# Assignment 5

#### 1. Write a Python Program to find LCM ?

**Answer**:

**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 ?

**Answer**:

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 ?

**Answer**:

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: 55252555  
Binary Number -> 0b11010010110001011001001011  
Octal Number -> 0o322613113  
Hexadecimal Number -> 0x34b164b

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

**Answer**:

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 64

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

**Answer:**

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: 20  
10+20=30  
  
Enter a arithmetic operation -> -  
  
Enter 1st Number: 10  
Enter 2nd Number: 20  
10-20=-10  
  
Enter a arithmetic operation -> \*  
  
Enter 1st Number: 10  
Enter 2nd Number: 20  
10\*20=200  
  
Enter a arithmetic operation -> /  
  
Enter 1st Number: 10  
Enter 2nd Number: 20  
10/20=0.5  
  
Enter a arithmetic operation -> 0  
Program Stopped successfully