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Python Programming - 2301CS404

Lab - 1

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01) WAP to print "Hello World"

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

Hello World

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

```
In [3]: a = 23
b = 67
print(a, "+", b, "=", a+b)
a = int(input("Enter the first Number:"))
b = int(input("Enter the Second Number:"))
print(a, "+", b, "=", a+b)
```

23 + 67 = 90

Enter the first Number: 89

Enter the Second Number: 09

89 + 9 = 98

03) WAP to check the type of the variable.

```
In [9]: a = 89
b = 8.9
str = "tempString"
print("type of a",type(a))
print("type of b",type(b))
print("type of str",type(str))
```

```
type of a <class 'int'>
type of b <class 'float'>
type of str <class 'str'>
```

04) WAP to calculate simple interest.

```
In [13]: p = int(input("Enter the total Amount:"))
n = int(input("Enter the time Period:"))
r = int(input("Enter the rate of Interest:"))
i = float((p*n*r)/100)
print("simple interest:",i)
```

```
Enter the total Amount: 1000
Enter the time Period: 10
Enter the rate of Interest: 10

simple interest: 1000.0
```

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

```
In [24]: import math
r = int(input("Enter the radius of the Circle:"))
perimeter = 2*math.pi*r
area = math.pi*r*r
print("area =",perimeter)
print("area =",area)
```

```
Enter the radius of the Circle: 7

area = 43.982297150257104
area = 153.93804002589985
```

06) WAP to calculate area of a triangle.

```
In [26]: b = int(input("Enter the base:"))
h = int(input("Enter the height:"))
area = b*h*0.5
print("area =",area)
```

```
Enter the base: 3
Enter the height: 6

area = 9.0
```

07) WAP to compute quotient and remainder.

```
In [31]: a = int(input("Enter the number:"))
b = int(input("the number is divide by:"))
quotient = a/b
remainder = a%b
print("quotient =",quotient)
print("remainder =",remainder)
```

Enter the number: 10
the number is divide by: 8

quotient = 1.25
remainder = 2

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

```
In [36]: f = float(input("Enter the temprature in Fahrenheit:"))
c = ((f-32)*5)/9
print("temprature in degree:",c)

c = float(input("Enter the temprature in degree:"))
f = ((c*9)/5)+32
print("temprature in Fahrenheit:",f)
```

Enter the temprature in Fahrenheit: 32

temprature in degree: 0.0

Enter the temprature in degree: 0

temprature in Fahrenheit: 32.0

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

```
In [42]: import math
x1,y1 = 5,6
x2,y2 = 8,9
distance = math.sqrt(math.pow((x1-x2),2)+math.pow((y1-y2),2))
print("distance :",distance)
```

distance : 4.242640687119285

10) WAP to print sum of n natural numbers.

```
In [60]: n = int(input("Enter the value of n :"))
sum = (n*(n+1))/2
print("sum :",sum)
```

Enter the value of n : 10

sum : 55.0

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

```
In [56]: n = int(input("Enter the value of n :"))
sum = (n*(n+1)*(2*n+1))/6
print("sum :",sum)
```

Enter the value of n : 3

sum : 14.0

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

```
In [66]: fn = "Vishal"
ln = "Baraiya"
res = fn+" "+ln
print(res)
```

Vishal Baraiya

13) WAP to swap two numbers.

```
In [68]: a = 23
b = 87
temp = a
a = b
b = temp
print("a =",a)
print("b =",b)
```

a = 87

b = 23

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

```
In [70]: d = int(input("Enter the distance in km :"))
print("in meters :",d*1000)
print("in feet :",d*3281)
print("in inches :",d*39370.1)
print("in cm",d*1000*100)
```

Enter the distance in km : 10

in meters : 10000

in feet : 32810

in inches : 393701.0

in cm 1000000

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

```
In [78]: d = int(input("Enter the day :"))  
m = int(input("Enter the month :"))  
y = int(input("Enter the year :"))  
print(d, "-", m, "-", y, sep="", end="\n")
```

Enter the day : 8
Enter the month : 9
Enter the year : 2024

8-9-2024

In []: