

## Assignment-1

1) Write a Python Program using function to calculate the Simple interest. Suppose the Customer is a Senior Citizen. She is being offered 15% of interest.

Enter the Principal amount : 200000

Enter the no. of years : 3

Gender (m/f): m.

Sol: def SimpleInterest (P, r, t):

$$S-i = (P * r * t) / 100$$

return S-i

Simple interest (200000, 0.15, 3)

Sample output:

Interest : 600000  
=

2) In an organization they decide to give bonus to all the employee on New Year. A 5% bonus on salary is given to the grade A workers and 10% bonus on salary to the grade B. workers. Write a Python Program to enter the Salary and grade of the employee?

divided into four seasons: Spring, Summer

Program:

a = input('Enter your name here:')

b = int(input('Your Salary here: '))

C = input('Your gender here (M/F):')

if b < 10000 and C == 'M':

Print(str(a) + 'Your Salary with bonus is ' + str(b \* 1.01))

elif b < 10000 and C == 'F':

Print(str(a) + 'Your Salary with bonus is ' + str(b \* 1.12))

if b >= 10000 and C == 'M':

Print(str(a) + 'Your Salary with bonus is ' + str(b \* 1.05))

elif b >= 10000 and C == 'F':

Print(str(a) + 'Your Salary with bonus is ' + str(b \* 1.1)).

Sample output:

Enter the Grade : B

Enter the Salary : 50000

Bonus = 5000.0

Total Salary = 55000.0

=

The year is divided into four seasons: Spring, Summer, fall and winter. While the exact dates that the seasons change vary a little bit from year to year because of the way that the calendar is constructed.

Program:

```
month = input("Input the month: ")
```

```
day = input (input("Input the day: "))
```

```
if month in ('January', 'February', 'March'):
```

```
    Season = 'Winter'
```

```
elif month in ('April', 'May', 'June'):
```

```
    Season = 'Spring'
```

```
elif month in ('July', 'August', 'September'):
```

```
    Season = 'Summer'
```

```
else:
```

```
    Season = 'autumn'
```

```
if (month == 'March') and (day > 19):
```

```
    Season = 'Spring'
```

```
elif (month == 'June') and (day > 20):
```

```
    Season = 'Summer'
```

```
elif (month == 'SeptemberDecember') and (day > 21):
```

```
    Season = 'autumn'
```

```
elif (month == 'December') and (day > 20):
```

```
    Season = 'Winter'
```

```
Print ("Season is", Season)
```



Output:

Input the month : April

Input the day : 15

Season is Spring.

④ Write a Python Code for any two Patterns.

Sol: i) Star Pattern:

```
def Pypart(n):  
    for i in range(0,n):  
        for j in range(0,i+1):  
            print("*", end=" ")  
        print("\n")  
    n=5  
    Pypart(n).
```

Output:

```
*  
* *  
* * *  
* * * *  
* * * * *
```

## "Triangle Pattern

```
def triangle (n):
```

```
    k = n - 1
```

```
    for i in range (0, n):
```

```
        for j in range (0, k):
```

```
            print (end = " ")
```

```
        k = k - 1
```

```
        for j in range (0, i+1):
```

```
            print ("*", end = " ")
```

```
        print ("\n")
```

```
    n = 5
```

```
    triangle (n).
```

Output:

```
          *
         * *
        * * *
       * * * *
      * * * * *
```

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