Python Programming - 2301CS404

Lab - 1

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01) WAP to print “Hello World”

In [12]:
```
print('Hello World')
```

```
Hello World
```

02) WAP to print addition of two numbers with and without using input().

In [3]:
```
#without input
a,b=4,6
print(a+b)

#with input
a = int(input('Enter first number'))
b = int(input('Enter second number'))
print(a+b)
```

```
10
Enter first number5
Enter second number5
10
```

03) WAP to check the type of the variable.

In [11]:
```
print(type('abc'))
print(type(3))
print(type(3.745))
```

```
<class 'str'>
<class 'int'>
<class 'float'>
```

04) WAP to calculate simple interest.

In [18]:
```
p = 500
r = 0.04
t = 2

ans = (p*r*t)/100
print(ans)
```

```
0.4
```

05) WAP to calculate area and perimeter of a circle.

In [17]:
```
r = float(input('Enter Radius Of Circle'))
print(3.14*r*r)
print(2*3.14*r)
```

```
Enter Radius Of Circle1
3.14
6.28
```

06) WAP to calculate area of a triangle.

In [16]:
```
b = float(input('Enter value of base'))
h = float(input('Enter value of height'))
print(0.5*b*h)
```

```
Enter value of base3
Enter value of height2
3.0
```

07) WAP to compute quotient and remainder.

In [1]:
```
a = int(input('Enter the number'))
print(a/10)
print(a%10)
```

```
1
0.1
```

08) WAP to convert degree into Fahrenheit and vice versa.

In [14]:
```
fah=0;
cel = int(input("Enter celcius:"))
fah = (9/5)*cel +32;
print("Fahrenheit is:",fah)

fah = int(input("Enter Fahrenheit:"))
```

```
cel = (fah-32)*(5/9)
print("Celcius is:",cel)
```

```
Fahrenheit is: -0.3999999999999986
Celcius is: -1.1111111111111112
```

09) WAP to find the distance between two points in 2-D space.

In [ ]:
```
import math


def calculate_distance(x1, y1, x2, y2):
    distance = math.sqrt((x2 - x1) ** 2 + (y2 - y1) ** 2)
    return distance


try:
    print("Enter the coordinates of the first point:")
    x1 = float(input("x1: "))
    y1 = float(input("y1: "))

    print("Enter the coordinates of the second point:")
    x2 = float(input("x2: "))
    y2 = float(input("y2: "))

    distance = calculate_distance(x1, y1, x2, y2)
    print(f"The distance between ({x1}, {y1}) and ({x2}, {y2}) is: {distance:.2f
except ValueError:
    print("Please enter valid numeric inputs!")
```

10) WAP to print sum of n natural numbers.

In [2]:
```
num = int(input("Enter Range:"))
total=0;
for i in range(1,num+1):
    total=total+i
print(total)
```

```
15
```

11) WAP to print sum of square of n natural numbers.

In [3]:
```
num = int(input("Enter Range:"))
total=0;
for i in range(1,num+1):
    total=total+(i*i)
print(total)
```

```
14
```

12) WAP to concate the first and last name of the student.

In [19]:
```
firstname = input('Enter First name')
lastname = input('Enter Last name')
print(firstname+lastname)
```

```
Enter First namerutvik
Enter Last namebhagiya
rutvikbhagiya
```

13) WAP to swap two numbers.

In [15]:
```
a = input('Enter First Number')
b = input('Enter second Number')
print('before swapped',a,b)
temp = a
a = b
b = temp
print('After swapped',a,b)
```

```
Enter First Number5
Enter second Number2
before swapped 5 2
After swapped 2 5
```

14) WAP to get the distance from user into kilometer, and convert it into meter, feet, inches and centimeter.

In [3]:
```
kilometer = float(input("Enter Kilometer:"))
meter = kilometer * 1000
feet = kilometer * 3280.84
inch = kilometer * 39370.1
centimeter = kilometer * 100000

print("Meter: ",meter)
print("Feet: ",feet)
print("Inch: ",inch)
print("Centimeter: ",centimeter)
```

```
Meter:  10000.0
Feet:  32808.4
Inch:  393701.0
Centimeter:  1000000.0
```

15) WAP to get day, month and year from the user and print the date in the given format: 23-11-2024.

In [6]:
```
day = input("Enter Day:")
month = input("Enter Month:")
year = input("Enter Year:")

print(day,"-",month,"-",year)
```

```
10 - 10 - 10
```