Leaky Bucket

#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]);

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%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;

}

