8.Implement congestion control using leaky bucket algorithm

```
import java.io.*;
import java.util.*;
class Leakybucket {
        public static void main(String[] args)
        {
                int no_of_queries, storage, output_pkt_size;
                int input_pkt_size, bucket_size, size_left;
  // initial packets in the bucket
                storage = 0;
// total no. of times bucket content is checked
                no_of_queries = 4;
// total no. of packets that can be accommodated in the bucket
                bucket_size = 10;
// no. of packets that enters the bucket at a time
                input_pkt_size = 4;
// no. of packets that exits the bucket at a time
                output_pkt_size = 1;
                for (int i = 0; i < no_of_queries; i++) {
                        size_left = bucket_size - storage; // space left
                        if (input_pkt_size <= (size_left)) {
                                storage += input_pkt_size;
                        }
                        else {
                                System.out.println("Packet loss = "+ input_pkt_size);
                        }
                        System.out.println("Buffer size= " + storage+ " out of bucket size= "
                                                        + bucket_size);
```

```
                    storage -= output_pkt_size;
                }
            }
}
```

Output:

Buffer size= 4 out of bucket size= 10

Buffer size= 7 out of bucket size= 10

Buffer size= 10 out of bucket size= 10

Packet loss = 4

Buffer size= 9 out of bucket size= 10