Assignment - 6

1) Convert Binary number to decimal

→

```
b_num = list(input("Input a binary number:"))
value = 0
for i in range(len(b_num)):
    digit = b_num.pop()
    if digit == '1':
        value = value + pow(2, i)
print("The decimal value of the number is", value)
```

2) Generate first N number of Fibonacci numbers. Take N value from user.

→

```
nterms = int(input("How many terms?"))
# first two terms
n1, n2 = 0, 1
count = 0
if nterms <= 0
print("Please enter a positive integer")
elif nterms == 1:
print("Fibonacci sequence upto", nterms, ":")
print(n1)
else:
```

```
print ("Fibonacci sequence:")
while count < n terms
    print(n1)
    nth = n1+n2
# update values
    n1 = n2
    n2 = nth
    count += 1
```

3) Display multiplication table of k. Take k value from user.

→

```
num = int(input("Enter the number:"))
print("Multiplication Table of", num)
for i in range(1, 11):
print(num, "x", i, "=", num * i)
```

4) Take 10 integers from keyboard using loop and print their average value on the screen

→

```
int main()
{
```

```
using namespace std;
 int sum = 0, i, n;
for (i = 0; I < 10; i++)
{
cout << "Enter number" << endI;
 cin >> n;
 sum = sum + n;
 }
 count << "Sum is" << sum << endl;
 return 0;
 }
```

Print the following pattern:

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

→

```
def pypart (n);
   for i in range (0, n):
    for j in range (0, i+1):
    print ("* ", end = " ")
    print ("\r")
```

5) Write a program to find GCD or HCF of given two numbers.

→

```
def compute_hcf(x, y):
    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 = 54
num2 = 24
print("The H.C.F is", compute_hcf(num1, num2))
```

6) Write a python program that accepts a word from the user and reverse it.

→

```
word = input("Enter a word to reverse:")
for char in range(len(word) - 1, -1, -1):
    print(word[char], end = "")
    print("\n")
```

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7) Write a python program to count the number of even and odd numbers from a series of numbers.

→

```
NumList = []
Even_count = 0
Odd_count = 0
Number = int(input(" please ent the Total number
                   of list elements :"))
for i in range (1, Number+1):
    value = int(input(" please enter the value of
                %d Element :"%i))
    NumList.append(value)
for j in range(Number):
    if (NumList[j] % 2 ==0):
    Even_count = Even_count +1
else
    Odd_count = Odd_count +1
print("\n Total number of Even numbers in this
      list =", Even_count)
print("Total number of Odd numbers in this
      list =", Odd_count)
```

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5) Write a python program that prints all the numbers from 0 to 6 except 3 and 6

→

```
for x in range(6):
    if (x == 3 or x == 6):
        continue
    print(x, end = ' ')
print("\n")
```