In [6]:

```python
import math
x1=[7,7,3,1]
x2=[7,4,4,4]
y=['bad','bad','good','good']
dis={}
a,b=map(int,input('Enter x1,x2 :').split(','))
for i in range(len(x1)):
    dis[math.sqrt( ((a-x1[i])**2) + ((b-x2[i])**2) ) ]=y[i]
print(dis)
```

```
Enter x1,x2 :3,7
{4.0: 'bad', 5.0: 'bad', 3.0: 'good', 3.605551275463989: 'good'}
```

In [17]:

```python
mykeys = list(dis.keys())
mykeys.sort()
dis2 = {i: dis[i] for i in mykeys}
dis2
```

Out[17]:

```
{3.0: 'good', 3.605551275463989: 'good', 4.0: 'bad', 5.0: 'bad'}
```

In [18]:

```python
res={}
k=int(input('Enter k value :'))

for i in dis2:
    if k<=0:
        break
    else:
        print(dis2[i])
        if dis2[i] in res:
            res[dis2[i]]+=1
        else:
            res[dis[i]]=1
    k=k-1
print(res)
```

```
Enter k value :2
good
good
{'good': 2}
```

In [19]:

```python
print(max(res, key=lambda x: res[x]))
```

```
good
```

In [ ]:

In [ ]: