

Worksheet – 1.1

Student Name: Vivek Kumar

UID: 21BCS8129

Branch: BE-CSE (LEET)

Section/Group: 808/B

Semester: 4th

Date of Performance: 18/02/2022

Subject Name: Programming In Python Lab

Subject Code: 20CSP-259

1. Aim/Overview of the practical:

- I. Write a program to enter two numbers and perform all arithmetic operations.
- II. Write a program to enter marks of five subjects and calculate total, average and percentage.
- III. Write a program to enter length in centimeter and convert it into meter and kilometer, and also convert the same into Equivalents

2. Task to be done/ Which logistics used:

- I. Perform arithmetic operation.
- II. Calculate the total, average and percentage.
- III. Convert centimeter into meter, kilometer and vice versa.

3. Steps for experiment/practical/Code:

- I. Perform arithmetic operation.

Source Code:

```
num1 = float(input(" Please Enter the First Number: "))
num2 = float(input(" Please Enter the Second Number: "))
add = num1 + num2
sub = num1 - num2
multi = num1 * num2
div = num1 / num2
mod = num1 % num2
expo = num1 ** num2
print("The Sum of {0} and {1} = {2}".format(num1, num2, add))
print("The Subtraction of {0} from {1} = {2}".format(num2, num1, sub))
print("The Multiplication of {0} and {1} = {2}".format(num1, num2, multi))
print("The Division of {0} and {1} = {2}".format(num1, num2, div))
print("The Modulus of {0} and {1} = {2}".format(num1, num2, mod))
print("The Exponent Value of {0} and {1} = {2}".format(num1, num2, expo))
```

II. Calculate the total, average and percentage.

Source Code:

```
english = float(input("Please enter English Marks: "))
math = float(input("Please enter Math score: "))
computers = float(input("Please enter Computer Marks: "))
physics = float(input("Please enter Physics Marks: "))
chemistry = float(input("Please enter Chemistry Marks: "))
total = english + math + computers + physics + chemistry
average = total / 5
percentage = (total / 500) * 100
print("\nTotal Marks = %.2f" %total)
print("Average Marks = %.2f" %average)
print("Marks Percentage = %.2f" %percentage)
```

III. Convert centimeter into meter, kilometer and vice versa.

Source Code:

```
#Covert centimeters to meters & Kilometers
cm = input("Enter Length in Centimeters : ")
meter = float(cm)/100
kilometer = float(cm) / 100000
print("Length in meters = " ,meter , "m")
print("Length in Kilometers = ",kilometer , "km")

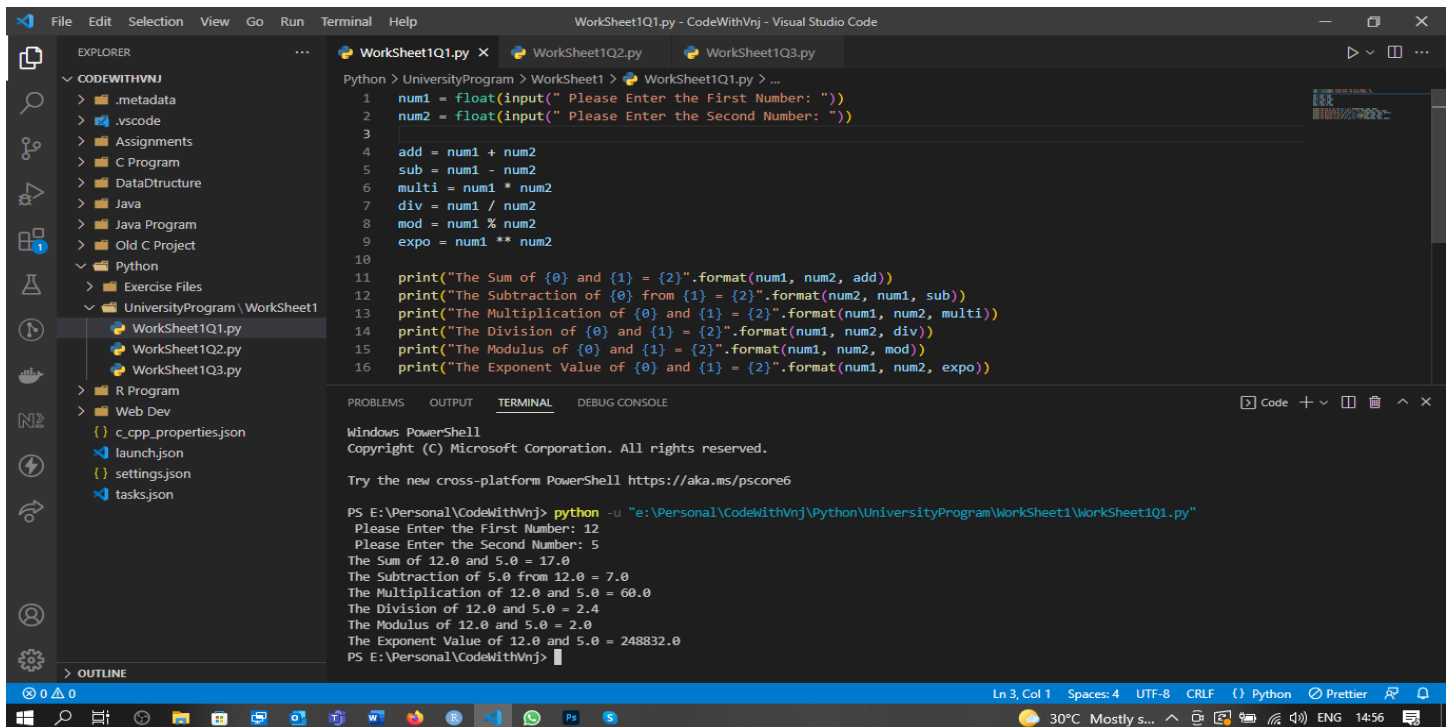
#Covert Meters to centimeters & Kilometers
meter = input("Enter Length in Meters : ")
cm = float(meter)*100
kilometer = float(meter) / 1000
print("Length in Centimeters = " ,cm , "cm")
print("Length in Kilometers = ",kilometer , "km")

#Covert Kilometers to centimeters & meters
kilometer = input("Enter Length in Kilometers : ")
meter = float(kilometer)*1000
cm = float(kilometer) * 100000
print("Length in Centimeters = " ,cm , "cm")
print("Length in meters = ",meter , "m")
```

4. Result/Output/Writing Summary:

I. Perform arithmetic operation.

Output:



```

1 num1 = float(input(" Please Enter the First Number: "))
2 num2 = float(input(" Please Enter the Second Number: "))
3
4 add = num1 + num2
5 sub = num1 - num2
6 multi = num1 * num2
7 div = num1 / num2
8 mod = num1 % num2
9 expo = num1 ** num2
10
11 print("The Sum of {0} and {1} = {2}".format(num1, num2, add))
12 print("The Subtraction of {0} from {1} = {2}".format(num2, num1, sub))
13 print("The Multiplication of {0} and {1} = {2}".format(num1, num2, multi))
14 print("The Division of {0} and {1} = {2}".format(num1, num2, div))
15 print("The Modulus of {0} and {1} = {2}".format(num1, num2, mod))
16 print("The Exponent Value of {0} and {1} = {2}".format(num1, num2, expo))

```

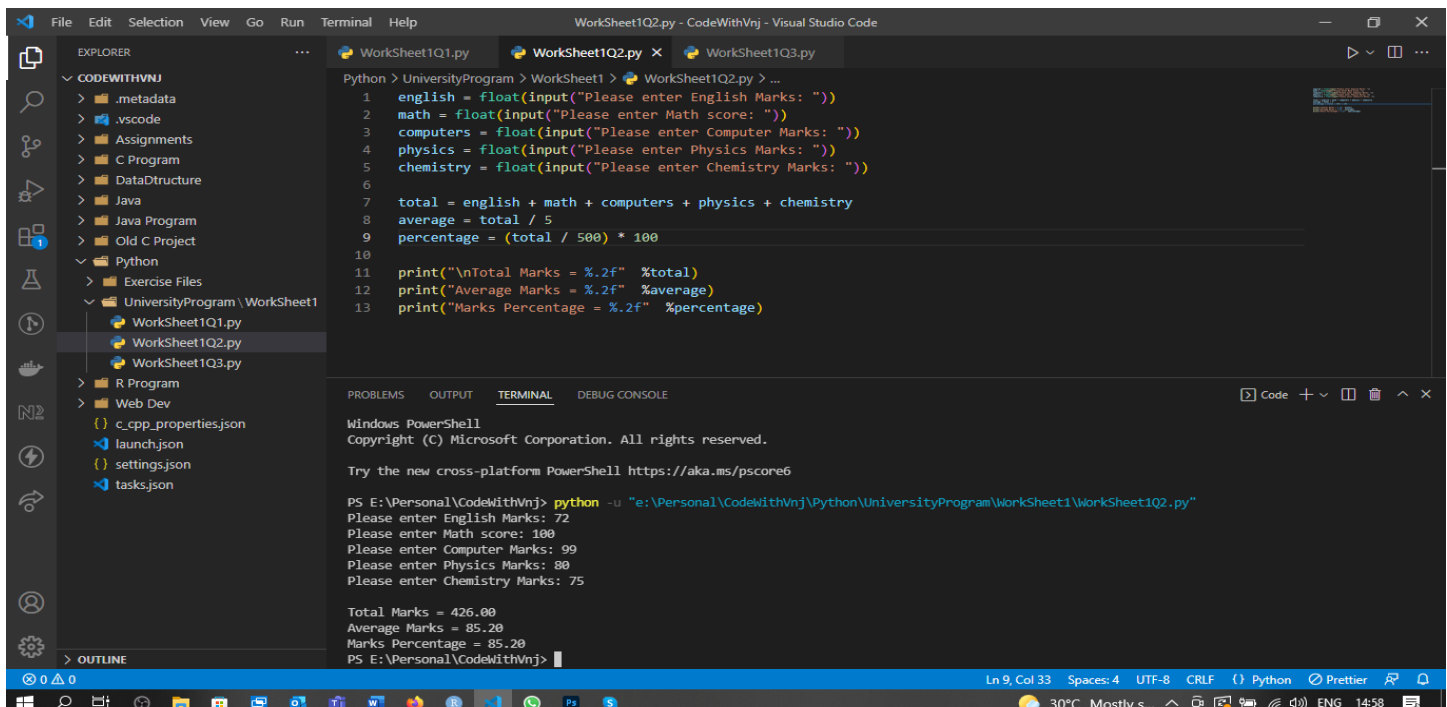
```

PS E:\Personal\CodeWithVnj> python -u "e:\Personal\CodeWithVnj\Python\UniversityProgram\workSheet1\workSheet1Q1.py"
Please Enter the First Number: 12
Please Enter the Second Number: 5
The Sum of 12.0 and 5.0 = 17.0
The Subtraction of 5.0 from 12.0 = 7.0
The Multiplication of 12.0 and 5.0 = 60.0
The Division of 12.0 and 5.0 = 2.4
The Modulus of 12.0 and 5.0 = 2.0
The Exponent Value of 12.0 and 5.0 = 248832.0
PS E:\Personal\CodeWithVnj>

```

II. Calculate the total, average and percentage.

Output:



```

1 english = float(input("Please enter English Marks: "))
2 math = float(input("Please enter Math score: "))
3 computers = float(input("Please enter Computer Marks: "))
4 physics = float(input("Please enter Physics Marks: "))
5 chemistry = float(input("Please enter Chemistry Marks: "))
6
7 total = english + math + computers + physics + chemistry
8 average = total / 5
9 percentage = (total / 500) * 100
10
11 print("\nTotal Marks = %.2f" %total)
12 print("Average Marks = %.2f" %average)
13 print("Marks Percentage = %.2f" %percentage)

```

```

PS E:\Personal\CodeWithVnj> python -u "e:\Personal\CodeWithVnj\Python\UniversityProgram\workSheet1\workSheet1Q2.py"
Please enter English Marks: 72
Please enter Math score: 100
Please enter Computer Marks: 99
Please enter Physics Marks: 80
Please enter Chemistry Marks: 75

Total Marks = 426.00
Average Marks = 85.20
Marks Percentage = 85.20
PS E:\Personal\CodeWithVnj>

```

III. Convert centimeter into meter, kilometer and vice versa.

Output:

```

1 #Covert centimeters to meters & Kilometers
2 cm = input("Enter Length in Centimeters : ")
3 meter = float(cm)/100
4 kilometer = float(cm) / 100000
5 print("Length in meters = ",meter , "m")
6 print("Length in Kilometers = ",kilometer , "km")
7
8 #Covert Meters to centimeters & Kilometers
9 meter = input("Enter Length in Meters : ")
10 cm = float(meter)*100
11 kilometer = float(meter) / 1000
12 print("Length in Centimeters = " ,cm , "cm")
13 print("Length in Kilometers = ",kilometer , "km")
14
15 #Covert Kilometers to centimeters & meters
16 kilometer = input("Enter Length in Kilometers : ")

```

```

Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/powershell

PS E:\Personal\CodeWithVnJ> python -u "e:\Personal\CodeWithVnJ\Python\UniversityProgram\WorkSheet1\WorkSheet1Q3.py"
Enter Length in Centimeters : 5000
Length in meters = 50.0 m
Length in Kilometers = 0.05 km
Enter Length in Meters : 600
Length in Centimeters = 60000.0 cm
Length in Kilometers = 0.6 km
Enter Length in Kilometers : 3
Length in Centimeters = 300000.0 cm
Length in meters = 3000.0 m
PS E:\Personal\CodeWithVnJ>

```

Learning outcomes (What I have learnt):

1. I have learnt, how to perform Arithmetic Operations on two numbers.
2. Learnt to find the Sum, Average and Percentage in python.
3. Learnt length conversion using python.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			