Basic Programming assignment 5

1. Write a Python Program to find LCM ?

In [1]:
```
def findTheLcm(x_term,y_term):
    if x_term > y_term:
        greater = x_term
    else:
        greater = x_term
    while True:
        if((greater%x_term == 0) and (greater%y_term == 0)):
            lcm = greater
            break
        else:
            greater +=1
    print(f'The LCM of {x_term},{y_term} is {lcm}')

findTheLcm(3,6)
findTheLcm(5,2)
findTheLcm(5,100)
```

```
The LCM of 3,6 is 6
The LCM of 5,2 is 10
The LCM of 5,100 is 100
```

2. Write a Python Program to find HCF ?

In [2]:
```
def findTheHcf(x_term,y_term):
    if x_term>y_term:
        smaller = y_term
    else:
        smaller = x_term
    for ele in range(1,smaller+1):
        if((x_term%ele == 0) and (y_term%ele == 0)):
            hcf = ele
    print(f'The HCF of {x_term},{y_term} is {hcf}')

findTheHcf(6,12)
findTheHcf(2,3)
findTheHcf(10,23)
```

```
The HCF of 6,12 is 6
The HCF of 2,3 is 1
The HCF of 10,23 is 1
```

3. Write a Python Program to Convert Decimal to Binary, Octal and Hexadecimal ?

In [3]:
```
def DecimalToOther():
    num = int(input('Enter a Number: '))
    print(f'Binary Number -> {bin(num)}')
    print(f'Octal Number -> {oct(num)}')
    print(f'Hexadecimal Number -> {hex(num)}')

DecimalToOther()
```

```
Enter a Number: 2711
Binary Number -> 0b101010010111
Octal Number -> 0o5227
Hexadecimal Number -> 0xa97
```

4. Write a Python Program to Find the ASCII value of a Character ?

In [4]:
```
def charToAscii():
    char = input('Enter a Character: ')
    if len(char) > 1:
        print('Please Enter a Single Character')
    else:
        print(f'Ascii Character of {char} is {ord(char)}')

charToAscii()
```

```
Enter a Character: #
Ascii Character of # is 35
```

5. Write a Python Program to Make a Simple Calculator with 4 Basic Mathematical operations ?

In [1]:

```
import operator

ops = { "+": operator.add, "-": operator.sub, "*":operator.mul, "/":operator.truediv }

print('Select a Arithmetic Operation: \
        \n1.Addition(+)\
        \n2.Division(-)\
        \n2.Multiplication(*)\
        \n4.Division(/)\
        \n3.Stop(0)\n')


while True:
    operator = input('Enter a arithmetic operation -> ')
    if operator == '0':
        print("Program Stopped successfully")
        break
    elif operator not in ['+','-','*','/']:
        print("Please enter a valid operator")
    else:
        num_1 = int(input('\nEnter 1st Number: '))
        num_2 = int(input('Enter 2nd Number: '))
        print(f'{num_1}{operator}{num_2}={ops[operator](num_1,num_2)}\n')
```

```
Select a Arithmetic Operation:
1.Addition(+)
2.Division(-)
2.Multiplication(*)
4.Division(/)
3.Stop(0)

Enter a arithmetic operation -> +

Enter 1st Number: 10
Enter 2nd Number: 25
10+25=35

Enter a arithmetic operation -> -

Enter 1st Number: 10
Enter 2nd Number: 25
10-25=-15

Enter a arithmetic operation -> *

Enter 1st Number: 10
Enter 2nd Number: 25
10*25=250

Enter a arithmetic operation -> /

Enter 1st Number: 10
Enter 2nd Number: 25
10/25=0.4

Enter a arithmetic operation -> 0
Program Stopped successfully
```