



# Python for Data Science - 2305CS303

## Lab - 1

Roll No. : 111

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### 1. WAP to print "Hello World"

```
In [4]: print("Hello World")
```

Hello World

### 2. WAP to print your address i) using single print ii) using multiple print

```
In [5]: print("Dhara M.", "221B Baker Street", "Delhi, India - 110001", sep="\n")
#multiple print
print("=====")
print("Dhara M")
print("221B Baker Street")
print("Delhi, India - 110001")
```

Dhara M.  
221B Baker Street  
Delhi, India - 110001  
=====  
Dhara M  
221B Baker Street  
Delhi, India - 110001

### 3. WAP to print addition of 2 numbers (without input function)

```
In [6]: a=10
b=20
print("Adding ", a, "+", b, " is = ", a+b)
```

Adding 10 + 20 is = 30

#### 4. WAP to calculate and print average of 2 numbers (without input function)

```
In [7]: num1 = 20
num2 = 30
avg = (num1 + num2) / 2
print("Average of", num1, "and", num2, "is", avg)
```

Average of 20 and 30 is 25.0

#### 5. WAP to add two number entered by user.

```
In [8]: a = float(input("Enter first number: "))
b = float(input("Enter second number: "))
print("Sum is", a + b)
```

Sum is 50.0

#### 6. WAP to calculate area of circle.

```
In [9]: r = float(input("Enter radius: "))
area = 3.14159 * r * r
print("Area of circle is", area)
```

Area of circle is 2827.431

#### 7. Purposefully raise Indentation Error and Correct it.

```
In [11]: a,b=10,20
#error
if a > b:
print(a)

#corrected
if a>b:
    print("a is greater")
```

Cell In[11], line 4

print(a)

^

**IndentationError:** expected an indented block after 'if' statement on line 3

#### 8. WAP to calculate simple interest

```
In [12]: p = float(input("Enter principal: "))
r = float(input("Enter rate: "))
t = float(input("Enter time: "))
si = (p * r * t) / 100
print("Simple Interest is", si)
```

Simple Interest is 1200.0

#### 9. WAP Calculate Area and Circumference of Circle.

```
In [13]: r = float(input("Enter radius: "))
area = 3.14159 * r * r
circumference = 2 * 3.14159 * r
print("Area is", area)
print("Circumference is", circumference)
```

Area is 2827.431

Circumference is 188.4954

## 10. WAP to print Multiplication table of given number.

```
In [14]: n = int(input("Enter a 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)
```

```
12 * 1 = 12
12 * 2 = 24
12 * 3 = 36
12 * 4 = 48
12 * 5 = 60
12 * 6 = 72
12 * 7 = 84
12 * 8 = 96
12 * 9 = 108
12 * 10 = 120
```

## 11. WAP to calculate Area of Triangle. (hint: $a = \frac{hb}{0.5}$ )

```
In [15]: b = float(input("Enter base: "))
h = float(input("Enter height: "))
area = 0.5 * b * h
print("Area of triangle is", area)
```

Area of triangle is 204.0

## 12. WAP to convert Degree to Fahrenheit and vice versa.

```
In [16]: c = float(input("Enter temperature in Celsius: "))
f = (c * 9/5) + 32
print("Temperature in Fahrenheit is", f)

f = float(input("Enter temperature in Fahrenheit: "))
c = (f - 32) * 5/9
print("Temperature in Celsius is", c)
```

Temperature in Fahrenheit is 93.2

Temperature in Celsius is 31.666666666666668

## 13.WAP to calculate total marks and Percentage.

```
In [17]: m1 = float(input("Enter marks for subject 1: "))
m2 = float(input("Enter marks for subject 2: "))
m3 = float(input("Enter marks for subject 3: "))
m4 = float(input("Enter marks for subject 4: "))
m5 = float(input("Enter marks for subject 5: "))
total = m1 + m2 + m3 + m4 + m5
percentage = (total / 500) * 100
print("Total Marks =", total)
print("Percentage =", percentage)
```

Total Marks = 396.0

Percentage = 79.2