

## LAB-8

Write a program for congestion control using leaky bucket algorithm.

```
#include <iostream>
using namespace std;
int main()
{
    cout << "Enter bucket Size" << endl;
    int bucketSize;
    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 >> inputRate;
        do {
            cout << "Enter packet Size " << endl;
            cin >> inputPacket;
            if (inputPacket <= bucketSize) {
                if (filled + inputPacket > bucketSize)
                {
                    cout << "Packet too big for bucket" << endl;
                }
                else {
                    filled = filled + inputPacket;
                }
            }
        }
    }
```

```

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:- 700
Packet too big for bucket
Do you want to Enter packet (9 yes & No): 9
Enter Packet Size: 200
bucket filled:- 150
Do you want to Enter packet (9 yes, 8 No): 9
Enter packet Size: 250
bucket Size: 350
Do you want to Enter packet (9 yes & No): 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)
```

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