Program 2:

Question:

Write a program for congestion control using Leaky bucket algorithm.

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(4) write a program for congestion control using
  Leary bucket algorithm was 121 21 21 100 200 das
 storage = 0 17m < (7777x0 = 9m : 5x3 - 4mm
 noofqueries: mt (mput ("Enter no of queries: "))
  bucketsize = mt (mput ("Enter bucket size : "))
 imputphtsize = int (mput ("Enter input packet size: "))
 Output pttsize = mt (mput ("Enter output packet size: "))
 for i in range (0, noof queries):
              sizeleft = bucketsize - stronge
               if imputptisize ( = sizeleft:
                              storage += inputpktsize
                             point ("Packet loss = ", imputphtsize)
             point (f" Bucket 813e = 18torage 3 out of bucket 813e
                                                      Eddlo = & bucketsizes )
          storage -= output pktsize. + most stad many
  Enter no of queries: 10 south mounts
  enter bucket size: 5 200 - 500 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600 - 600
  Enter input packet 8138:41
 Enter output packet size: 6
 Bucket size = 4 out of boucket size = 5
 Bucket size = 2 out of bucket size = 5
  Bucket size = 0 out of bucket size =5
  Bucket size = - g out of bucket 8136 = 5
  Bucket size = -4 out of bucket size = 5
Bucket size = -6 out of sucket 9138 = 5
Bucket size = -8 out of bucket size = 5
Bucket size = -10 out of bucket size = 5
Bucket 8138 -12 out of bucket 8138 = 5
Bucket size - 14 out of bucket size = 5
```

Code:

```
storage=0
noofqueries=int(input("Enter no of queries:"))
bucketsize=int(input("Enter bucket size:"))
```

```
inputpktsize=int(input("Enter input packet size:"))
outputpktsize=int(input("Enter output packet size:"))
for i in range(0,noofqueries):
    sizeleft=bucketsize-storage
    if inputpktsize<=sizeleft:
        storage+=inputpktsize
    else:
        print("Packet loss=", inputpktsize)
    print(f"Bucket size={storage} out of bucket size={bucketsize}")
    storage-=outputpktsize</pre>
```

Output:

```
PS C:\Users\Dell\OneDrive\Desktop\code> python leakybucketalgorithm.py
Enter no of queries:10
Enter bucket size:5
Enter input packet size:4
Enter output packet size:6
Bucket size=4out of bucket size=5
Bucket size=2out of bucket size=5
Bucket size=0out of bucket size=5
Bucket size=-2out of bucket size=5
Bucket size=-4out of bucket size=5
Bucket size=-4out of bucket size=5
Bucket size=-6out of bucket size=5
Bucket size=-14out of bucket size=5
Bucket size=-14out of bucket size=5
```