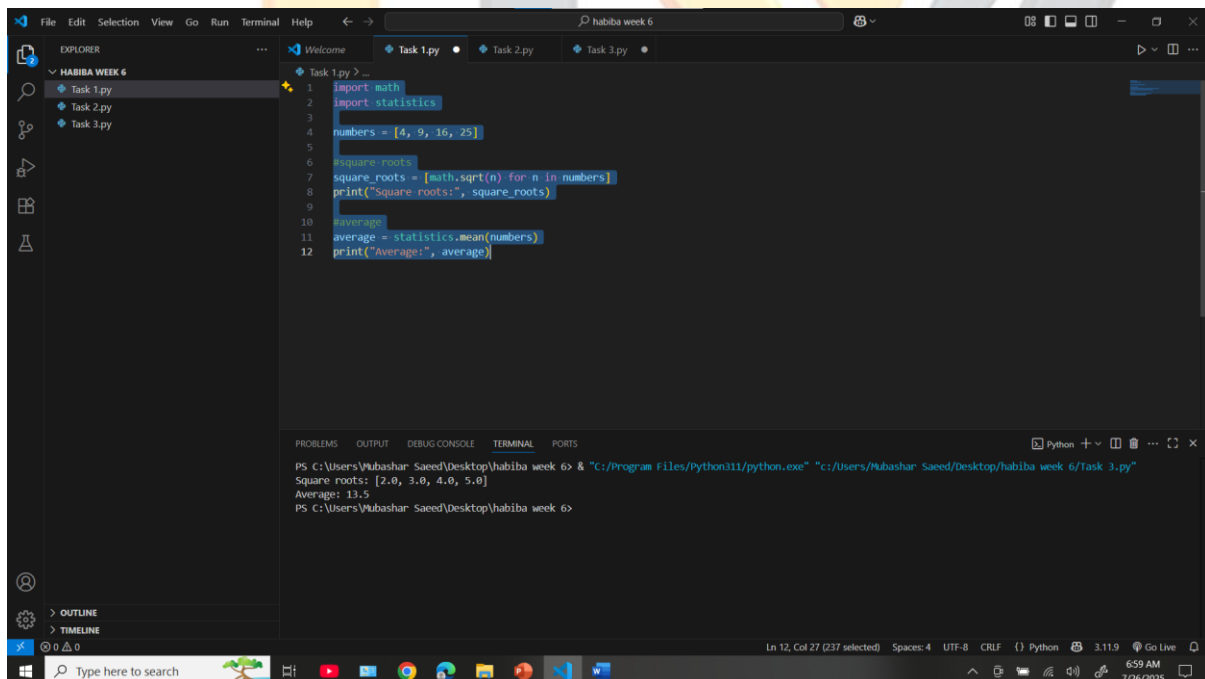
```
import math

import statistics

numbers = [4, 9, 16, 25]

#square roots
square_roots = [math.sqrt(n) for n in numbers]
print("Square roots:", square_roots)

#average
average = statistics.mean(numbers)
print("Average:", average)
```



The screenshot shows a Python IDE with a dark theme. The Explorer panel on the left shows a project named 'HABIBA WEEK 6' containing three files: 'Task 1.py', 'Task 2.py', and 'Task 3.py'. The main editor window displays the code from 'Task 1.py', which is the same code as shown in the previous block. The output panel at the bottom shows the execution results: 'Square roots: [2.0, 3.0, 4.0, 5.0]' and 'Average: 13.5'. The terminal panel shows the command used to run the script: 'PS C:\Users\Hushar Saeed\Desktop\habiba week 6> & "C:/Program Files/Python311/python.exe" "C:/Users/Hushar Saeed/Desktop/habiba week 6/Task 3.py"'. The status bar at the bottom indicates the current line and column (Ln 12, Col 27), the number of spaces (4), the encoding (UTF-8), the line ending (CRLF), the interpreter (Python), the version (3.11.9), and the time (6:59 AM, 7/26/2025).

```
1 import math
2 import statistics
3
4 numbers = [4, 9, 16, 25]
5
6 #square roots
7 square_roots = [math.sqrt(n) for n in numbers]
8 print("Square roots:", square_roots)
9
10 #average
11 average = statistics.mean(numbers)
12 print("Average:", average)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Python + Python 3.11.9 Go Live

PS C:\Users\Hushar Saeed\Desktop\habiba week 6> & "C:/Program Files/Python311/python.exe" "C:/Users/Hushar Saeed/Desktop/habiba week 6/Task 3.py"

Square roots: [2.0, 3.0, 4.0, 5.0]

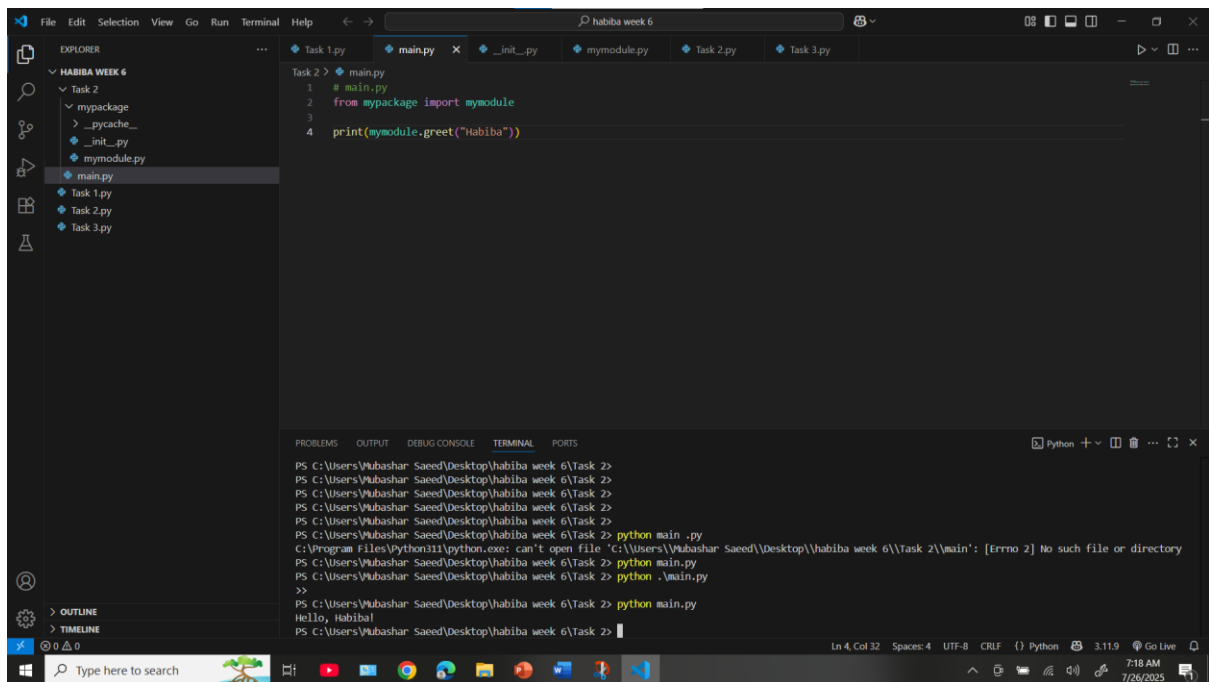
Average: 13.5

PS C:\Users\Hushar Saeed\Desktop\habiba week 6>

Ln 12, Col 27 (237 selected) Spaces: 4 UTF-8 CRLF () Python 3.11.9 6:59 AM 7/26/2025

Task 2 :

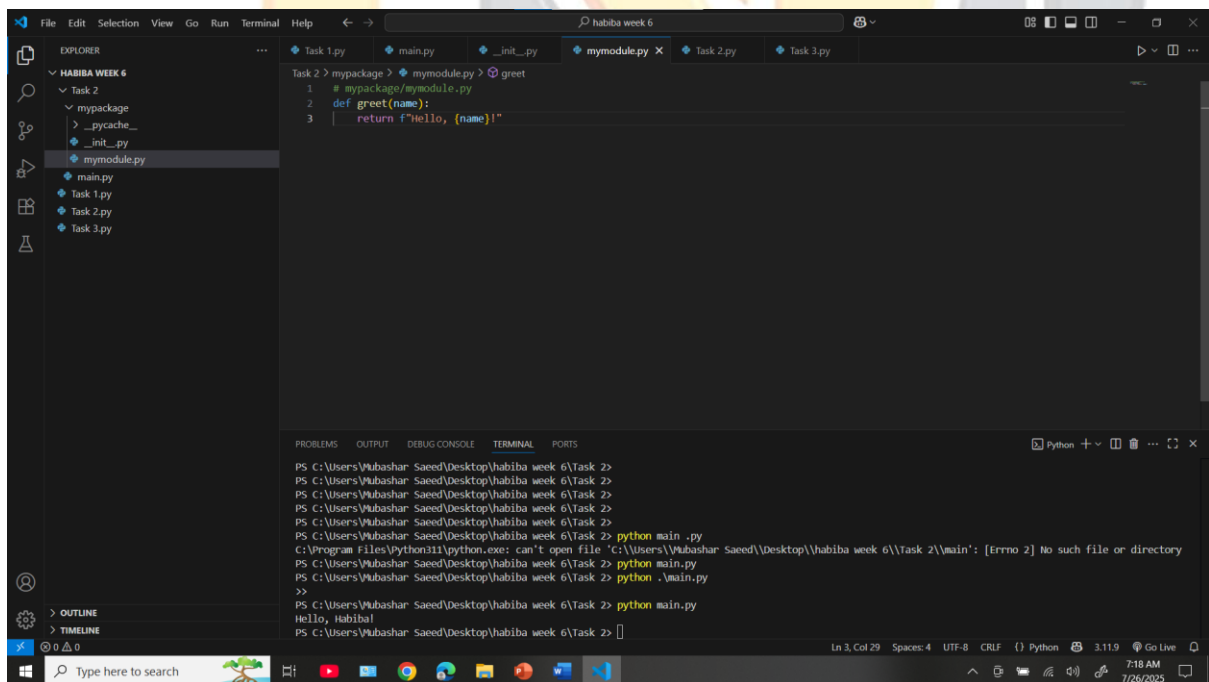
Solution :



The screenshot shows the Visual Studio Code editor with the Explorer pane on the left displaying the project structure for 'HABIBA WEEK 6'. The file explorer shows a folder 'Task 2' containing a subfolder 'mypackage' with files '__pycache__', '__init__.py', and 'mymodule.py'. The 'main.py' file is selected in the Explorer and is also open in the editor. The editor shows the following code in 'main.py':

```
1 # main.py
2 from mypackage import mymodule
3
4 print(mymodule.greet("Habiba"))
```

The Terminal pane at the bottom shows the execution of the script. The user runs 'python main.py' and the output is 'Hello, Habiba!'. The error messages in the terminal indicate that the file 'C:\Users\Yubashar Saeed\Desktop\habiba week 6\Task 2\main.py' was not found, which is likely due to the current working directory not being set correctly.



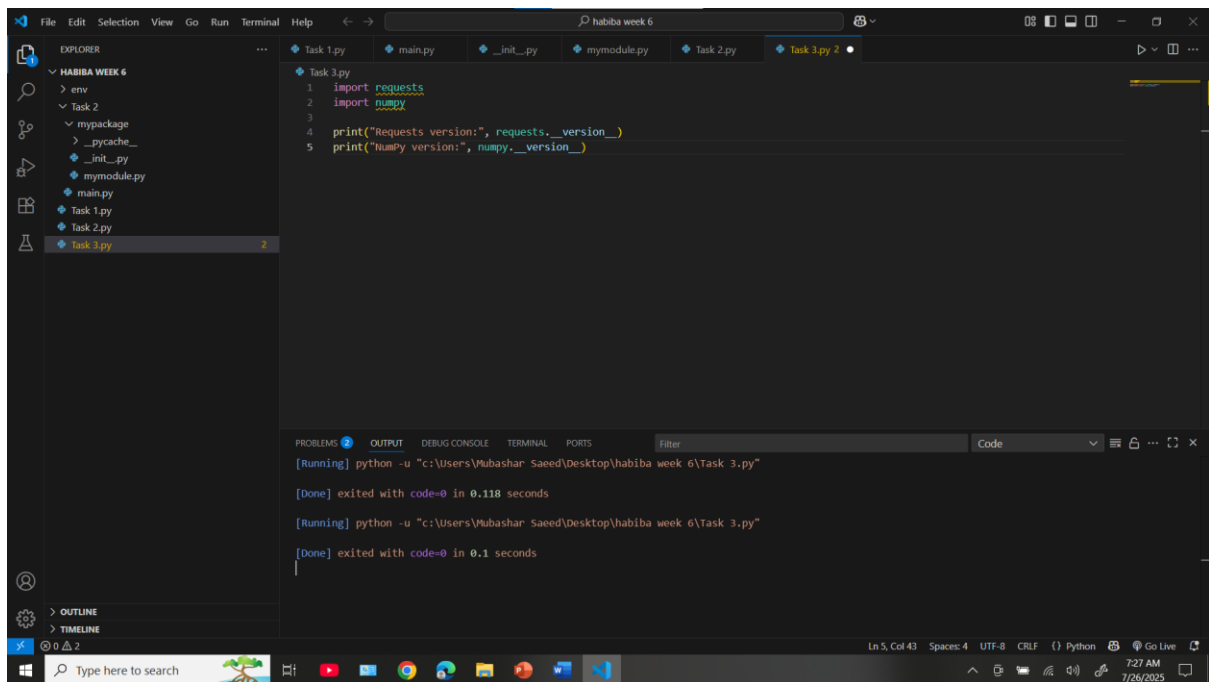
The screenshot shows the Visual Studio Code editor with the Explorer pane on the left displaying the project structure for 'HABIBA WEEK 6'. The file explorer shows a folder 'Task 2' containing a subfolder 'mypackage' with files '__pycache__', '__init__.py', and 'mymodule.py'. The 'mymodule.py' file is selected in the Explorer and is also open in the editor. The editor shows the following code in 'mymodule.py':

```
1 # mypackage/mymodule.py
2 def greet(name):
3     return f"Hello, {name}!"
```

The Terminal pane at the bottom shows the execution of the script. The user runs 'python main.py' and the output is 'Hello, Habiba!'. The error messages in the terminal indicate that the file 'C:\Users\Yubashar Saeed\Desktop\habiba week 6\Task 2\main.py' was not found, which is likely due to the current working directory not being set correctly.

Task 3 :

Solution :



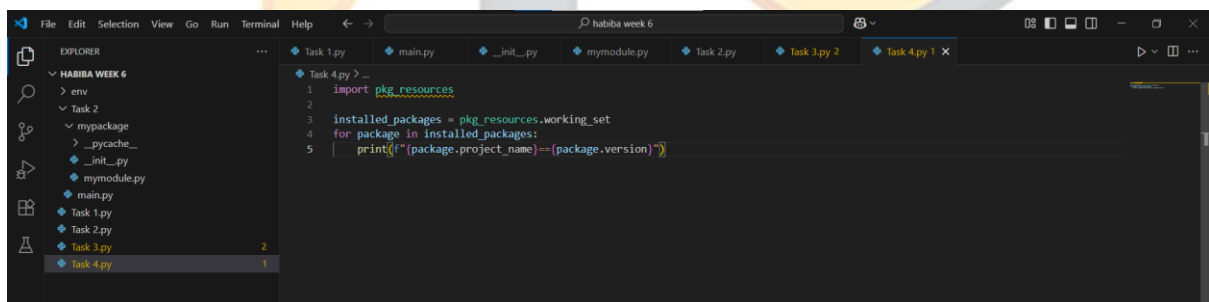
The screenshot shows the Visual Studio Code editor with a project named 'habiba week 6'. The Explorer sidebar on the left shows a file structure with folders 'env' and 'Task 2', and a file 'mypackage'. Inside 'mypackage', there are files 'Task 1.py', 'Task 2.py', and 'Task 3.py'. The 'Task 3.py' file is selected and its code is displayed in the editor. The code imports 'requests' and 'numpy' and prints their versions. The Output window at the bottom shows the execution of 'Task 3.py' using 'python -u' command, displaying the versions of 'requests' and 'numpy'.

```
1 import requests
2 import numpy
3
4 print("Requests version:", requests.__version__)
5 print("Numpy version:", numpy.__version__)
```

```
[Running] python -u "c:\Users\Mubashar Saeed\Desktop\habiba week 6\Task 3.py"
[Done] exited with code=0 in 0.118 seconds
[Running] python -u "c:\Users\Mubashar Saeed\Desktop\habiba week 6\Task 3.py"
[Done] exited with code=0 in 0.1 seconds
```

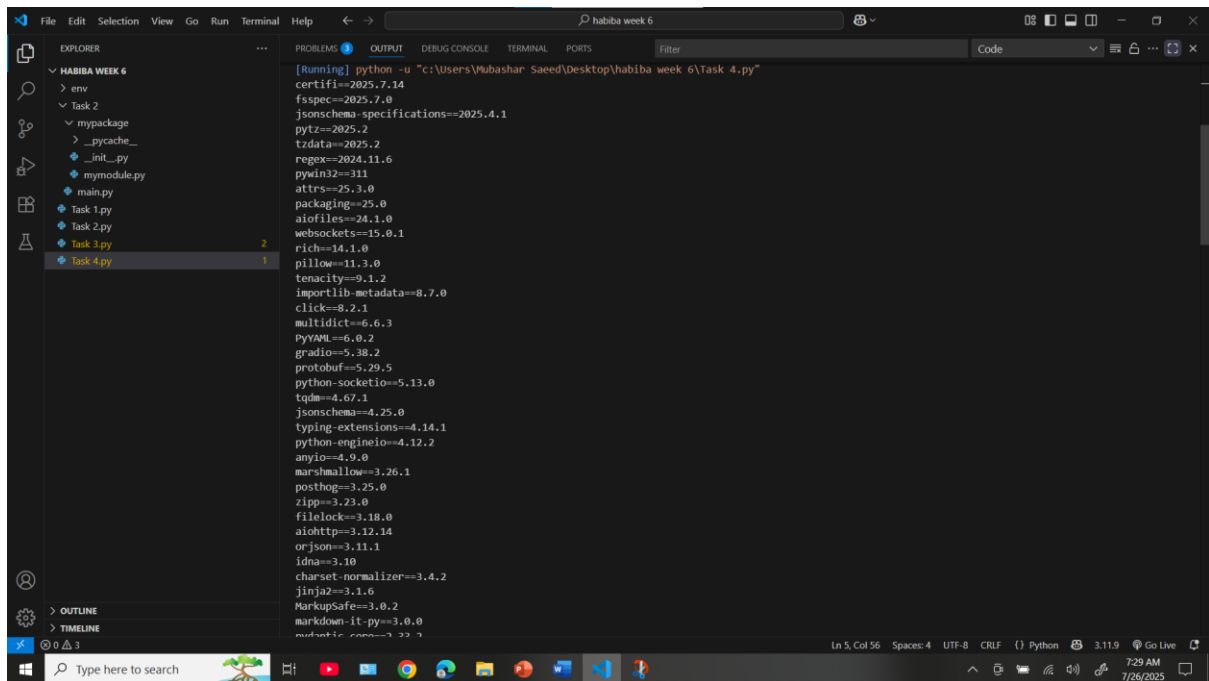
Task 4 :

Solution :



The screenshot shows the Visual Studio Code editor with the same project 'habiba week 6'. The Explorer sidebar shows the file structure, and 'Task 4.py' is selected. The code in 'Task 4.py' imports 'pkg_resources' and iterates through 'installed_packages' to print the project name and version of each package.

```
1 import pkg_resources
2
3 installed_packages = pkg_resources.working_set
4 for package in installed_packages:
5     print(f"{package.project_name}--{package.version}")
```

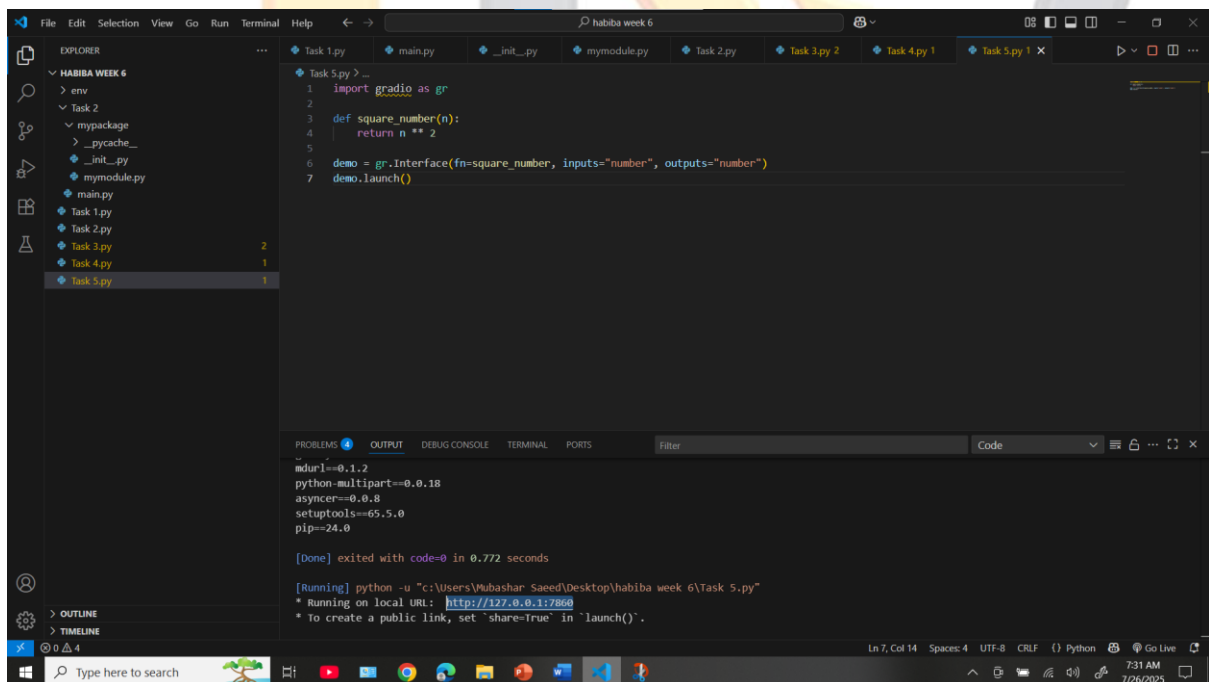


The screenshot shows the VS Code interface with the 'Output' window displaying a list of installed Python packages. The Explorer sidebar on the left shows a project structure for 'HABIBA WEEK 6' with files like 'env', 'Task 2', 'mypackage', and 'Task 4.py'. The Output window lists the following packages and their versions:

```
[Running] python -u "c:\Users\Mubashar Saeed\Desktop\habiba week 6\Task 4.py"
certifi==2025.7.14
cffi==2025.7.0
cssselect==2025.4.1
pytz==2025.2
tzdata==2025.2
regex==2024.11.6
pywin32==311
attrs==25.3.0
packaging==25.0
aiofiles==24.1.0
websockets==15.0.1
rich==14.1.0
pillow==11.3.0
tenacity==9.1.2
importlib-metadata==8.7.0
click==8.2.1
multidict==6.6.3
PyYAML==6.0.2
gradio==5.38.2
protobuf==5.29.5
python-socketio==5.13.0
tqdm==4.67.1
jsonschema==4.25.0
typing-extensions==4.14.1
python-engineio==4.12.2
anyio==4.9.0
marshmallow==3.26.1
posthog==3.25.0
zipp==3.23.0
filelock==3.18.0
aiohttp==3.12.14
orjson==3.11.1
idna==3.10
charset-normalizer==3.4.2
jinja2==3.1.6
MarkupSafe==3.0.2
markdown-it-py==3.0.0
mistune==3.2.3
```

Task 5 :

Solution :



The screenshot shows the VS Code interface with the 'Task 5.py' file open in the editor. The Explorer sidebar on the left shows the project structure for 'HABIBA WEEK 6' with files like 'env', 'Task 2', 'mypackage', and 'Task 5.py'. The Output window displays the execution output for 'Task 5.py'.

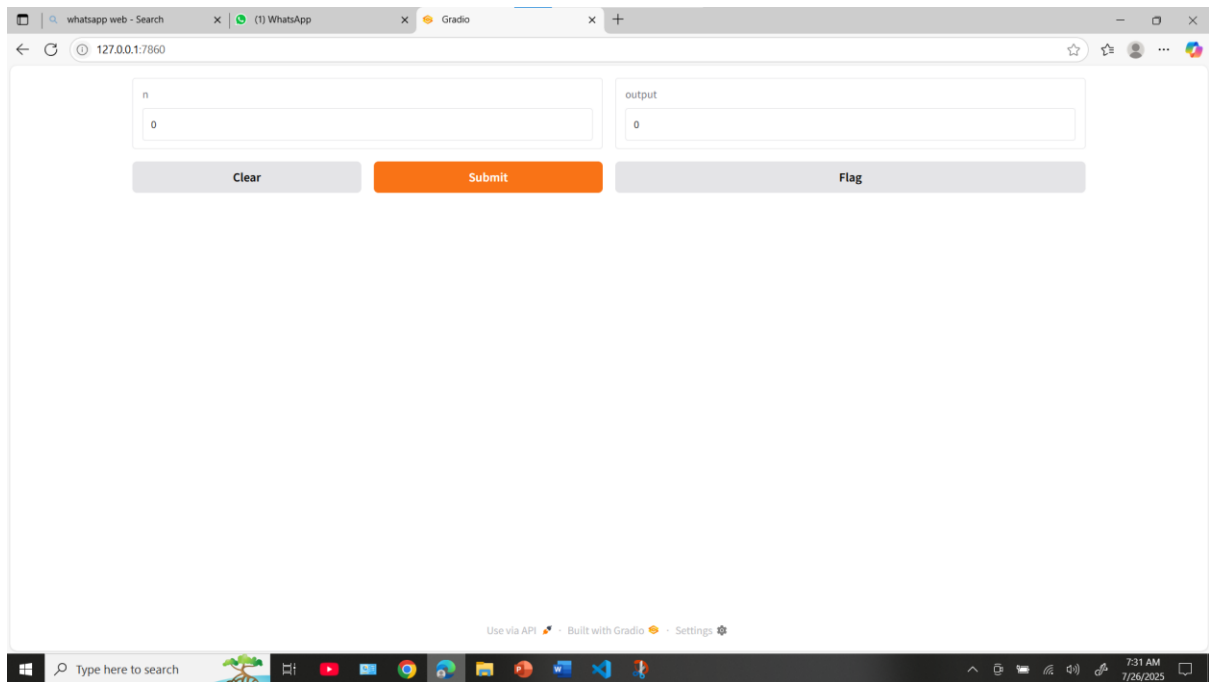
```
Task 5.py > ...
1 import gradio as gr
2
3 def square_number(n):
4     return n ** 2
5
6 demo = gr.Interface(fn=square_number, inputs="number", outputs="number")
7 demo.launch()

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter
Code

mdurl==0.1.2
python-multipart==0.0.18
asynccore==0.0.8
setuptools==65.5.0
pip==24.0

[Done] exited with code=0 in 0.772 seconds

[Running] python -u "c:\Users\Mubashar Saeed\Desktop\habiba week 6\Task 5.py"
* Running on local URL: http://127.0.0.1:7860
* To create a public link, set 'share=True' in 'launch()'.
```



Task 6 :

Solution :

