LeakyBucket

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#include <bits/stdc++.h>
#include <unistd.h>
using namespace std;
#define bucketSize 500
void bucketInput(int a, int b)
{
    if(a > bucketSize)
        cout << "Bucket Overflow";
    else {
        sleep(5);
        while(a > b) {
            cout << b << "bytes outputted.";
            a -= b;
            sleep(5);
        }
        if(a > 0)
            cout << a << "bytes sent";
        cout << "Bucket Output successful";
    }
}
int main()
{
    int op, pktSize;
    cout << "Enter output rate:";
    cin >> op;
    for(int i=1; i<=5; i++)
    {
        sleep(rand() % 10);
        pktSize = rand() % 700;
        cout << "Packet no " << i << "Packet size = " << pktSize;
        bucketInput(pktSize, op);
    }
    cout << endl;
    return 0;
}
```