#\twrite a python program to store names and mobile numbers of your friends in sorted order on names search your friend

#from list using binary search(recursive and non-recursive) insert friend if not present in phonebook

def binary\_search(list1, key):

    start=0

    end = len(list1)

    while start < end:

        mid = (start + end)//2

        if list1[mid] > key:

            end = mid

        elif list1[mid] < key:

            start = mid + 1

        else:

            return mid

    return -1

dict1={}

while True:

    data=input("Enter name and mobile number seperated by comma")

    if 'Exit' == data:

        break

    name,num=data.split(",")

    num=int(num)

    dict1[num]=name

print(dict1)

list1=dict1.keys()

list1=list(list1)

list1.sort()

print(list1)

key = int(input("The number to search for:")

index = binary\_search(list1, key)

if index <0:

    print('{}was not found.'.format(key))

else:

    print('{} was found at index {}.'.format(key,index))

    print("datails of number found")

    print(dict1[key])