LAB-8 5/1/23

Write a program for congestion control using Leaky bucket algorithm.

```
#include<iostream>
using namespace std;
int main()
{
cout<< "Enter bucket size"<<endl;
 int bucket_size;
int filled=0;
 int outputrate ;
 int inputrate;
int choice;
 cin>> bucketsize ;
 cout<< "Enter output rate"<<endl;
 cin>> outputrate;
  do {
  cout<< "Enter packet size"<<endl;
   cin>> outputrate;
   do{
     cout<< "Enter packet size"<<endl;
       cin>> inputpacket ;
      if (inputpacket <= bucketsize){
           if (filled + input packet >bucketsize)
          {
            cout<< "packets too big for bucket"<<endl;
          }
          else{
          filled=filled+inputbucket;
          }
    }
  else
  {
  cout<<"packet is too big for bucket"<<endl;
   }
  if(filled<= outputrate)
   {
      filled=0 ;
   }
   else
   {
      filled = filled - outputrate; }
    cout<< "Amount of bucket filled"<< filled;
     cout<< "Do you want to enter another
              packet (9 for yes, 8 for no)"<<endl;
          cin>>choice; while(choice==9 ;}
```

Output:

```
Enter bucket size : 500
Enter output rate : 50
Enter packet size : 100
Packet too big for bucket
Do you want to enter packet (9 for yes, & No) : 9
Enter packet size : 200
    packet filled : 150
Do you want to enter packet (9 for yes, & No) : 9
    Enter packetsize : 250
    Bucket size : 350
    Do you want to enter packet : 9
    Enter packet size : 250
    Packet too big for bucket
    Amount of bucket filled 300
```

```
Enter bucket size
500
Enter  output rate
50
Enter packet size
700
Packets too big for bucket
Amount of bucket filled 0
Do you want to enter another packet(9 for yes, 5 for no)
9
Enter packet size
200
Amount of bucket filled 150
Do you want to enter another packet(9 for yes, 5 for no)
9
Enter packet size
250
Amount of bucket filled 350
Do you want to enter another packet(9 for yes, 5 for no)
9
Enter packet size
250
Packets too big for bucket
Amount of bucket filled 300
Do you want to enter another packet(9 for yes, 5 for no)
```