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Python Programming - 2101CS405

Lab - 1

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 [4]: # Using single print  
  
print('Near Hadala, Rajkot-Morbi highway, Rajkot -363650')  
  
# Using Multiple print  
  
print('Near Hadala')  
print('Rajkot-Morbi highway')  
print('Rajkot -363650')
```

Near Hadala, Rajkot-Morbi highway, Rajkot -363650
Near Hadala
Rajkot-Morbi highway
Rajkot -363650

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

```
In [5]: print('Add = ', 10+20)
```

Add = 30

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

```
In [6]: print('Avg = ', (10+2+30)/3)
```

Avg = 14.0

05) WAP to add two number entered by user.

```
In [8]: a = int(input('Enter a : '))  
b = int(input('Enter b : '))  
  
print('Add = ', a+b)
```

Enter a : 10
Enter b : 20
Add = 30

06) WAP to calculate simple interest.

```
In [9]: p = float(input('Enter p : '))
r = float(input('Enter r : '))
n = float(input('Enter n : '))

print('Interest = ', (p * r * n) / 100)
```

```
Enter p : 10000
Enter r : 10
Enter n : 1
Interest = 1000.0
```

```
In [ ]:
```

07) WAP Calculate Area and Circumference of Circle

```
In [10]: r = float(input('Enter radius : '))

print('Area = ', (3.14 * r * r))

print('Circumference = ', (2 * 3.14 * r))
```

```
Enter radius : 10
Area = 314.0
Circumference = 62.800000000000004
```

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

```
In [13]: n = int(input('Enter the number : '))

print(n, ' * ',1,' = ', n * 1)
print(n, ' * ',2,' = ', n * 2)
print(n, ' * ',3,' = ', n * 3)
print(n, ' * ',4,' = ', n * 4)
print(n, ' * ',5,' = ', n * 5)
print(n, ' * ',6,' = ', n * 6)
print(n, ' * ',7,' = ', n * 7)
print(n, ' * ',8,' = ', n * 8)
print(n, ' * ',9,' = ', n * 9)
print(n, ' * ',10,' = ', n * 10)
```

```
Enter the number : 1
1 * 1 = 1
1 * 2 = 2
1 * 3 = 3
1 * 4 = 4
1 * 5 = 5
1 * 6 = 6
1 * 7 = 7
1 * 8 = 8
1 * 9 = 9
1 * 10 = 10
```

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

```
In [14]: h = float(input('Enter height : '))
b = float(input('Enter base : '))

print('Area = ', (h * b * 0.5))
```

```
Enter height : 10
Enter base : 20
Area = 100.0
```

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

```
In [15]: c = float(input('Enter temperature in celcius : '))
f = f = (c * (9 / 5)) + 32

print('Fehrenhit = ', f)

f =float(input('Enter temperature in fehrenhit : '))

c = (f - 32 ) * (9 / 5)

print('Celcius = ', c)
```

```
Enter temperature in celcius : 0
Fehrenhit = 32.0
Enter temperature in fehrenhit : 32
Celcius = 0.0
```

11) WAP to calculate total marks and Percentage.

```
In [17]: s1 = float(input('Enter marks of subject 1 :'))
s2 = float(input('Enter marks of subject 2 :'))
s3 = float(input('Enter marks of subject 3 :'))
s4 = float(input('Enter marks of subject 4 :'))
s5 = float(input('Enter marks of subject 5 :'))

t = s1 + s2 + s3 + s4 + s5
p = t / 5

print('Total = ', t)
print('Percentage = ', p)
```

```
Enter marks of subject 1 :56
Enter marks of subject 2 :50
Enter marks of subject 3 :45
Enter marks of subject 4 :78
Enter marks of subject 5 :96
Total = 325.0
Percentage = 65.0
```

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

```
In [18]: import math

x1 = int(input("Enter the Marks of X1 : "))
x2 = int(input("Enter the Marks of X2 : "))
y1 = int(input("Enter the Marks of Y1 : "))
y2 = int(input("Enter the Marks of Y2 : "))

d = float(math.sqrt(math.pow(x1-x2, 2)+math.pow(y1-y2, 2)))

print('Distance = ', d)
```

```
Enter the Marks of X1 : 55
Enter the Marks of X2 : 35
Enter the Marks of Y1 : 54
Enter the Marks of Y2 : 45
Distance = 21.93171219946131
```

13) WAP to convert seconds into hours, minutes & seconds and print in HH:MM:SS

[e.g. 10000 seconds mean 2:46:40 (2 Hours, 46 Minutes, 40Seconds)]

```
In [20]: s = int(input("Enter the seconds : "))

h = int(s / 3600)
m = int((s % 3600) / 60)
sec = (s % 3600) % 60

print(h, " : ", m, " : ", sec)
```

```
Enter the seconds : 10000
2 : 46 : 40
```

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

```
In [21]: km = int(input('Enter distance in km : '))

print('meter = ', km * 1000)
print('feet = ', km * 3280.84)
print('inches = ', km * 39370.1)
print('Centimeter = ', km * 100000)
```

```
Enter distance in km : 5
meter = 5000
feet = 16404.2
inches = 196850.5
Centimeter = 500000
```

```
In [ ]:
```