Comsats University Islamabad, Lahore campus

PRACTISE QUESTIONS

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Section: BBA- B

Roll no: FA24-BBA-050

Course: Programming Language for Business Analytics

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1. Store your name and print it

```
name = "sadia ejaz"
print (name)
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
sadia ejaz
PS C:\Users\user>
```

2. Store two numbers and print their sum

```
a = 10
b = 6
print("sum:", a+b)
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
sum: 16
PS C:\Users\user>
```

3. Integer and float data types

```
x = 7
y = 3.5
print(type(x))
print(type(y))
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
<class 'int'>
<class 'float'>
PS C:\Users\user>
```

4. String length

```
message = "Hello, Python"
print(len(message))
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
13
PS C:\Users\user>
```

5. Square of a number

6. Input and show data type

7. Boolean check

8. f-string formatting

9. Convert integer to float


```python
x = 10
x = float(x)
print(x)
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
10.0
PS C:\Users\user>
```

10. Complex number


```python
z = 3 + 4j
print("Real:", z.real)
print("Imaginary:", z.imag)
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Real: 3.0
Imaginary: 4.0
PS C:\Users\user>
```

11. Basic arithmetic

```
Welcome          sadia exercise 1.py  ×

C: > Users > user >  sadia exercise 1.py > ...
   1    a = 10
   2    b = 3
   3    print(a + b, a - b, a * b, a / b)
   4    |
   5

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
13 7 30 3.3333333333333335
PS C:\Users\user>
```

12. Floor division

```
Welcome   ×      sadia exercise 1.py  ×

C: > Users > user >  sadia exercise 1.py
   1    print(8 // 2)
   2

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
4
PS C:\Users\user>
```

13. Modulus

```
Welcome          sadia exercise 1.py  ×

C: > Users > user >  sadia exercise 1.py
   1    print(6 % 4)
   2

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
2
PS C:\Users\user>
```
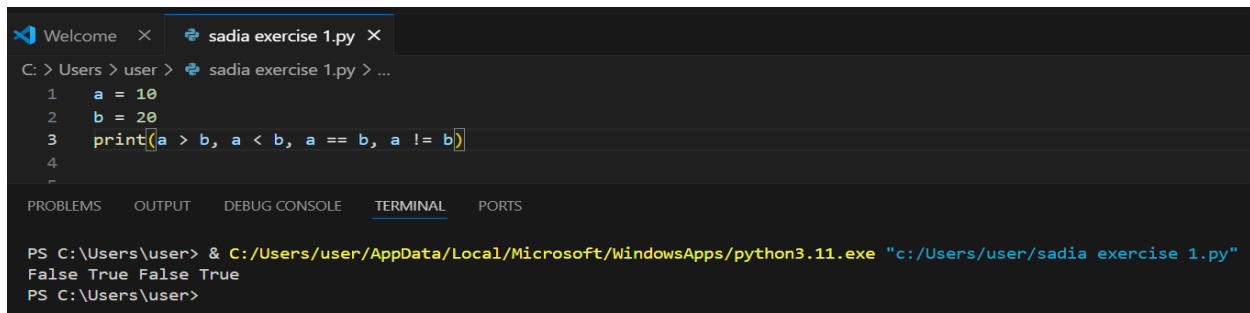
14. Exponentiation

```
C: > Users > user >  sadia exercise 1.py
   1    print(2 ** 5)
   2

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
32
PS C:\Users\user>
```
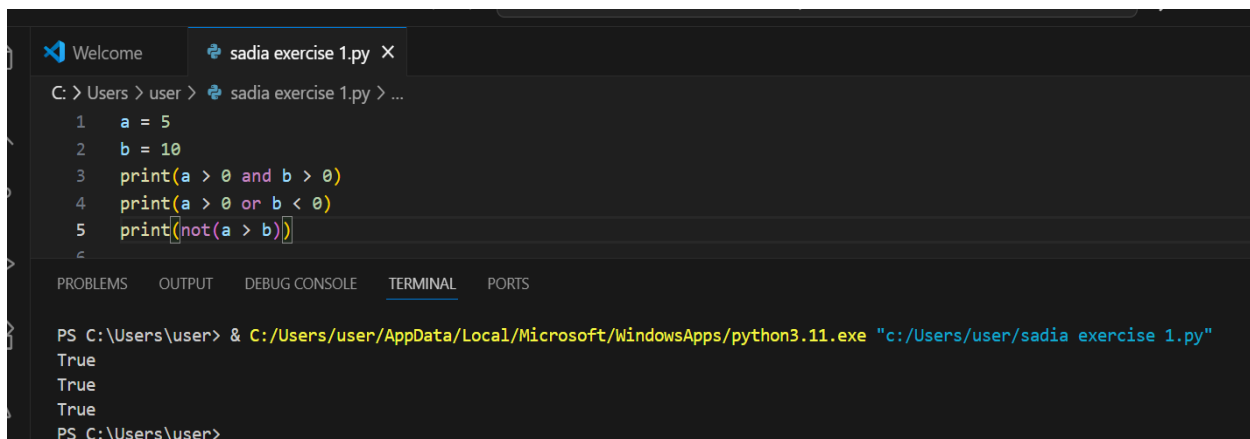
15. Comparison operators


```python
a = 10
b = 20
print(a > b, a < b, a == b, a != b)
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
False True False True
PS C:\Users\user>
```
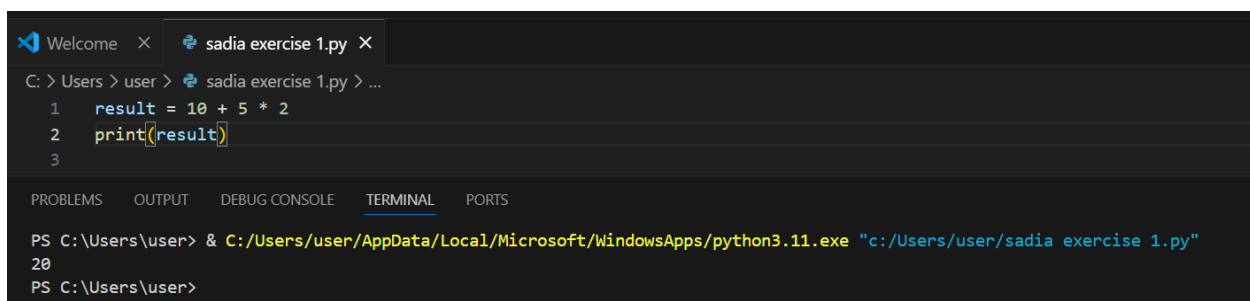
16. Logical operators


```python
a = 5
b = 10
print(a > 0 and b > 0)
print(a > 0 or b < 0)
print(not(a > b))
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
True
True
True
PS C:\Users\user>
```
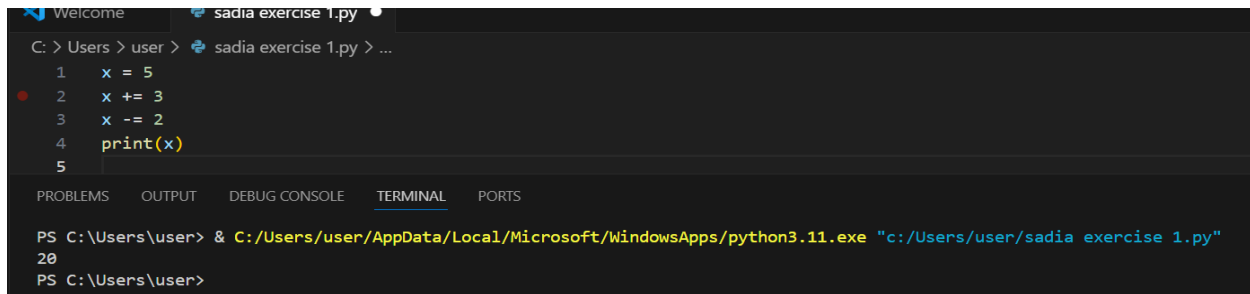
17. Operator precedence


```python
result = 10 + 5 * 2
print(result)
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
20
PS C:\Users\user>
```
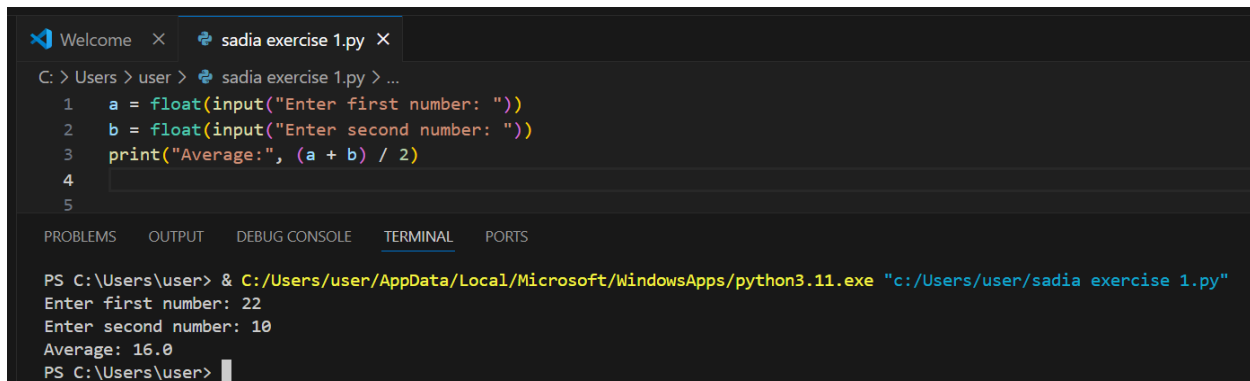
18. Compound assignment

```
C: > Users > user > sadia exercise 1.py > ...
1    x = 5
2    x += 3
3    x -= 2
4    print(x)
5
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
20
PS C:\Users\user>
```
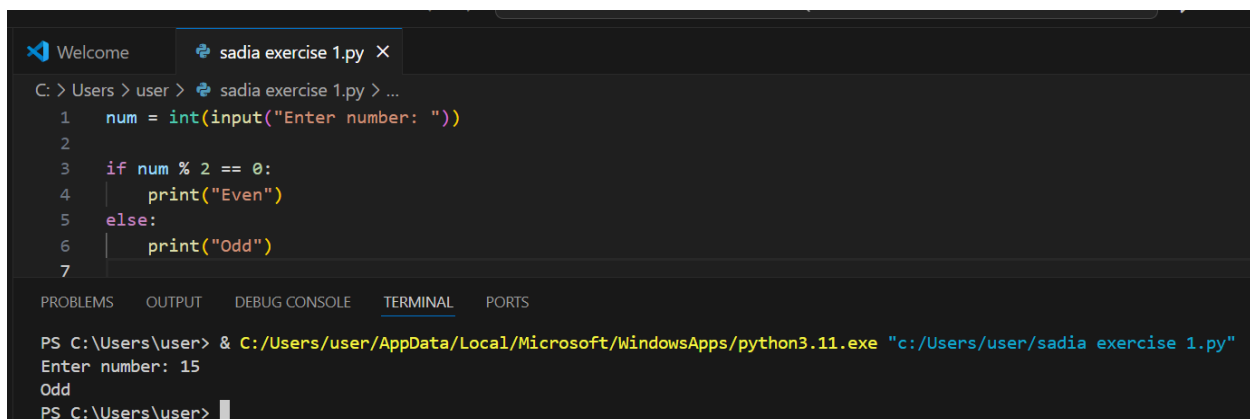
19. Average of two numbers

```
C: > Users > user > sadia exercise 1.py > ...
1    a = float(input("Enter first number: "))
2    b = float(input("Enter second number: "))
3    print("Average:", (a + b) / 2)
4
5
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter first number: 22
Enter second number: 10
Average: 16.0
PS C:\Users\user>
```

20. Even or odd (ternary operator)

```
C: > Users > user > sadia exercise 1.py > ...
1    num = int(input("Enter number: "))
2
3    if num % 2 == 0:
4        print("Even")
5    else:
6        print("Odd")
7
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter number: 15
Odd
PS C:\Users\user>
```

21. Positive, negative, or zero

```
Welcome          🐍 sadia exercise 1.py ✕

C: > Users > user > 🐍 sadia exercise 1.py > ...
    1    num = int(input("Enter number: "))
    2    if num > 0:
    3        print("Positive")
    4    elif num < 0:
    5        print("Negative")
    6    else:
    7        print("Zero")

PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter number: 12
Positive
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter number: 11
Positive
PS C:\Users\user>
```
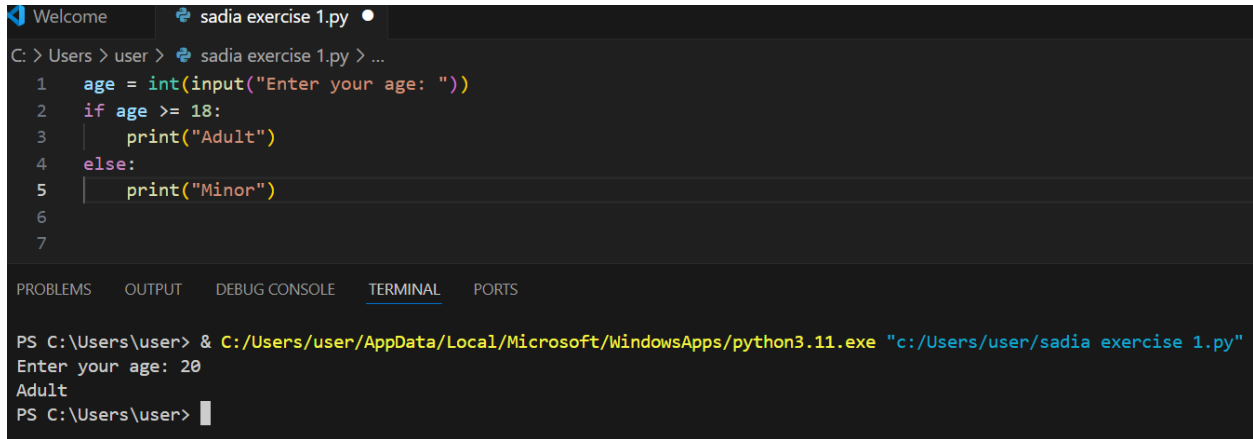
22. Even or odd (if-else)

```
Welcome          🐍 sadia exercise 1.py ●

C: > Users > user > 🐍 sadia exercise 1.py > ...
    1    num = int(input("Enter number: "))
    2    if num % 2 == 0:
    3        print("Even")
    4    else:
    5        print("Odd")
    6
    7

PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter number: 18
Even
PS C:\Users\user>
```
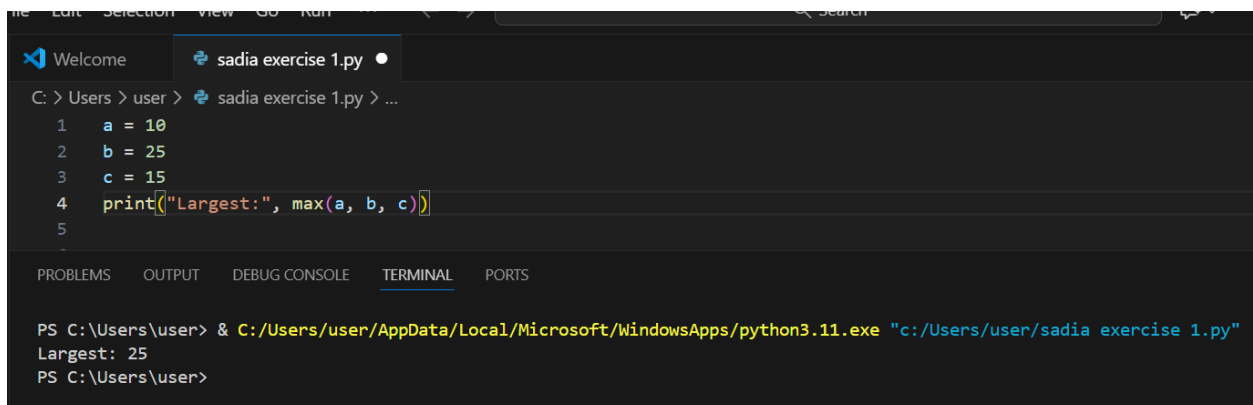
23. Adult or minor

```
age = int(input("Enter your age: "))
if age >= 18:
    print("Adult")
else:
    print("Minor")
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter your age: 20
Adult
PS C:\Users\user>
```
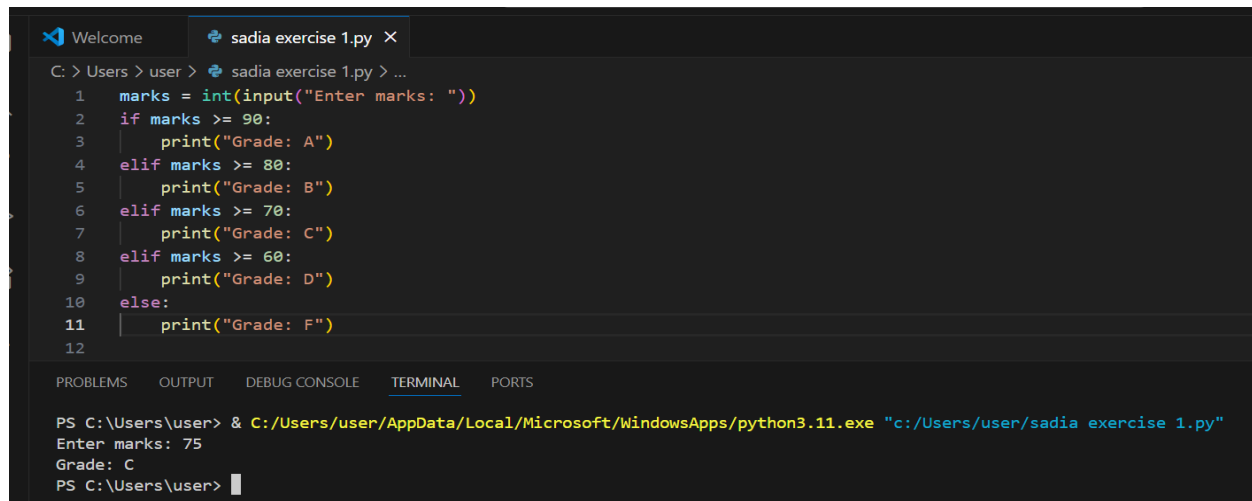
24. Largest of three numbers

```
a = 10
b = 25
c = 15
print("Largest:", max(a, b, c))
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Largest: 25
PS C:\Users\user>
```
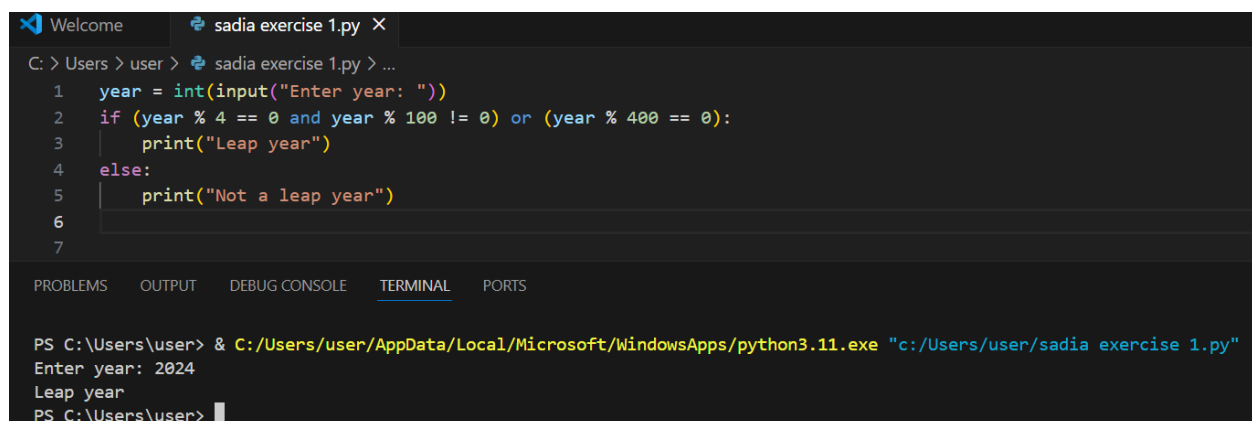
25. Grade system

```python
marks = int(input("Enter marks: "))
if marks >= 90:
    print("Grade: A")
elif marks >= 80:
    print("Grade: B")
elif marks >= 70:
    print("Grade: C")
elif marks >= 60:
    print("Grade: D")
else:
    print("Grade: F")
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter marks: 75
Grade: C
PS C:\Users\user>
```
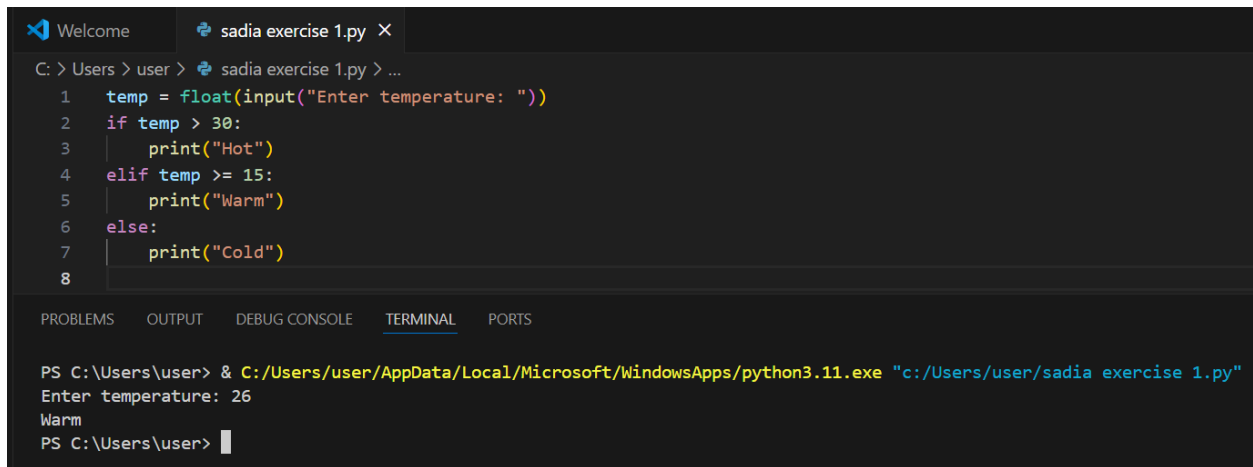
26. Leap year

```python
year = int(input("Enter year: "))
if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print("Leap year")
else:
    print("Not a leap year")
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter year: 2024
Leap year
PS C:\Users\user>
```
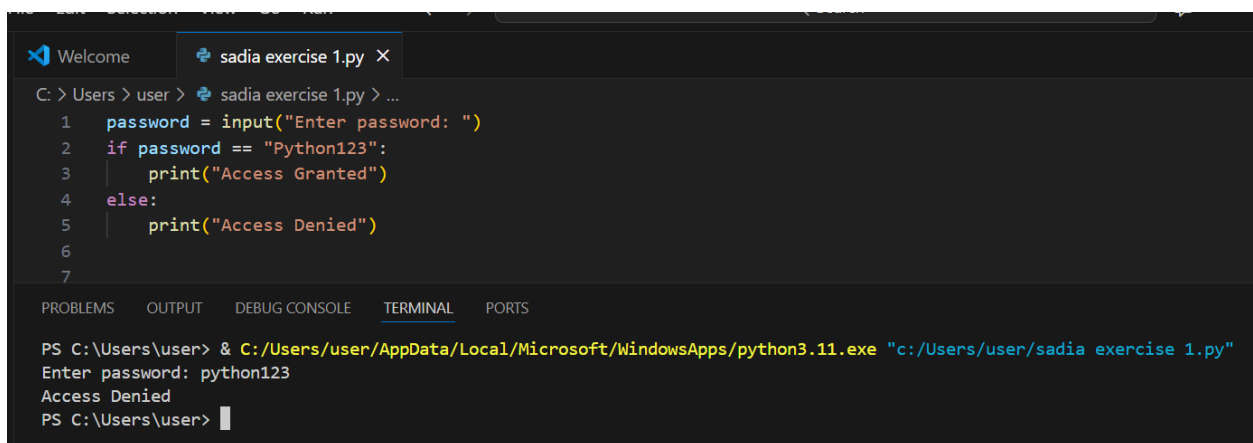
27. Temperature condition

```
temp = float(input("Enter temperature: "))
if temp > 30:
    print("Hot")
elif temp >= 15:
    print("Warm")
else:
    print("Cold")
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter temperature: 26
Warm
PS C:\Users\user>
```
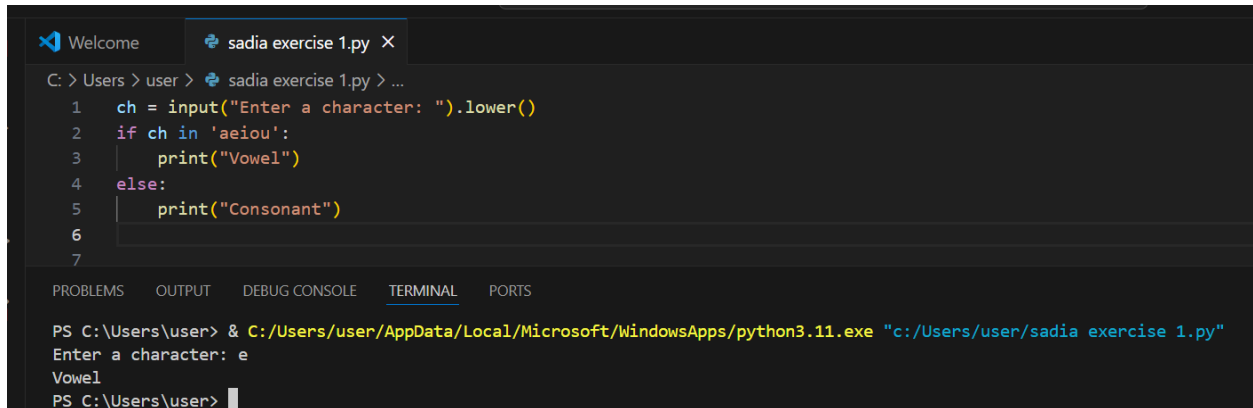
28. Password check

```
password = input("Enter password: ")
if password == "Python123":
    print("Access Granted")
else:
    print("Access Denied")
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter password: python123
Access Denied
PS C:\Users\user>
```
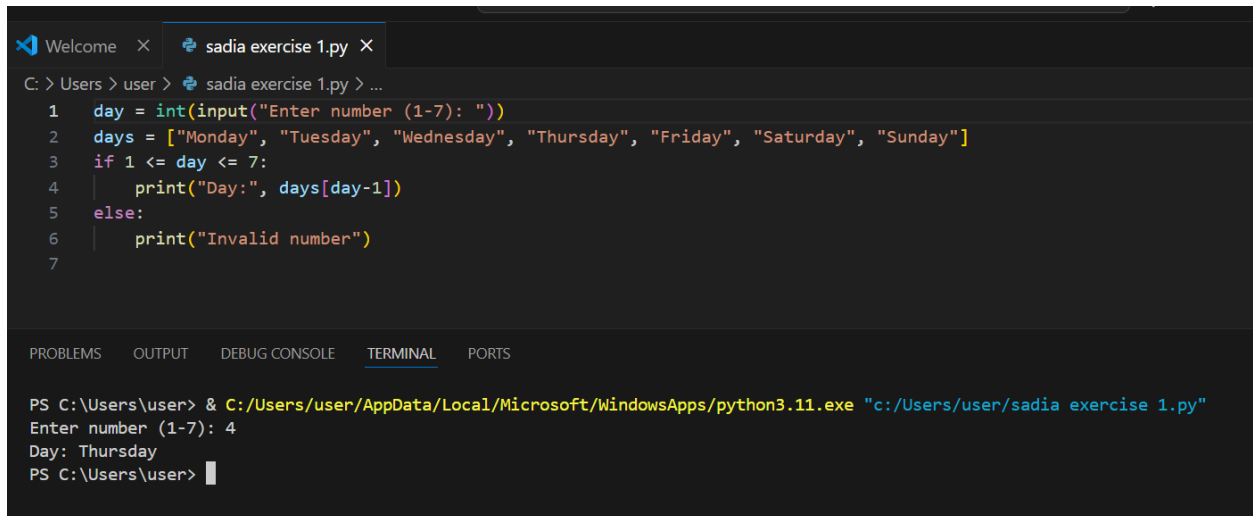
29. Vowel or consonant

```python
ch = input("Enter a character: ").lower()
if ch in 'aeiou':
    print("Vowel")
else:
    print("Consonant")
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter a character: e
Vowel
PS C:\Users\user>
```

30. Day of the week

```python
day = int(input("Enter number (1-7): "))
days = ["Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"]
if 1 <= day <= 7:
    print("Day:", days[day-1])
else:
    print("Invalid number")
```

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
Enter number (1-7): 4
Day: Thursday
PS C:\Users\user>
```

31–40: List exercises

```python
fruits = ["apple", "banana", "cherry"]
print(fruits)

fruits.append("orange")
fruits.remove("banana")
print(fruits)

numbers = [1, 2, 3, 4, 5]
print(sum(numbers))
print("Max:", max(numbers))
print("Min:", min(numbers))

print(numbers[:3])
print(numbers[-3:])

numbers[2] = 10
print(numbers)

numbers.reverse()
print(numbers)

print(numbers.count(10))

list1 = [1, 2, 3]
list2 = [4, 5]
print(list1 + list2)

squares = [x ** 2 for x in range(1, 11)]
print(squares)
```

(31-40) Output

```
PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
['apple', 'banana', 'cherry']
['apple', 'cherry', 'orange']
15
Max: 5
Min: 1
[1, 2, 3]
[3, 4, 5]
[1, 2, 10, 4, 5]
[5, 4, 10, 2, 1]
1
[1, 2, 3, 4, 5]
[1, 4, 9, 16, 25, 36, 49, 64, 81, 100]
PS C:\Users\user>
```

41–45: Tuple exercises

```python
t = (10, 20, 30, 20)
print(t)

a, b, c, d = t
print(a, b, c, d)

print(t.index(20))
print(t.count(20))

temp = list(t)
temp[1] = 99
t = tuple(temp)
print(t)

t1 = (1, 2)
t2 = (3, 4)
print(t1 + t2)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

PS C:\Users\user> & C:/Users/user/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/Users/user/sadia exercise 1.py"
(10, 20, 30, 20)
10 20 30 20
1
2
(10, 99, 30, 20)
(1, 2, 3, 4)
PS C:\Users\user>