Task 1 :Write a program that takes your name and age as input and prints a greeting like:

"Hello John , you are 20 year old"

Algorithm:

1. Start the program

2. Ask the user to enter their name

3. Stores the entered name

4. Ask the user to enter their age

5. Stores the entered age

6. Combine the name and age using a string concatenation to make a sentence

Pseudo code

Start

Display "enter a name"

Read

Display "enter a age"

Read

Set message = "Hello " + name + ", you are " + age +" years old."

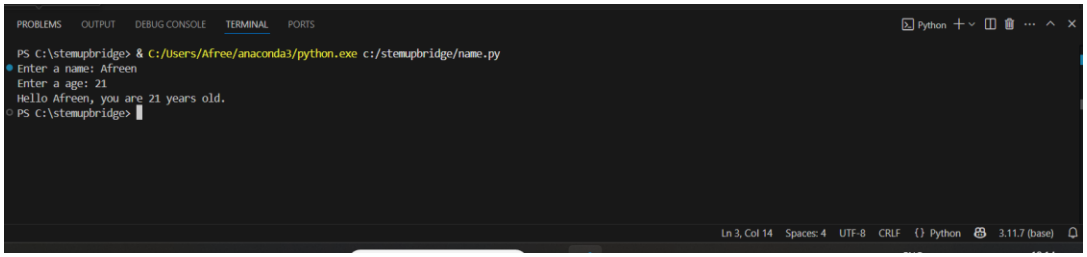
Display message

End

Code:

```
name = input("Enter a name: ")
age = input("Enter a age: ")
print("Hello " + name + ", you are " + age +" years old.")
```

Output



Task 2: Type Conversion Challenge

Take 2 numbers as input(strings), convert them to integers and print their sum difference and product.

Algorithm:

1. Start
2. Take input n1 and n2 as string
3. Convert n1 to integer and store in x and as follows n2 to y
4. Add x and y, store result in add
5. Subtract y from x, store result in sub
6. Multiply x and y, store result in mul
7. Print "Sum" with add
8. Print "Differences" with sub
9. Print "Multiplication" with mul
10. End

Pseudocode:

START

INPUT n1

INPUT n2

x ← CONVERT n1 TO INTEGER

y ← CONVERT n2 TO INTEGER

add ← x + y

sub ← x - y

mul ← x * y

PRINT "Sum" + add

PRINT "Differences" + sub

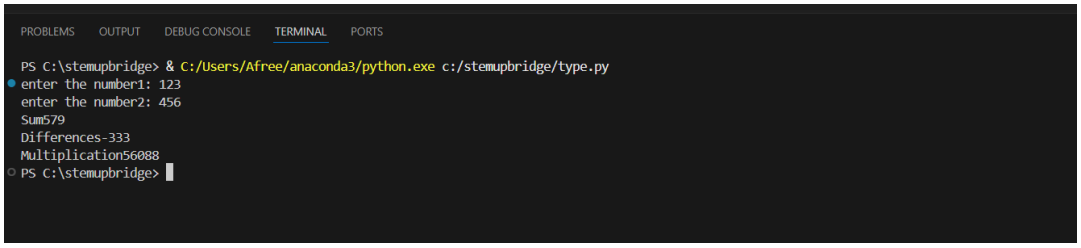
PRINT "Multiplication" + mul

END

Code:

```
n1 = input("enter the number1: ")
n2 = input("enter the number2: ")
x = int(n1)
y = int(n2)
add = x + y
sub = x - y
mul = x * y
print("Sum" + str(add))
print("Differences"  + str(sub))
print("Multiplication"  + str(mul))
```

Output:



Task 3: Data type classification

Identify the data type of the following inputs in your language of choice :

Algorithm:

1. Start
2. Create or use values: "123", 123, 123.45, True, "Hello"
3. Use the type() function to find the data type of each value
4. Print the result for each
5. End

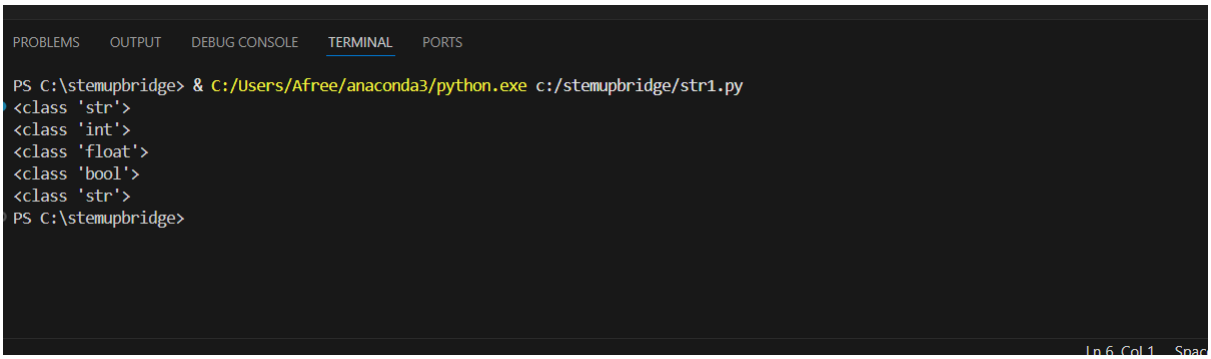
Pseudocode:

```
START
  SET value1 = "123"
  SET value2 = 123
  SET value3 = 123.45
  SET value4 = True
  SET value5 = "Hello"
  PRINT type of value1
  PRINT type of value2
  PRINT type of value3
  PRINT type of value4
  PRINT type of value5
END
```

Code:

```
print(type("123"))

print(type(123))

print(type(123.45))

print(type(True))

print(type("Hello"))
```

Output



Task 4: Temperature converter

Write a program that converts Celsius to Fahrenheit using variable and formula

Algorithm:

1. Start
2. Input temperature in Celsius
3. Apply formula: Fahrenheit = (Celsius × 9/5) + 32
4. Display Fahrenheit value
5. End

Pseudo code:

START

INPUT celsius

fahrenheit ← (celsius × 9 / 5) + 32

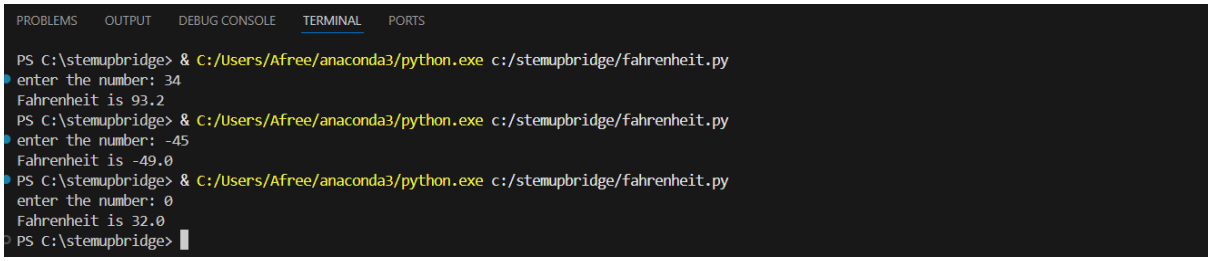
PRINT "Temperature in Fahrenheit: ", fahrenheit

END

Code:

```
c = int(input("enter the number: "))
f = (c * 9/5) + 32
print("Fahrenheit is " + str(f))
```

Output



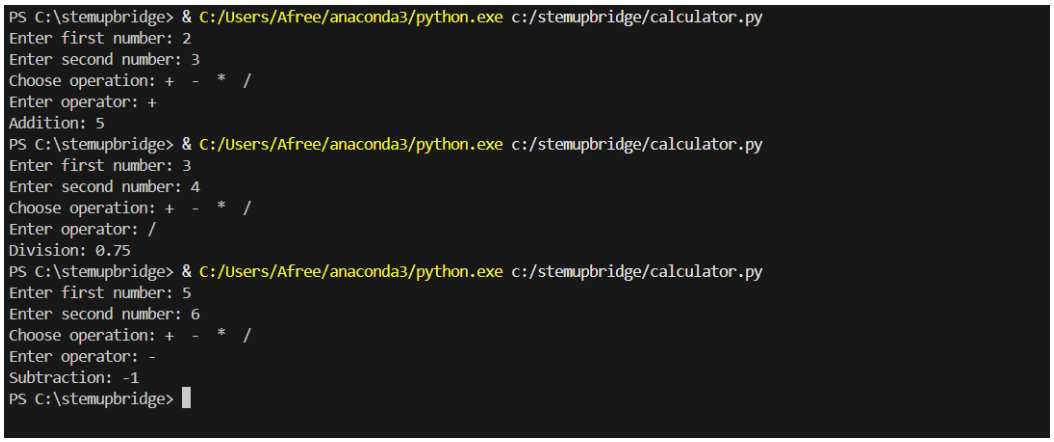
Task 5 :Simple calculator

Create a basic calculator that performs +,-,*, and / between two user provided numbers.

Algorithm:

```
n1 = int(input("Enter first number: "))
n2 = int(input("Enter second number: "))
print("Choose operation: +  -  *  /")
op = input("Enter operator: ")
match op:
    case '+':
        print("Addition: " + str(n1 + n2))
    case '-':
        print("Subtraction: " + str(n1 - n2))
    case '*':
        print("Multiplication: " + str(n1 * n2))
    case '/':
        if n2 != 0:
            print("Division: " + str(n1 / n2))
        else:
            print("Cannot divide by zero.")
```

Output:

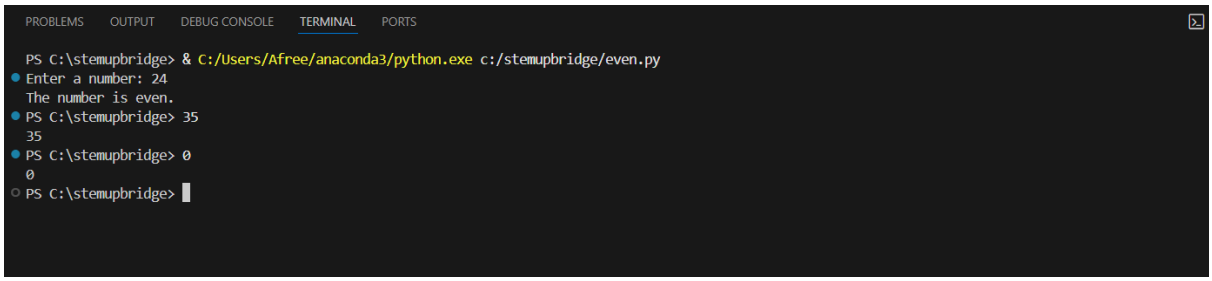


Task 6: Even Or odd

Code:

```
n = int(input("Enter a number: "))
if n % 2 == 0:
    print("The number is even.")
else:
    print("The number is odd.")
```

Output:

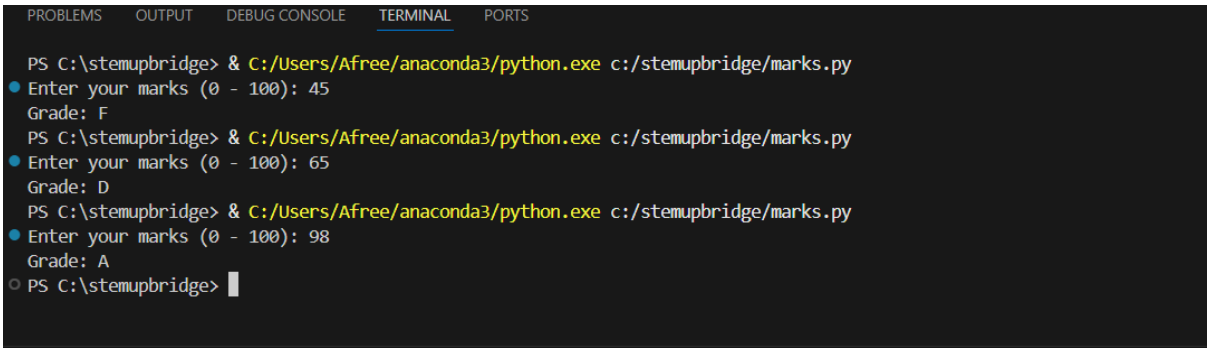


Task 7: Grade Calculator

Code:

```
marks = int(input("Enter your marks (0 - 100): "))
if marks > 100 or marks < 0:
    print("Invalid marks entered.")
elif marks >= 90 and marks <= 100:
    print("Grade: A")
elif marks >= 80:
    print("Grade: B")
elif marks >= 70:
    print("Grade: C")
elif marks >= 60:
    print("Grade: D")
elif marks < 60:
    print("Grade: F")
```

Output:

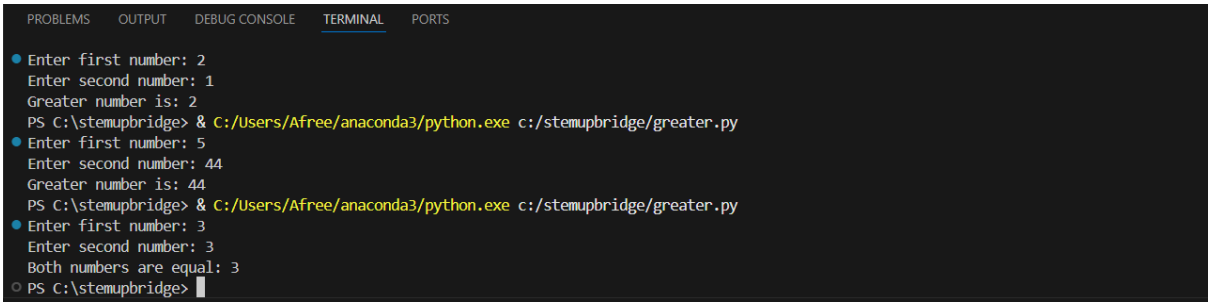


Task 8:Number comparison

Code:

```
n1= int(input("Enter first number: "))
n2 = int(input("Enter second number: "))
if n1 > n2:
    print("Greater number is: " + str(n1))
elif n2 > n1:
    print("Greater number is: " + str(n2))
else:
    print("Both numbers are equal: " + str(n1))
```

Output:



Task 9 : Countdown Timmer

Code:

```
import time
count = 10
while count >= 1:
    print(count)
    time.sleep(1)
    count -= 1
```

Output:

Task 10 : Multiplication Table Generator

Code:

```
n = int(input("Enter a number: "))
print("Multiplication Table of", n)
for i in range(1, 11):
    print(str(n) + " x " + str(i) + " = " + str(n * i))
```

Output: