Program 2:

Write a program for congestion control using Leaky bucket algorithm.

Observation:

print(f"Incoming packet size ({packet-size} bytes) is greater than bucket capacity ({bucket_size} bytes) - PACKET REJECTED")
continue

print(f"Bytes remaining to transmit: {packet_size[i]}")
send_packet(packet_size[i], output_rate)

if __name__ == "__main__":
    main()

OUTPUT:

```
enter no of queries: 10
enter bucket size: 5
enter input packet size: 4
enter output packet size: 6
Bucket size = 4 out of bucket size = 5
Bucket size = 2 out of bucket size = 5
Bucket size = 0 out of bucket size = 5
Bucket size = -2 out of bucket size = 5
Bucket size = -4 out of bucket size = 5
Bucket size = -6 out of bucket size = 5
Bucket size = -8 out of bucket size = 5
Bucket size = -10 out of bucket size = 5
Bucket size = -12 out of bucket size = 5
Bucket size = -14 out of bucket size = 5
```

Code:

```python
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
```

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=-6out of bucket size=5
Bucket size=-14out of bucket size=5
```