Module - 3 Chapter - 1

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1) Convert binary number to decimal

```
def binary_to_decimal(binary):
    i, integer = 0, 0
    size = len(binary)
    while i < len(binary):
        integer += int(binary[size - 1 - i]) * pow(2, i)
        i += 1
    print(integer)
binary_to_decimal("001")
binary_to_decimal("010")
binary_to_decimal("10010")
```

2) Generate first n number of fibonacci numbers. take n value from user

```
def fibonacci(n):
    f1 = 0
    f2 = 1
    if n < 1:
        printf("Incorrect input")
    for x in range(0, n):
        print(f2, " ")
    next = f1 + f2
    f1 = f2
    f2 = next
n = int(input("enter the number"))
Fibonacci(n)
```

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

```
k = int(input("enter the number"))
for i in range (1, 11):
print(k, 'x', i, '=', k*i)
```

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

```
print("Input some integers to calculate their average.")
count = 0
sum = 0
for i in range (0,10):
number = int(input(" "))
sum = sum + number
count += 1
if count == 0:
print("Input some numbers")
else:
print("Average of the above numbers are:", sum/
                                    (count))
```

4) print the following pattern using loop

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

```
i=1
while i<=4:
print ("*"*i)
 i= i+1
```

5) write a program to find G.C.D & HCF of given two numbers

```
def gcd(a,b):
 if (b==0):
return a
return gcd (b, a%b)
a= int(input("enter the first number:"))
b= int(input ("enter the second number:"))
if(gcd(a,b)):
printf ('GCD of',a, 'and', b, 'is', gcd(a,b))
else:
Print ('not found')
```

6) write a python program to reverse a string

```
 def reverse(s):
  if len(s)==0:
return s
else:
return reverse (s[1:])+s[0]
s= input ("enter the string:")
print (" the original string is:")
print (s)
print (" the reverse string is:")
```

print (reverse (s1))

7) write a python program to count the numbe of even & odd numbers from a series of numbers

```
list1 = [21, 23, 24, 12, 13, 18]
even, odd = 0, 0
for num in list1:
    if n%2 == 0:
        even+ = 1
else:
    odd+ = 1
print("Even numbers in the list:", even)
print("odd numbers in the list", odd)
```

8) write a python program that prints all the numbers from 0 to 6 except 3 & 6

```
for i in range (0, 7):
    if (i == 3 or i == 6):
        continue
    print (i)
```