

lab: week 8

## leaky Bucket

Exp 2: write a program for congestion control using leaky Bucket Algorithm.

Program:

```
#include <stdio.h>

int main () {
    int capacity = 0, packet = 0, bsize = 0, rate = 0;
    char ans = 'y';

    printf ("Enter the bucket size: ");
    scanf ("%d", &capacity);
    printf ("Enter the leaking rate: ");
    scanf ("%d", &rate);
    while (ans == 'y') {
        printf ("\nEnter the packet size: ");
        scanf ("%d", &packet);
        if ((bsize + packet) > capacity) {
            printf ("\nBuffer full at the moment");
        }
        else if ((bsize + packet) <= capacity) {
            bsize += packet;
            bsize -= rate;
            printf ("remaining bucket capacity is %d", bsize);
            printf ("\nDo you wish to keep adding packets? y/n : ");
            scanf ("%s", &ans);
        }
    }
}
```

OUTPUT:

Enter the bucket size : 500

Enter the leaking rate : 5

Enter the packet size : 250

Remaining bucket capacity is : 250

do you wish to keep adding packets ? y/n : y

Enter the packet size : 250

Remaining bucket capacity is 480

do you wish to keep adding packets ? y/n : y

Enter the packet size : 300

buffer full at the moment

remaining bucket capacity is 475

do you wish to keep adding packets ? y/n : y

Enter the packet size : 500

buffer full at the moment

remaining bucket capacity is 470

do you wish to keep adding packets ? y/n : y

Enter the packet size : 550

buffer full at the moment

remaining bucket capacity is 465

do you wish to keep adding packets ? y/n : n



input

enter the bucket capacity: 500

enter the leaking rate: 5

enter the packet size: 250

remaining bucket capacity is 245

do you wish to keep adding packets? y/n: y

enter the packet size: 240

remaining bucket capacity is 480

do you wish to keep adding packets? y/n: y

enter the packet size: 300

buffer full at the moment

remaining bucket capacity is 475

do you wish to keep adding packets? y/n: y

enter the packet size: 500

buffer full at the moment

remaining bucket capacity is 470

do you wish to keep adding packets? y/n: y

enter the packet size: 550

buffer full at the moment

remaining bucket capacity is 465

do you wish to keep adding packets? y/n: n

...Program finished with exit code 0

Press ENTER to exit console.