Page No.:
Date:
YOUVA

Exp 14

Write a program for congestion control using leaky bucket algorithm

Code:

```
#include <stdio.h>
int main() {
    int incoming, outgoing, buck_size, n, store = 0;
    printf("Enter bucketsize, outgoing, rate & no of i/p");
    scanf("%d %d %d", &buck_size, &outgoing, &n);
    while (n != 0) {
        printf("Enter the incoming packet size :");
        scanf("%d", &incoming);
        printf("incoming packet size %d \n", incoming);
        if (incoming <= (buck_size - store)) {
            store += incoming;
            printf("Bucket buffer size %d out of %d \n",
                incoming - (buck_size - store));
            printf("Bucket buffer size %d out of %d \n",
                store, buck_size);
            store = buck_size;
        }
        store = store - outgoing;
        printf("After outgoing %d bytes left out of %d in
            buffer \n", store, buck_size);
        n--;
    }
}
```

O/P: Enter bucket size, outgoing rate & no of I/P : 10
Enter incoming packet size : 5
Incoming packet SAC : 5
Bucket Buffer size 5 out of 10
After outgoing 2 bytes left out of 10 in buffer
After
Enter the incoming packet size : 15
Incoming packet size : 5
Bucket buffer size 7 out 10
After outgoing 4 bytes left out of 10 in buffer
Enter the incoming paketet size : 7
Incoming packet size : 7
Dropped buffer 4 out of 10
After outgoing 7 bytes left out of 10 in buffer

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Output

```
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


=== Code Execution Successful ===
```