COMPUTER NETWORKS LAB

EXPERIMENT- 8

Aim:- Write a program for congestion control using Leaky bucket algorithm.

```
#include<bits/stdc++.h>
using namespace std;
int main()
{
   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++) //space left
 {
 size_left = bucket_size - storage;
 if(input_pkt_size <= size_left)
 {
    // update storage
  storage += input_pkt_size;
  printf ("Buffer size= %d out of bucket size= %d\n", storage, bucket_size);
 }
 else
 {
  printf("Packet loss = %d\n", (input_pkt_size-(size_left)));
   // full size
  storage=bucket_size;
  printf("Buffer size= %d out of bucket size= %d\n", storage, bucket_size);
 }
 storage -= output_pkt_size;
}
 return 0;
}
```

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 = 3
Buffer size= 10 out of bucket size= 10
Difference between Leaky and Token buckets –