2/1/23

Lab 9: Leaky bucket Algorithm

Aim: Write a program for congestion control using leaky bucket algorithm.

Code:

```
#include<iostream.h>
using namespace std;

int main(){
int capacity=0, packet=0, bsize=0, rate=0;
char ans='y';
cout<<"Enter the bucket size: ";
cin>>capacity;
cout<<"Enter the leaking rate: ";
cin>>rate;

while(ans=='y')
{
    cout<<"\nenter the packet size: ";
    cin>>packet;
    if((bsize+packet)>capacity)
    {
        cout<<"\n buffer full at the moment ";
    }
    else if((bsize+packet)<=capacity)
    {
        bsize+=packet;
    }
    bsize-=rate;
    cout<<" remaining bucket capacity is "<<bsize;
    cout<<"\n do you wish to keep adding packets?
                                    y/n: ";
```

cin >> ans;
}

return 0;
}

output:

enter the bucket size : 70
enter the leaking rate : 2.
→ enter the packet size : 20.
remaining bucket size : 18.
do you wish to keep adding packets ? y/n : y.
→ enter the packet size : 20.
remaining bucket size : 36.
do you wish to keep adding packets ? y/n : y.
→ enter the packet size : 20
remaining bucket capacity is 54
do you wish to keep adding packets ? y/n : y
→ enter the packet size : 20.
buffer full at the moment
remaining bucket capacity is 54
do you wish to keep adding packets ? y/n : y
→ enter the packet size : 2.
remaining capacity of bucket is 52
do you wish to keep adding packets ? y/n : n.