

## **1. Addition of two binary strings**

### **With Inbuilt function:-**

```
a=input()
b=input()
ans=bin(int(a,2) + int(b,2))
print(str(ans[2:]))
```

### **Without inbuilt function:-**

```
a=input("enter binary string1 :")
b=input("enter binary string2 :")
result=""
i=len(a)-1
j=len(b)-1
carry=0
while i >= 0 or j >= 0:
    sum = carry
    if i >=0:
        sum = sum+ord(a[i]) - ord('0')
    if j >= 0:
        sum = sum+ord(b[j]) - ord('0')
    i,j=i-1,j-1
    if sum > 1:
```

```
carry = 1
```

```
else:
```


```
carry=0
```

```
result = result + str(sum%2)
```

```
if carry != 0:
```

```
result = result + str(carry)
```

```
print(result[::-1])
```

main.py		Shell
<pre>1 a=input("enter binary string1 :") 2 b=input("enter binary string2 :") 3 result="" 4 i=len(a)-1 5 j=len(b)-1 6 carry=0 7 while i &gt;= 0 or j &gt;= 0: 8     sum = carry 9     if i &gt;= 0: 10        sum = sum+ord(a[i]) - ord('0') 11    if j &gt;= 0: 12        sum = sum+ord(b[j]) - ord('0') 13    i,j=i-1,j-1 14    if sum &gt; 1: 15        carry = 1 16    else: 17        carry=0 18    result = result + str(sum%2) 19 if carry != 0: 20    result = result + str(carry) 21 print(result[::-1])</pre>		<pre>enter binary string1 :11 enter binary string2 :1 100 &gt;  </pre>


## 2. Reverse words in given string

```
strg=input("Enter the string :")
```

```
words = strg.split(' ') #split into word
```

```
reverse_strg = ' '.join(reversed(words))
```

```
print (reverse_strg)      #printing string with reverse word
```

main.py		Shell
<pre>1 strg=input("Enter the string :") 2 words = strg.split(' ') #split into word 3 reverse_strg = ' '.join(reversed(words)) 4 print (reverse_strg)      #printing string with reverse word</pre>		<pre>Enter the string :I bought a pen today today pen a bought I &gt;  </pre>

### 3. Largest lucky number(frequency)

```
lst1=list(map(int,input("Enter space seprated numbers :").split(' ')))

lst2=[]

for i in lst1:

    if lst1.count(i)==i:




        lst2. append (int(i))

if len(lst2) > 0:

    print (max(lst2))

else:

    print ("-1")
```

main.py	  	Shell
<pre>1 lst1=list(map(int,input("Enter space seprated numbers :").split(' '))) 2 lst2=[] 3 for i in lst1: 4     if lst1.count(i)==i: 5         lst2. append (int(i)) 6 if len(lst2) &gt; 0: 7     print (max(lst2)) 8 else: 9     print ("-1")</pre>		<pre>Enter space seprated numbers :1 2 2 3 3 3 3 &gt;  </pre>

### 4.fake calculator (addition of two numbers without carry)

```
import math
```

```
a= int(input("Enter number 1:"))
```

```
b = int(input("Enter number 2:"))
```

```
sum1 = 0
result = 0
place = 1
while (a or b) :
    sum1 = ((a % 10) + (b % 10))
    sum1 = sum1 % 10          # Neglect carry
    result = result + (sum1 *place)
    a = math.floor(a / 10)
    b = math.floor(b / 10)
    place = place* 10  # Update place value
print (result)
```

main.py	  	Shell
<pre>1 import math 2 a= int(input("Enter number 1:")) 3 b = int(input("Enter number 2:")) 4 sum1 = 0 5 result = 0 6 place = 1 7 while (a or b) : 8     sum1 = ((a % 10) + (b % 10)) 9     sum1 = sum1 % 10          # Neglect carry 10    result = result + (sum1 *place) 11    a = math.floor(a / 10) 12    b = math.floor(b / 10) 13    place = place* 10  # Update place value 14 print (result)</pre>		<pre>Enter number 1:23 Enter number 2:58 71 &gt;  </pre>