1 Python Basic Programming Assignment - 5

1.1 1. Write a Python Program to Find LCM?

In [2]:
```
num1 = 20
num2 = 60
for i in range(max(num1, num2), 1 + (num1 * num2)):
    if i % num1 == i % num2 == 0:
        lcm = i
        break
print("LCM of", num1, "and", num2, "is", lcm)
```

```
LCM of 20 and 60 is 60
```

1.2 2. Write a Python Program to Find HCF?

In [4]:
```
# Python program to find H.C.F of two numbers

# define a function
def compute_hcf(x, y):

# choose the smaller number
    if x > y:
        smaller = y
    else:
        smaller = x
    for i in range(1, smaller+1):
        if((x % i == 0) and (y % i == 0)):
            hcf = i
    return hcf

num1 = 16
num2 = 64

print("The H.C.F. is", compute_hcf(num1, num2))

```

```
The H.C.F. is 16
```

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

In [5]:
```
# Python program to convert decimal into other number systems
dec = 344

print("The decimal value of", dec, "is:")
print(bin(dec), "in binary.")
print(oct(dec), "in octal.")
print(hex(dec), "in hexadecimal.")

```

```
The decimal value of 344 is:
0b101011000 in binary.
0o530 in octal.
0x158 in hexadecimal.
```

1.4 4. Write a Python Program To Find ASCII value of a character?

In [6]:
```
# Program to find the ASCII value of the given character

c = 'S'
print("The ASCII value of '" + c + "' is", ord(c))

```

```
The ASCII value of 'S' is 83
```

1.5 5. Write a Python Program to Make a Simple Calculator with 4 basic mathematical operations?

In [7]:
```
# This function adds two numbers
def add(x, y):
    return x + y

# This function subtracts two numbers
def subtract(x, y):
    return x - y

# This function multiplies two numbers
def multiply(x, y):
    return x * y

# This function divides two numbers
def divide(x, y):
    return x / y


print("Select operation.")
print("1.Add")
print("2.Subtract")
print("3.Multiply")
print("4.Divide")

while True:
    # take input from the user
    choice = input("Enter choice(1/2/3/4): ")

    # check if choice is one of the four options
    if choice in ('1', '2', '3', '4'):
        try:
            num1 = float(input("Enter first number: "))
            num2 = float(input("Enter second number: "))
        except ValueError:
            print("Invalid input. Please enter a number.")
            continue

        if choice == '1':
            print(num1, "+", num2, "=", add(num1, num2))

        elif choice == '2':
            print(num1, "-", num2, "=", subtract(num1, num2))

        elif choice == '3':
            print(num1, "*", num2, "=", multiply(num1, num2))

        elif choice == '4':
            print(num1, "/", num2, "=", divide(num1, num2))

        # check if user wants another calculation
        # break the while loop if answer is no
        next_calculation = input("Let's do next calculation? (yes/no): ")
        if next_calculation == "no":
          break
    else:
        print("Invalid Input")
```

```
Select operation.
1.Add
2.Subtract
3.Multiply
4.Divide
Enter choice(1/2/3/4): 1
Enter first number: 12
Enter second number: 12
12.0 + 12.0 = 24.0
Let's do next calculation? (yes/no): no
```

In [ ]:
```
1
```