LEAKY

#include<stdio.h>

#include<stdlib.h>

#define MIN(x,y) (x>y)?y:x

int main()

{

    int orate,drop=0,cap,x,count=0,inp[10]={0},i=0,nsec,ch;

    printf("\n enter bucket size : ");

    scanf("%d",&cap);

    printf("\n enter output rate :");

    scanf("%d",&orate);

    do{

    printf("\n enter number of packets coming at second %d :",i+1);

    scanf("%d",&inp[i]);

    if(inp[i]>cap)

    {

        printf("Bucket overflow\n");

        printf("Packet Discarded\n");

        exit(0);

    }

    i++;

    printf("\n enter 1 to contiue or 0 to quit..........");

    scanf("%d",&ch);

}

while(ch);

nsec=i;

printf("\n Second \t Recieved \t Sent \t Dropped \tRemained \n");

for(i=0;count || i<nsec;i++)

{

    printf("  %d",i+1);

    printf(" \t\t%d\t ",inp[i]);

    printf(" \t%d\t ",MIN((inp[i]+count),orate));

    if((x=inp[i]+count-orate)>0)

    {

        if(x>cap)

        {

            count=cap;

            drop=x-cap;

        }

        else

        {

            count=x;

            drop=0;

        }

    }

    else

    {

        drop=0;

        count=0;

    }

    printf(" \t %d\t %d \n",drop,count);

}

return 0;

}

Output:

