

ASSIGNMENT

1) Convert binary number into decimal

a) `binary_string=input('enter a binary number')`

`try:`

`decimal=int(binary_string,2)`

`print('the decimal value is',decimal)`

`except ValueError:`

`print('invalid binary number')`

Output:

enter a binary number 10

the decimal value is 2

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

a)

`def FibRecursion(n):`

`if n<=1:`

`return n`

`else:`

`return(FibRecursion(n-1)+FibRecursion(n-2))`

`nterms=int(input('enter the terms'))`

`if nterms<=0:`

`print('Please enter a positive integer')`

`else:`

`print('fibonacci sequence')`

`for i in range(nterms):`

`print(FibRecursion(i))`

Output:

enter the terms 5

fibonacci sequence

0

1

1
2
3

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

a) `n=int(input('enter n value'))`

`for i in range(1,11):`

`print(n,'x',i,'=',n*i)`

Output:

enter n value 2

2 x 1 = 2

2 x 2 = 4

2 x 3 = 6

2 x 4 = 8

2 x 5 = 10

2 x 6 = 12

2 x 7 = 14

2 x 8 = 16

2 x 9 = 18

2 x 10 = 20

4) Take 10 integers from keyboard using loop and print their

Average value on the screen.

a) `print('input 10 integers')`

`count=0`

`sum=0.0`

`number=1`

`while number!=0:`

`number=int(input(""))`

`sum=sum+number`

`count+=1`

`if count==0:`

`print('input some numbers ')`

```
else:  
    print('average',sum/(count-1))
```

Output:

input 10 integers

10

10

10

10

10

10

10

10

10

10

10

0

average 10.0

Print the value following patterns using loop:

*

**

```
a)rows=int(input('enter number of rows'))
for i in range(0,rows):
    for j in range(0,i+1):
        print("*",end="")
    print("\r")
```

Output:

enter number of rows 4

*

**

5)write a program to GCD or HCF of given two numbers

```
a)def gcd(a,b):
```

```
    if b==0:
```

```
        return a
```

```
    else:
```

```
        return gcd(b,a%b)
```

```
a=int(input('enter a value'))
```

```
b=int(input('enter b value'))
```

```
GCD=gcd(a,b)
```

```
print('GCD is:')
```

```
print(GCD)
```

Output:

enter a value 2

enter b value 12

GCD is:

2

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

a) s=(input("enter a word"))

s=s[::-1]

print(s)

Output:

enter a word assignment

tnemngissa

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

a)

NumList=[]

Even_count=0

Odd_count=0

Number=int(input('Please enter 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('total number of even numbers in the list = ',Even_count)

print('total number of odd numbers in the list = ',Odd_count)

Output:

Please enter the total number of list elements: 5

Please enter the value of 1 element: 12

Please enter the value of 2 element:13

Please enter the value of 3 element:14

Please enter the value of 4 element:14

Please enter the value of 5 element:17

total number of even numbers in the list = 3

total number of odd numbers in the list = 2

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

a)

```
for x in range(6):
```

```
    if x==3 or x==6:
```

```
        continue
```

```
    print(x,end="")
```

```
print('\n')
```

Output:

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