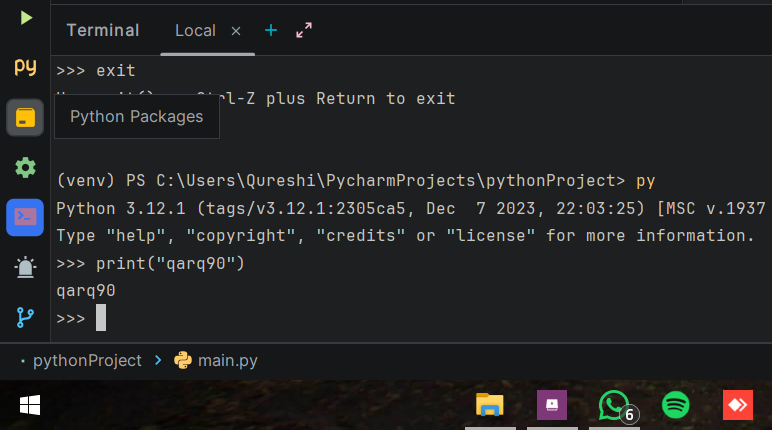
# **Name: Abdurrahman Qureshi**

# **Roll No: 210451**

Practical No: 2

**1) Write a Python program to display your name using Interactive Mode**

**OUTPUT:**

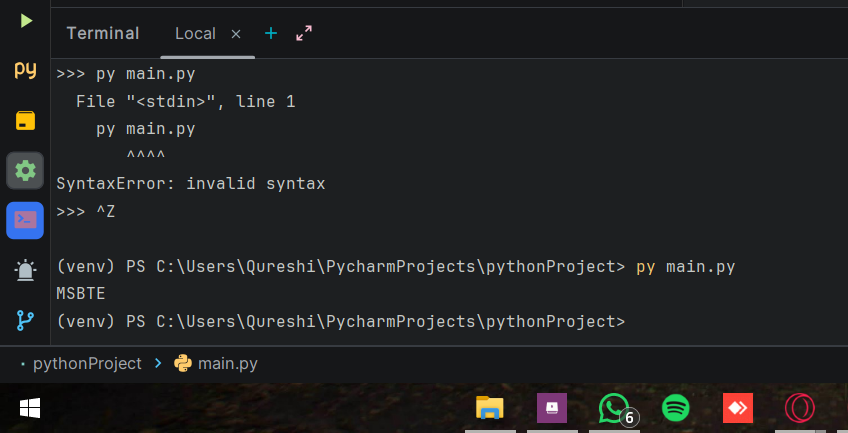


**2) Write a Python program to display “MSBTE” using Script Mode**

**CODE:**

print("MSBTE")

**OUTPUT:**

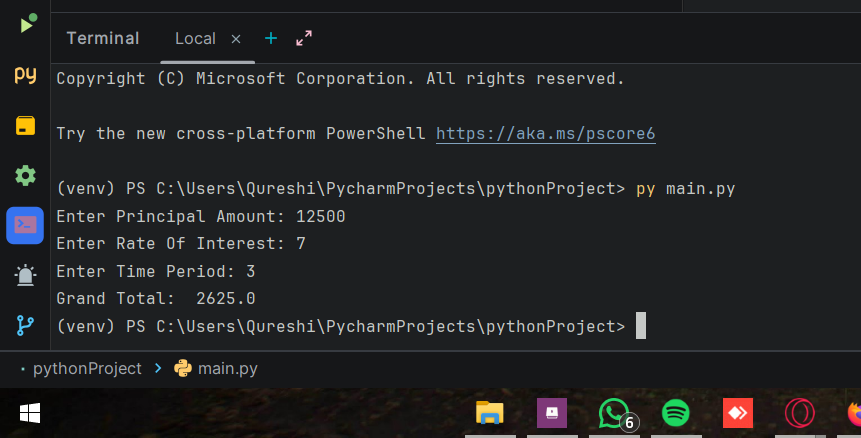
****

**3) Write a Program to calculate simple interest**

**CODE:**

principle\_amount = int(input("Enter Principal Amount: "))  
rate\_of\_interest = int(input("Enter Rate Of Interest: "))  
time\_period = int(input("Enter Time Period: "))  
  
grand\_total\_amount = (principle\_amount \* rate\_of\_interest \* time\_period) / 100  
  
print("Grand Total: " , grand\_total\_amount)

**OUTPUT:**

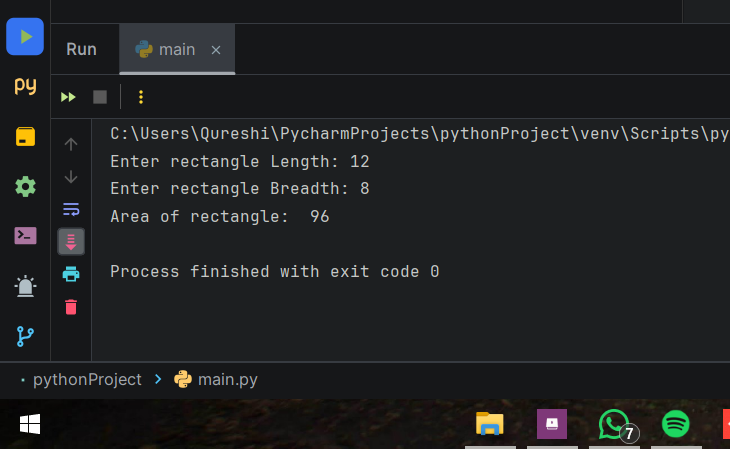
****

**4) Write a Program to calculate area of rectangle**

**CODE:**

def calculate\_area\_rect(length,breadth):  
 return length \* breadth  
  
  
length = int(input("Enter rectangle Length: "))  
breadth = int(input("Enter rectangle Breadth: "))  
  
area = calculate\_area\_rect(length, breadth)  
  
print("Area of rectangle: ", area)

**OUTPUT:**

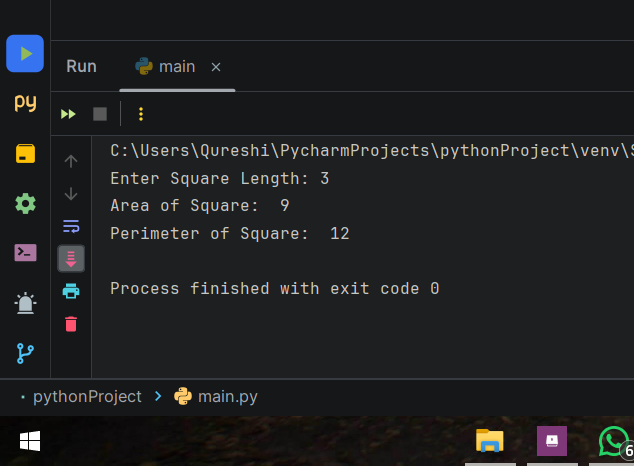


**5) Write a Program to calculate area and perimeter or square**

**CODE:**

def calculate\_area\_square(len):  
 area = len \* len  
 peri = len \* 4  
 print("Area of Square: ", area)  
 print("Perimeter of Square: ", peri)  
  
  
length = int(input("Enter Square Length: "))  
  
calculate\_area\_square(length)

**OUTPUT:**

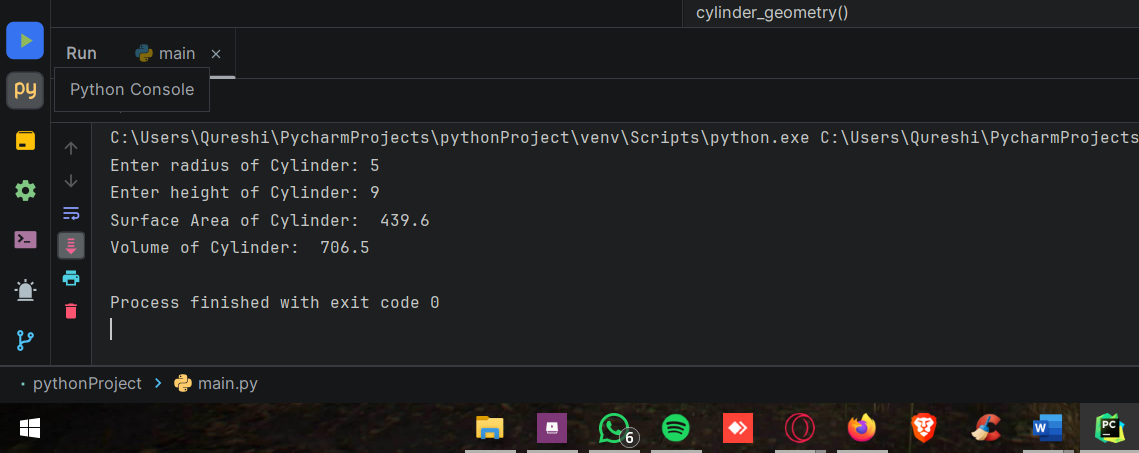


**6) Write a Program to calculate surface volume and area of cylinder.**

**CODE:**

def cylinder\_geometry(rad,hei):  
 surface\_area = 2 \* 3.14 \* rad \* (rad + hei)  
 print("Surface Area of Cylinder: " , surface\_area)  
 volume = 3.14 \* rad \* rad \* hei  
 print("Volume of Cylinder: " , volume)  
  
  
radius = int(input("Enter radius of Cylinder: "))  
height = int(input("Enter height of Cylinder: "))  
  
cylinder\_geometry(radius, height)

**OUTPUT:**



**7) Write a Program to swap numbers without temp variable**

**CODE:**

def swap\_numbers(num\_a, num\_b):  
 print("Numbers ---> Before Swap: [A, B] ", num\_a, num\_b)  
 num\_a = num\_a + num\_b  
 num\_b = num\_a - num\_b  
 num\_a = num\_a - num\_b  
 print("Numbers ---> After Swap: [A, B] ", num\_a, num\_b)  
  
  
numX = int(input("Enter number A:"))  
numY = int(input("Enter number B:"))  
  
swap\_numbers(numX, numY)

**OUTPUT:**

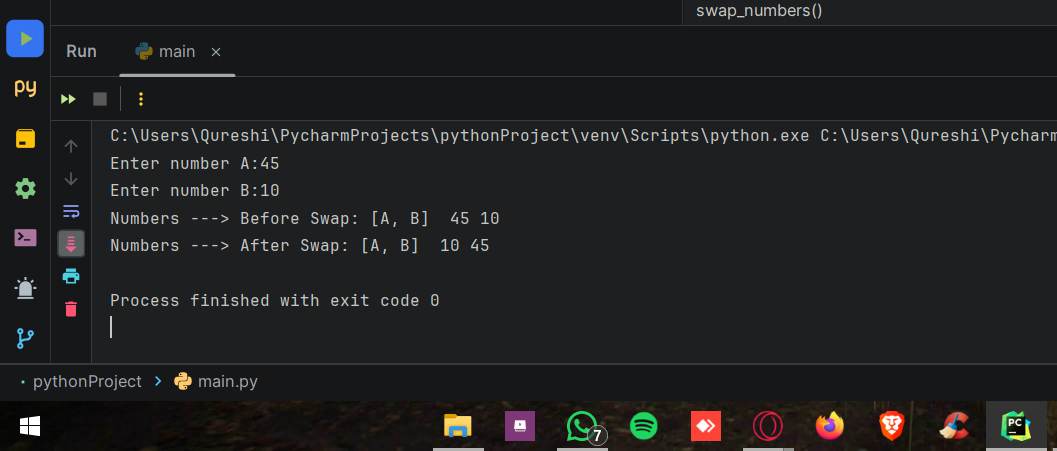


**8) Write a Program to swap numbers with temp variable**

**CODE:**

def swap\_numbers(num\_a, num\_b):  
 print("Numbers ---> Before Swap: [A, B] ", num\_a, num\_b)  
 temp = num\_a  
 num\_a = num\_b  
 num\_b = temp  
 print("Numbers ---> After Swap: [A, B] ", num\_a, num\_b)  
  
  
numX = int(input("Enter number A:"))  
numY = int(input("Enter number B:"))  
  
swap\_numbers(numX, numY)

**OUTPUT:**

****

**9) Write a Program to print all datatypes**

**CODE:**

def print\_data\_types():  
 integer\_var = 42  
 print("Integer: ", integer\_var, "Type: ", type(integer\_var))  
  
 float\_var = 3.14  
 print("Float: ", float\_var, "Type: ", type(float\_var))  
  
 string\_var = "Hello, Python!"  
 print("String: ", string\_var, "Type: ", type(string\_var))  
  
 list\_var = [1, 2, 3, 4, 5]  
 print("List: ", list\_var, "Type: ", type(list\_var))  
  
 tuple\_var = (10, 20, 30)  
 print("Tuple: ", tuple\_var, "Type: ", type(tuple\_var))  
  
 *# Set* set\_var = {1, 2, 3}  
 print("Set: ", set\_var, "Type: ", type(set\_var))  
  
 dict\_var = {"key": "value", "number": 42}  
 print("Dictionary: ", dict\_var, "Type: ", type(dict\_var))  
  
 bool\_var = True  
 print("Boolean: ", bool\_var, "Type: ", type(bool\_var))  
  
  
print\_data\_types()

**OUTPUT:**

