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Python Programming - 2101CS405

Lab - 1

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01) WAP to print “Hello World”

```
In [1]: print("Hello World")
```

Hello World

02) WAP to print your address i) using single print ii) using multiple print

```
In [2]: print("Ambedkar Nagar sr no.8 \nGondal Road \nRajkot")
print("Ambedkar Nagar sr no.8")
print("Gondal Road")
print("RAjkot")
```

Ambedkar Nagar sr no.8
Gondal Road
Rajkot
Ambedkar Nagar sr no.8
Gondal Road
RAjkot

03) WAP to print addition of 2 numbers (without input function)

```
In [3]: a = 10  
b = 30  
print(a+b)
```

40

04) WAP to calculate and print average of 2 numbers (without input function)

```
In [4]: a = 10  
b = 30  
print((a+b)/2)
```

20.0

05) WAP to add two number entered by user.

```
In [7]: a = int(input("Enter First Number"))  
b = int(input("Enter Second Number"))  
print(a+b)
```

Enter First Number10
Enter Second Number20
30

06) WAP to calculate simple interest.

```
In [14]: p = float(input("Enter Principal "))  
r = float(input("Rate of Interest in % "))  
t = float(input("Enter Time "))  
print("simple intrest:",(p*t*r)/100)
```

Enter Principal 5
Rate of Interest in % 45
Enter Time 5
simple intrest: 11.25

07) WAP Calculate Area and Circumference of Circle

```
In [18]: import math

radius = float(input("Enter Radius: "))
print("Area OF Circul", (math.pi*radius*radius))
print("Circumfrence of Circle", (2*math.pi*radius))
```

```
Enter Radius: 20
Area OF Circul 1256.6370614359173
Circumfrence of Circle 125.66370614359172
```

08) WAP to print Multiplication table of given number without using loops.

```
In [20]: num = int(input("Enter Number:"))
print(f"{num} x 1 = ", num*1)
print(f"{num} x 2 = ", num*2)
print(f"{num} x 3 = ", num*3)
print(f"{num} x 4 = ", num*4)
print(f"{num} x 5 = ", num*5)
print(f"{num} x 6 = ", num*6)
print(f"{num} x 7 = ", num*7)
print(f"{num} x 8 = ", num*8)
print(f"{num} x 9 = ", num*9)
print(f"{num} x 10 = ", num*10)
```

```
Enter Number:2
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
```

09) WAP to calculate Area of Triangle (hint: $a = h * b * 0.5$)

```
In [21]: height = float(input("Enter Height: "))
base = float(input("Enter Base: "))
print("Area of Triangle:", (height*base*.5))
```

```
Enter Height: 2
Enter Base: 3
Area of Triangle: 3.0
```

10) WAP to convert degree to Fahrenheit and vice versa.

```
In [23]: celcius = float(input("Enter Celcius:"))
fahrenheit = float(input("Enter Fahrenheit:"))
print("Celcius to fahrenheit:", celcius*(9/5)+32)
print("fahrenheit to celcius:", (fahrenheit - 32) * 5/9)
```

```
Enter Celcius:-40
Enter Fahrenheit:-40
Celcius to fahrenheit: -40.0
fahrenheit to celcius: -40.0
```

11) WAP to calculate total marks and Percentage.

```
In [24]: maths = float(input("Enter Maths Mark:"))
phy = float(input("Enter Physics MArk:"))
java = float(input("Enter Java Mark:"))
DBMS = float(input("Enter DBMS Mark:"))
DS = float(input("Enter DS Mark:"))

total = maths+phy+java+DBMS+DS
print("Total Mark: ", total)
print("Percentage: ", (total/500)*100)
```

```
Enter Maths Mark:90
Enter Physics MArk:90
Enter Java Mark:90
Enter DBMS Mark:90
Enter DS Mark:90
Total Mark: 450.0
Percentage: 90.0
```

12) Compute distance between two points taking input from the user (Pythagorean Theorem).

```
In [27]: import math

x1 = float(input("Enter Point x1:"))
y1 = float(input("Enter Point y1:"))
x2 = float(input("Enter Point x2:"))
y2 = float(input("Enter Point y2:"))

ans = math.sqrt((math.pow((x2-x1),2))+(math.pow((y2-y1),2)))
print(ans)
```

```
Enter Point x1:2
Enter Point y1:3
Enter Point x2:2
Enter Point y2:6
3.0
```

13) WAP to convert seconds into hours, minutes & seconds and

print in HH:MM:SS

```
In [3]: second = int(input("Enter Second :"))

hour = int(second/3600)
minite = int(second/3600) - (hour*60)
second = second -(hour*3600) - (minite*60)
print(hour,":",minite,":",second)
```

Enter Second :60

0 : 0 : 60

14) WAP to enter distance into kilometer and convert it into meter, feet,inches, and centimeter

```
In [29]: kg = float(input("Enter Kilometer "))

print("Kilometer To Meter: ",kg*1000)
print("Kilometer To Feet:",kg*3281)
print("Kilometer To inches:",kg*39370.1)
print("Kilometer To centimeter:",kg*100000)
```

Enter Kilometer2

Kilometer To Meter: 2000.0

Kilometer To Feet: 6562.0

Kilometer To inches: 78740.2

Kilometer To centimeter: 200000.0

In []: