Avani.A (1BM22CS059)

EXPERIMENT-14

Write a program for congestion control using Leaky bucket algorithm.

Code and Output:

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code:
capacity = 10
input_size = 4
out_size = 1
storage = 0
iterations = 4

for i in range(0,iterations):
    size_left = capacity - storage
    if input_size <= size_left:
        storage += input_size
    else:
        print("Packet lost: ",input_size)
    print(f"Buffer size = {storage} out of capacity {capacity}")
    storage -= 1</pre>
```

Output:

```
Output
                                                                                           Clear
packet[0]:83 bytes
packet[1]:86 bytes
packet[2]:77 bytes
packet[3]:15 bytes
packet[4]:93 bytes
Enter the Output rate:30
Enter the Bucket Size:85
Incoming Packet size: 83
Bytes remaining to Transmit: 83
Packet of size 30 Transmitted---Bytes Remaining to Transmit: 53
Packet of size 30 Transmitted---Bytes Remaining to Transmit: 23
Packet of size 23 Transmitted---Bytes Remaining to Transmit: 0
Incoming Packet size: 86
Incoming packet size (86bytes) is Greater than bucket capacity (85bytes)-PACKET REJECTED
Incoming Packet size: 77
Bytes remaining to Transmit: 77
Packet of size 30 Transmitted---Bytes Remaining to Transmit: 47
Packet of size 30 Transmitted---Bytes Remaining to Transmit: 17
Packet of size 17 Transmitted---Bytes Remaining to Transmit: 0
Incoming Packet size: 15
Bytes remaining to Transmit: 15
Packet of size 15 Transmitted---Bytes Remaining to Transmit: 0
Incoming Packet size: 93
Incoming packet size (93bytes) is Greater than bucket capacity (85bytes)-PACKET REJECTED
```