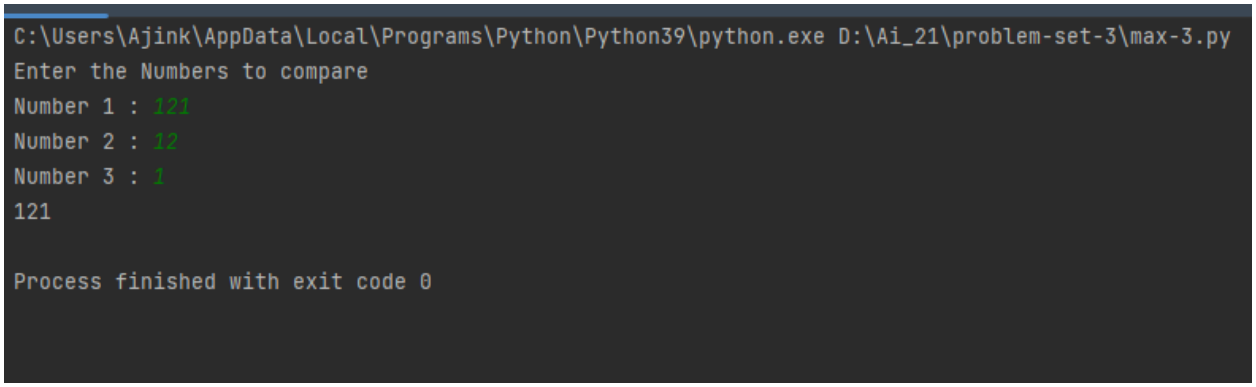
1) Write a Python function to find the Max of three numbers.

```
print("Enter the Numbers to compare")

a= int(input("Number 1 : "))

b= int(input("Number 2 : "))

c= int(input("Number 3 : "))


if a > b and a > c:
   print(a)
elif b > c:
   print(b)

else:
   print(c)
```

Output :



2) Write a Python program to reverse a string.

Sample String : "1234abcd"

Expected Output : "dcba4321"

```
str = input("Enter String : ")
```

```
print("Provide String : ",str)
print("reversed string : ",str[::-1])
```

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\rev.py
Enter String : Ajink
Provide String :  Ajink
reversed string :  knijA

Process finished with exit code 0
```

3) Write a Python function that checks whether a passed string is palindrome or not.

```
str = input("Enter the String you want to be Passed : ")
rev = str[::-1]

if str == rev:
    print(str  + " This String is Palindrome")
    print("Reason : " + str + " is Equal " + rev)
else:
    print(str + " This String is not Palindrome ")
    print("Reason : " + str + " is not Equal " + rev)
```

Output :

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\palindrome.py
Enter the String you want to be Passed : Ajink Gupta
Ajink Gupta This String is not Palindrome
Reason : Ajink Gupta is not Equal atpuG knijA

Process finished with exit code 0
```

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\palindrome.py
Enter the String you want to be Passed : radar
radar This String is Palindrome
Reason : radar is Equal radar

Process finished with exit code 0
```

4) Write a Python program to make a chain of function decorators (bold, italic, underline etc.) in Python.

```
class color:
   ITALIC = '\033[3m'
   BOLD = '\033[1m'
   UNDERLINE = '\033[4m'
   END = '\033[0m'

print(color.BOLD+color.UNDERLINE+color.ITALIC + 'chain of function decorators ' + color.END)
```

```
deco
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\deco.py
chain of function decorators
```

5) **Write a program that asks the user for two numbers. Then ask them if they would like to add, subtract, divide, or multiply these numbers. Perform the chosen operation on the values, showing the operation being performed. Write four functions, one for each mathematicaloperation.**

Example: add(), subtract(), Multiply(), and Divide()

```
def add_num(a,b):
    sum=a+b;
```

```
    return sum;

def sub_num(a,b):
    sub=a-b;
    return sub;

def mul_num(a,b):
    mul=a*b;
    return mul;


def div_num(a,b):
    div=a/b;
    return div;


num1=int(input("input the number one: "))
num2=int(input("input the number one :"))

calc = input("Enter any of these Operations \n 1 for Addition \n 2 for Subtration \n 3 for
Multiplication \n 4 for Division  \n Input : ")

if calc == '1':
 print("The sum is",add_num(num1,num2))
elif calc == '2':
 print("The subtraction is",sub_num(num1,num2))

elif calc == '3':
 print("The multiplication is",mul_num(num1,num2))

elif calc == '4':
 print("The Division is",div_num(num1,num2))

else :
    print("Wrong Operator code : : ")
```

Output :

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\calc-func.py
input the number one: 12
input the number one :12
Enter any of these Operations
 1 for Addition
 2 for Subtration
 3 for Multiplication
 4 for Division
 Input : 1
The sum is 24

Process finished with exit code 0
```

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\calc-func.py
input the number one: 12
input the number one :12
Enter any of these Operations
 1 for Addition
 2 for Subtration
 3 for Multiplication
 4 for Division
 Input : 2
The subtraction is 0

Process finished with exit code 0
```

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\calc-func.py
input the number one: 12
input the number one :12
Enter any of these Operations
 1 for Addition
 2 for Subtration
 3 for Multiplication
 4 for Division
 Input : 3
The multiplication is 144

Process finished with exit code 0
```

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\calc-func.py
input the number one: 12
input the number one :12
Enter any of these Operations
 1 for Addition
 2 for Subtration
 3 for Multiplication
 4 for Division
 Input : 4
The Division is 1.0

Process finished with exit code 0
```

6) **Write a program that will give suggested footwear based on the weather.**

Ask the user for the weather outside with three options (sunny, rainy, or snowy) and give the correct footwear suggestion (sneaker, gumboot, or boots). Each option should be written as its own function that prints a message based on the input. Expected output:

```
def sunny():
    print("You Can Wear sneaker!")

def rainy():
    print("You Can wear gumboot!")

def snowy():
    print("You Can wear boot!")


weather_today = input("Whats the weather today (sunny, rainy, or snowy) : \n Enter 1 for Sunny \n Enter 2 for Rainy \n Enter 3 for Snowy \n Enter :  ")
if weather_today == "1":
    sunny()
elif weather_today == "2":
    rainy()
elif weather_today == "3":
    snowy()
else:
    print("I am unable to find footwear for you")
```

Output :

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\suggest.py
Whats the weather today (sunny, rainy, or snowy) :
 Enter 1 for Sunny
 Enter 2 for Rainy
 Enter 3 for Snowy
 Enter :  1
You Can Wear sneaker!

Process finished with exit code 0
```

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\suggest.py
Whats the weather today (sunny, rainy, or snowy) :
 Enter 1 for Sunny
 Enter 2 for Rainy
 Enter 3 for Snowy
 Enter :  2
You Can wear gumboot!

Process finished with exit code 0
```

```
C:\Users\Ajink\AppData\Local\Programs\Python\Python39\python.exe D:\Ai_21\problem-set-3\suggest.py
Whats the weather today (sunny, rainy, or snowy) :
 Enter 1 for Sunny
 Enter 2 for Rainy
 Enter 3 for Snowy
 Enter :  3
You Can wear boot!

Process finished with exit code 0
```