ASSIGNMENT 2
(PYTHON PROGRAMMING)

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MCA 1st Sem

Q1.WAP TO PRINT MARKS WITH AVERAGE

```python
print("Enter Marks Obtained in 4 Subjects: ")
m1 = int(input("Marks for english :-"))
m2 = int(input("Marks for maths:-"))
m3 = int(input("Marks for science:-"))
m4 = int(input("Marks for hindi:-"))
sum = m1+m2+m3+m4
avg = float(sum/4)
print(end="Average Mark = ")
print(avg)
if avg >=90:
    print("Outstanding")
elif avg >=80:
    print("Excellent")
elif avg >= 70:
    print("Average")
elif avg >= 60:
    print("Pass")
else:
    print("Fail")
```

```
Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/marks.py
Enter Marks Obtained in 4 Subjects:
Marks for english :-89
Marks for maths:-96
Marks for science:-88
Marks for hindi:-94
Average Mark = 91.75
Outstanding
PS C:\Users\hp\Documents\python>
```

Q2.WAP TO PRINT LARGEST NUMBER BETWEEN TWO NUMBERS

```python
n1 = int(input("Enter first number: "))
n2 = int(input("Enter second number: "))
n3 = int(input("Enter third number: "))

if (n1 >= n2) and (n1 >= n3):
    largest = n1
elif (n2 >= n1) and (n2 >= n3):
    largest = n2
else:
    largest = n3

print("The largest number is", largest)
```

```
Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/largest.py
Enter first number: 56
Enter second number: 87
Enter third number: 90
The largest number is 90
PS C:\Users\hp\Documents\python>
```

Q3.WAP THAT READ TWO NUMBERS AND AN ARITHEMATIC OPERATOR AND DISPLAYS THE RESULT

```python
n1=float(input("Enter a 1st number"))
n2=float(input("Enter a 2nd number:-"))

print("1 for add")
print("2 for subtract")
print("3 for multiply")
print("4 for divide")

choice=float(input())
if choice==1:
    add=n1+n2
    print(add)
if choice==2:
    subtract=n1-n2
    print(subtract)
```

```python
if choice==3:
    multi=n1*n2
    print(multi)

if choice==4:
    div=n1/n2
    print(div)
```

```
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/arith.py
Enter a 1st number50
Enter a 2nd number:-12
1 for add
2 for subtract
3 for multiply
4 for divide
1
62.0
PS C:\Users\hp\Documents\python>
```

Q4.WAP TO ACCEPT A CHARACTER FROM THE USER AND DISPLAY WHETHER IT IS VOWELS OR NOT

```python
ch=input("Enter a character:")

if ch=='A'or ch=='a' or ch=='E'or ch=='e'or ch=='I'or ch=='i' or ch=='O'or ch=='o'or ch=='U' or ch=='u':
    print(ch,"Character is Vowels ")
else:
    print(ch,"Character is consonant")
```

```
Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/vowel.py
Enter a character:H
H Character is consonant
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/vowel.py
Enter a character:A
A Character is Vowels
PS C:\Users\hp\Documents\python>
```

Q5.WAP TO CHECK WHETHER THE GIVEN CHARACTER IS ALPHABET OR NOT

```python
ch = input("Enter a character: ")
if((ch>='a' and ch<= 'z') or (ch>='A' and ch<='Z')):
    print(ch, "is an Alphabet")
else:
    print(ch, "is not an Alphabet")
```

```
Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/alpha.py
Enter a character: A
A is an Alphabet
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/alpha.py
Enter a character: 3
3 is not an Alphabet
PS C:\Users\hp\Documents\python>
```

Q6.WAP TO CHECK WHETHER THE GIVEN NUMBER IS DIVISIBLE BY 3 AND 5 OR NOT

```python
n1 = int(input("Enter a number:"))
if((n1%3==0) and (n1%5==0)):
    print("The number {} is divisible by 3 and 5:".format(n1))
else:
    print("Not divisible by 3 and 5")
```

```
Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/lab1.py
Enter a positive number:-30
Number 30 is divisible by 3 and 5
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/lab1.py
Enter a positive number:-12
Number 12 is not divisible by 3 and 5
PS C:\Users\hp\Documents\python>
```

Q7.WAP TO INPUT 3 NUMBERS AND FIND THE SECOND SMALLEST

```python
print("Enter 3 numbers")
x, y, z = int(input()), int(input()), int(input())
if x<y<z or z<y<x:
    print(y,"is the second smallest number")
elif y<z<x or x<z<y:
    print(z,"is the second smallest number")
else:
    print(x,"is the second smallest number")
```

```
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/T.PY
Enter 3 numbers
56
41
87
56 is the second smallest number
PS C:\Users\hp\Documents\python>
```

Q8.WAP TO INPUT CONSUMED UNIT AND CALCULATE ELECTRICITY BILL,WHERE MONTHLY RENT RS.300.

UNIT	CHARGE PER UNIT(RS.)
Upto 300	7
301-800	9
801-1500	12
1501 & above	15

```python
unit = input("Please enter the units consumed: ")
unit = int(unit)

if unit >= 0:
    default = 300
    # Processing data
    if unit <= 300:
        if (unit * 7) < default:
            total = default
        else:
            total = unit * 7
    elif 300 < unit and unit <= 800:
        total = ((unit - 300) * 9) + (300 * 7)
    elif 800 < unit and unit <= 1500:
        total = (300 * 7) + (500 * 9) + ((unit - 800) * 12)
    else:
        total = (300 * 7) + (500 * 9) + (700 * 12) + ((unit - 1500) * 15)
    # Display output
    print(f"Consumed unit: {unit}")
    print(f"Your total bill {total}")
else:
    print("Invalid unit entered!")
```

```
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/bill.py
Please enter the units consumed: 20
Consumed unit: 20
Your total bill 300
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/bill.py
Please enter the units consumed: 812
Consumed unit: 812
Your total bill 6744
PS C:\Users\hp\Documents\python>
```

Q9. WAP TO INPUT 3 SIDES OF A TRIANGLE AND PRINTS ITS TYPE(i.e. EQUILATERAL/ISOSCELES/SCALENE).

```python
a=int(input("Enter first number:-"))
b=int(input("Enter second number:-"))
c=int(input("Enter third number:-"))
if a==b and b==c:
    print("It is an Equilateral Triangle")
elif a==b or b==c or c==a:
    print("It is Isosceles Triangle ")
else:
    print("It is Scalene Triangle")
```

```
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/lab1.py
Enter first number:-20
Enter second number:-20
Enter third number:-20
It is an Equilateral Triangle
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/lab1.py
Enter first number:-12
Enter second number:-14
Enter third number:-16
It is Scalene Triangle
PS C:\Users\hp\Documents\python> & "C:/Program Files/Python/python.exe" c:/Users/hp/Documents/python/lab1.py
Enter first number:-12
Enter second number:-12
Enter third number:-15
It is Isosceles Triangle
PS C:\Users\hp\Documents\python>
```