# CH-6: python fundamentals:TYPE-C

1) Write a program that displays a joke. But display the punchline only when the user presses enter (Hint. You may use input( ))

    sol:
```
print('what are two strongest days ')
input('press enter')
print('sunday and saturday because rest of them are week days')
```

    output:
```
what are two strongest days
press enter
sunday and saturday because rest of them are week days
```

2) Write a program to read today's date (only del part) from user. Then display how many days are left in the current month.

    sol:
```
m=int(input('enter the total no.of days in month:'))
d=int(input('enter today\'s date:'))
a=m-d
print(a,'days remains in this month')
```

    output:
```
enter the total no.of days in month:31
enter today's date:5
26 days remains in this month
```

3) Write a program that generates the following output :
```
5
10
9
```
Assign value 5 to a variable using assignment operator (=) Multiply it with 2 to generate 10 and subtract 1 to generate 9.

    sol:
```
a=5
print(a)
print(a*2)
print((a*2)-1)
```

    output:
```
5
10
9
```

4) Modify above program so as to print output as 5@10@9.

sol:
```
a=5
print(a,a*2,a*2-1,sep='@')
```

sol: 5@10@9

5) Write the program with maximum three lines of code and that assigns first 5 multiples of a number to 5 variables and then print them.

sol:
```
num=int(input('enter the number:'))
a,b,c,d=num*2,num*3,num*4,num*5
print(a,b,c,d)
```

output:
```
enter the number:5
10 15 20 25
```

6) Write a Python program that accepts radius of a circle and prints its area.

sol:
```
pi=3.14
radius= float(input('enter radius:'))
area=pi*radius**2
print('area of the circle is:',area)
```

output:
```
enter radius:1.24
area of the circle is: 4.828064
```

7) Write Python program that accepts marks in 5 subjects and outputs average marks.

sol:
```
m1 = int(input("Enter first subject marks: "))
m2 = int(input("Enter second subject marks: "))
m3 = int(input("Enter third subject marks: "))
m4 = int(input("Enter fourth subject marks: "))
m5 = int(input("Enter fifth subject marks: "))
avg = (m1 + m2+ m3+ m4 + m5) / 5
print("Average Marks =", avg)
```

output:
```
Enter first subject marks: 0
Enter second subject marks: 5
Enter third subject marks: 65
Enter fourth subject marks: 45
Enter fifth subject marks: 27
Average Marks = 28.4
```

8) Write a short program that asks for your height in centimetres and then converts your height to feet and inches. (1 foot = 12 inches, 1 inch = 2.54 cm).

sol:
```
h=float(input('height in cnetimtres:'))
inch=h/2.54
foot=inch/12
print("you height in inch is:",inch)
```

```
print("your height in foort is:", foot)
```

output:
```
height in cnetimtres:175.8
you height in inch is: 69.21259842519686
your height in foort is: 5.767716535433071
```

9) Write a program to read a number n and print $n^2$, $n^3$ and $n^4$.

sol:
```
n=int(input("enter the digit:"))
print(n**2)
print(n**3)
print(n**4)
```

output:
```
enter the digit:2
4
8
16
```

10) Write a program to find area of a triangle.

sol:
```
b=float(input('enter the base in metre:'))
h=float(input("enter the height in metre:"))
area=b*h/2
print('area of triangle is:',area,'metre square')
```

output:
```
enter the base in metre:10
enter the height in metre:25.35
area of triangle is: 126.75 metre square
```

11) Write a program to compute simple interest and compound interest.

sol:
```
p=int(input('enter the principle amount:'))
r=int(input('enter the rate of interest:'))
t=int(input('enter the no.of years:'))
si=(p*t*r)/100
ci=p*((1+(r/100))**t)
print('simple intersent is:',si)
print('compund interset is:',ci)
```

output:
```
enter the principle amount:5400
enter the rate of interest:5
enter the no.of years:10
simple intersent is: 2700.0
compund interset is: 8796.030984598186
```

12) Write a program to input a number and print its first five multiples.

sol:
```
n=int(input('enter the number:'))
for i in range(1,6):
```

```
        print(n*i)

    output
        enter the number:5
        5
        10
        15
        20
        25
```

13) Write a program to read details like name, class, age of a student and then print the details firstly in same line and then in separate lines. Make sure to have two blank lines in these two different types of prints.

```
    sol:
        name=input('enter the name:')
        cls=input('enter the class:')
        age=int(input("enter the age:"))
        print(name,cls,age)
        print()
        print()
        print(name)
        print(cls)
        print(age)

    output:
        enter the name:tommy
        enter the class:11 g
        enter the age:16
        tommy 11 g 16


        tommy
        11 g
        16
```

14) Write a program to input a single digit(n) and print a 3 digit number created as <n(n + 1)(n + 2)> e.g., if you input 7, then it should print 789. Assume that the input digit is in range 1-7.

```
    sol:
        n=int(input("enter the num from 1 to 7:"))
        if n<8 and n>0:
            sec=n+1
            thi=n+2
            print(n,sec,thi,sep='')
        else:
            print("n should be between 1 and 7")

    output:
        enter the num from 1 to 7:5
        567
```

15) Write a program to read three numbers in three variables and swap first two variables with the sums of first and second, second and third numbers respectively.

```
    sol:
        a=int(input('enter the num1:'))
```

```
b=int(input('enter the num2:'))
c=int(input('enter the num3:'))
d=a+b
e=b+c
a=d
b=e
print(a,b,c)
```

output:
```
enter the num1:5
enter the num2:4
enter the num3:8
9 12 8
```