**VU22CSEN0101186**

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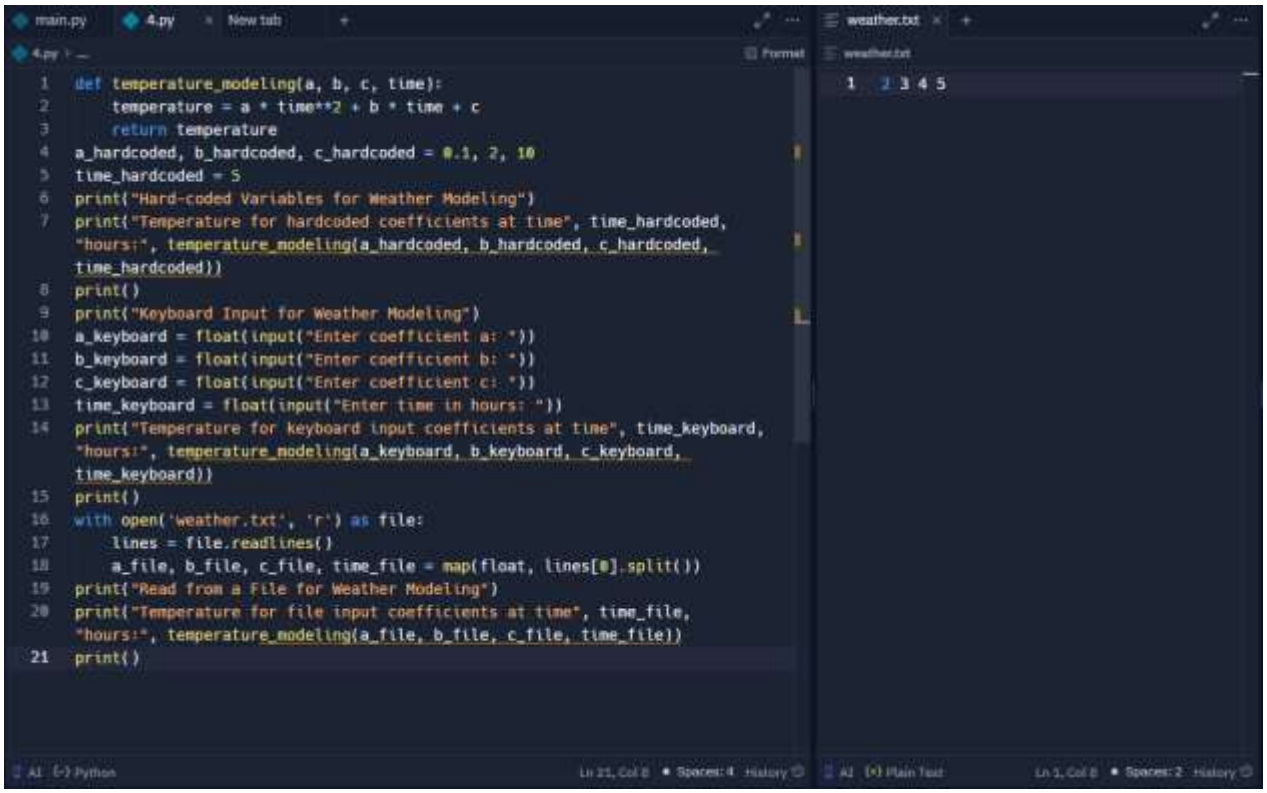
# SOFTWARE ENGINERING LAB

# TASK-1

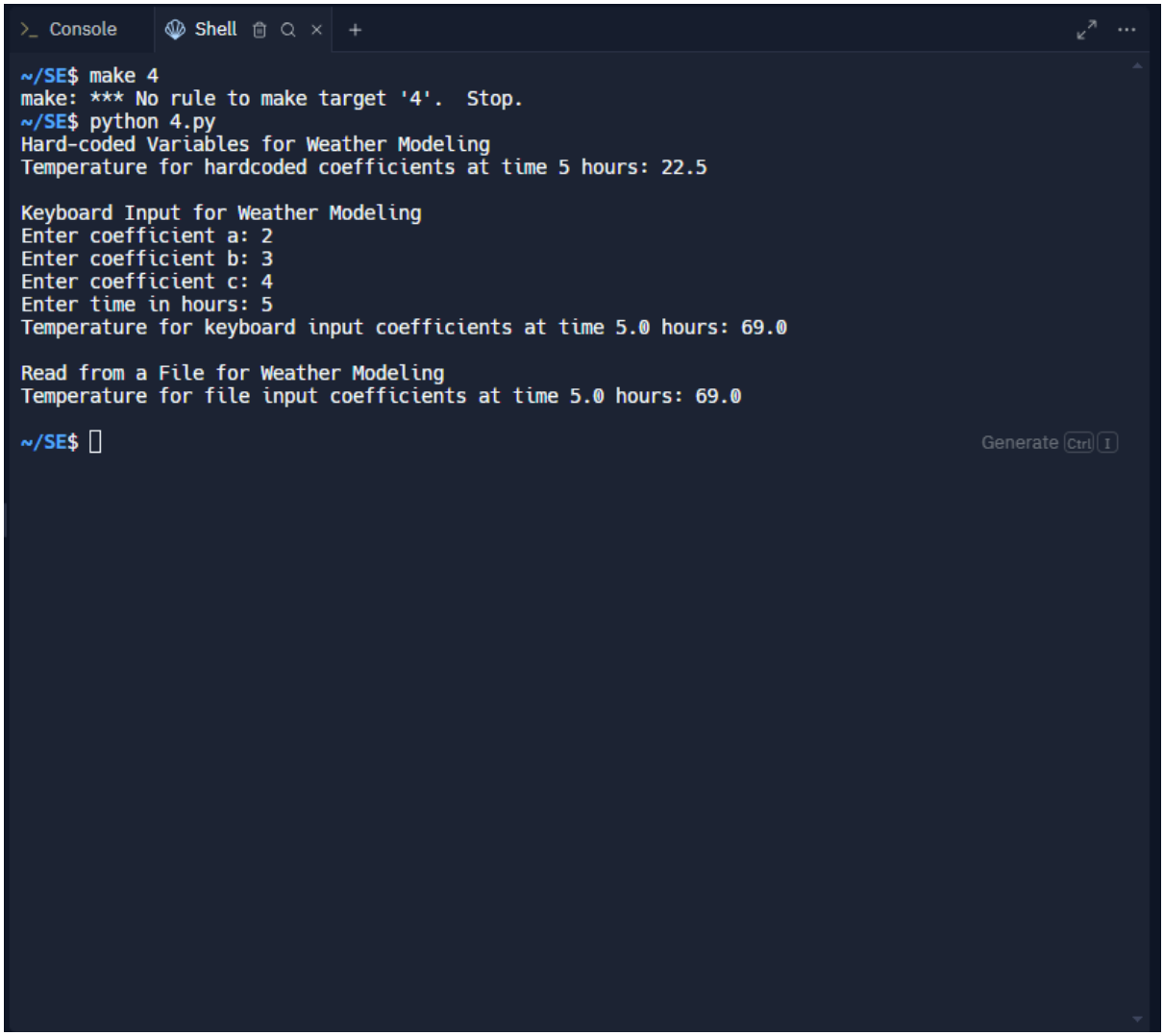
CODE:



```python
def temperature_modeling(a, b, c, time):
    temperature = a * time**2 + b * time + c
    return temperature
a_hardcoded, b_hardcoded, c_hardcoded = 0.1, 2, 10
time_hardcoded = 5
print("Hard-coded Variables for Weather Modeling")
print("Temperature for hardcoded coefficients at time", time_hardcoded,
"hours:", temperature_modeling(a_hardcoded, b_hardcoded, c_hardcoded,
time_hardcoded))
print()
print("Keyboard Input for Weather Modeling")
a_keyboard = float(input("Enter coefficient a: "))
b_keyboard = float(input("Enter coefficient b: "))
c_keyboard = float(input("Enter coefficient c: "))
time_keyboard = float(input("Enter time in hours: "))
print("Temperature for keyboard input coefficients at time", time_keyboard,
"hours:", temperature_modeling(a_keyboard, b_keyboard, c_keyboard,
time_keyboard))
print()
with open('weather.txt', 'r') as file:
    lines = file.readlines()
    a_file, b_file, c_file, time_file = map(float, lines[0].split())
print("Read from a File for Weather Modeling")
print("Temperature for file input coefficients at time", time_file,
"hours:", temperature_modeling(a_file, b_file, c_file, time_file))
print()
```

```
1 2 3 4 5
```

OUTPUT:


Console
Shell
~/SE$ make 4
make: *** No rule to make target '4'. Stop.
~/SE$ python 4.py
Hard-coded Variables for Weather Modeling
Temperature for hardcoded coefficients at time 5 hours: 22.5
Keyboard Input for Weather Modeling
Enter coefficient a: 2
Enter coefficient b: 3
Enter coefficient c: 4
Enter time in hours: 5
Temperature for keyboard input coefficients at time 5.0 hours: 69.0
Read from a File for Weather Modeling
Temperature for file input coefficients at time 5.0 hours: 69.0
~/SE$
Generate Ctrl I