‘’’

This function takes two arguments,
Data1 and data2, which contain
Key-value pairs. All key-value
Pairs within data1 are unique.
Similarly, all key-value pairs
Within data2 are unique. However,
There may be key-value pairs (k, v1)
In data1 and (k, v2) in data2 with a
Common key k. In this case, v1 and
V2 may be the same, or v1 and v2 may
Be different.

This function should modify only
Data1 and return a (possibly empty)
Dictionary as follows:
For every key-value pair (k, v2) in
Data2, if no key-value pair with key
K exists in data1, then the pair
(k, v2) should be added to data1.
Otherwise, there is a unique pair
(k, v1) already in data1. If v1 and
V2 are different, the pair (k, v1)
Should be removed from data1 and the
Key-value pair (k, [v1, v2]) should
Be added to the (initially empty)
Dictionary to be returned.

In this implementation, data1 is a

```
Dictionary and data2 is a list where
Each key-value pair in data2 is also
A list [key, value] of length 2.
’’’

Def uniqueUpdate(data1, data2):
   # Initially empty dictionary
   dupKeys = {}

   # Examine every (k, v2) pair in data2
   For [k, v2] in data2:
      # Check if there is a key-value
      # pair with key = k in data1
      If k in data1:
         V1 = data1[k]
         # (k, v1) in dict1
         # Check if v1 != v2
         If v1 != v2:
            # Add (k, [v1, v2])
            # to dictionary
            dupKeys[k] = [v1, v2]
            # Remove (k, v1) from data1
            Del data1[k]
      Else:
         # Add (k, v2) to data1
         Data1[k] = v2
   # After processing all (k, v2) in
   # data2, return the dictionary
   Return dupKeys
```

‘’’

Visualize this function on an example:

https://tinyurl.com/...

‘’’

DO NOT MODIFY BELOW THIS LINE!

‘’’

This part of the code reads input in

The following format:

Line 1: A positive integer n1

Representing the number of key value

Pairs in data1

Lines 2 to n1+1: Two integers k v

Per line representing the key and

Value (these n1 key value pairs are

Added to data1)

Line n1+2: A positive integer n2

Representing the number of key value

Pairs in data2

Lines n1+3 to n1+n2+2: Two integers

K and v per line representing the

Key and value (these n2 key value

Pairs are added to data2)

This also prints the output in the

Following format after calling the

uniqueUpdate function:

data1

data2 (should remain the same)

dup (the dictionary returned)

‘’’

```
Import sys
If _name_ == ‘_main_’:
   Data1 = {}
   N1 = int(input())
   For _ in range(n1):
      K, v = map(int, input().split())
      If k in data1:
         Sys.exit(“Illegal: data1”)
      Data1[k] = v
   Data2 = []
   N2 = int(input())
   For _ in range(n2):
      K, v = map(int, input().split())
      For [k2, v2] in data2:
         If k2 == k:
            Sys.exit(“Illegal: data2”)
      Data2.append([k, v])
   Dup = uniqueUpdate(data1, data2)
   Print(data1)
   Print(data2)
   Print(dup)
```