

BLOOM FILTER:

```
a = [0,0,0,0,0,0,0,0,0,0]
```

```
def hash(a):
```

```
    h1=(6*a +1)%10
```

```
    h2=(2*a +1)%10
```

```
    return h1,h2
```

```
def hcal(word):
```

```
    print([word[i:i+1] for i in range(0, len(word))])
```

```
    s=0
```

```
    for i in range(len(word)):
```

```
        s+= ord(word[i])
```

```
    return s
```

```
word=input()
```

```
s=hcal(word)
```

```
s1,s2 = hash(s)
```

```
print(s1,s2)
```

```
a[s1]=a[s2]=1
```

```
print(a)
```

```
ip=input()
```

```
s=hcal(ip)
```

```
s1,s2=hash(s)
```

```
print(s1,s2)
```

```
if(a[s1]==1 and a[s2] == 1):
```

```
    print("It is a Spam")
```

```
else:
```

```
    print("Not a Spam")
```

OUTPUT:

```
C:\Users\Lenovo\Desktop>python bloom.py
gawd
['g', 'a', 'w', 'd']
5 9
[0, 0, 0, 0, 0, 1, 0, 0, 0, 1]
cats
['c', 'a', 't', 's']
3 5
Not a Spam

C:\Users\Lenovo\Desktop>python bloom.py
cats
['c', 'a', 't', 's']
3 5
[0, 0, 0, 1, 0, 1, 0, 0, 0, 0]
cats
['c', 'a', 't', 's']
3 5
It is a Spam
```