

5/11/23

## Lab 8

## Leaky Bucket Algorithm

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

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
int main() {
```

```
    int input = 0, i = 0, bucket limit = 100, op = 1;
```

```
    int size = 50, current = 0, input, out = 10;
```

```
    char a = 'y';
```

```
    do {
```

```
        if (current <= size) {
```

```
            if (current <= size & a == 'y') {
```

```
                cout << "Enter packet input ";
```

```
                cin >> input;
```

```
                current += input;
```

```
            }
```

```
            if (current >= 10) {
```

```
                current = current - 10;
```

```
                cout << "Packets sent is 10\n";
```

```
            }
```

```
        } else {
```

```
            cout << "Packet sent is " << current << endl;
```

```
            current = 0;
```

```
        }
```

```
        cout << "Remaining packets in bucket: " << current << endl;
```

```
        cout << "Do you want to input packet ";
```

```
        cin >> a;
```

```
    }
```

```
    while (current > 0 || a == 'y');
```

```
cout << " End ";
```

```
return 0;
```

```
}
```

## Output

Enter packet input: 20

Packets sent: 10

Remaining packets: 10

Do you want to input packet: y

Enter a packet input: 10

Packets sent: 10

Remaining packets: 10

Do you want to input packet: n

Packets sent: 10

Remaining packets: 0

Do you want to input packet: n

End.

## FINAL OUTPUT

```
PS D:\5th sem\Computer-Network-Lab\Lab8> cd "d:\5th sem\Computer-Ne
Enter a packet input: 10
Packets sent is 10
Remaining packets in bucket: 0
Do you want to input packet: y
Enter a packet input: 20
Packets sent is 10
Remaining packets in bucket: 10
Do you want to input packet: n
Packets sent is 10
Remaining packets in bucket: 0
Do you want to input packet: n
-----
Program ended
-----
PS D:\5th sem\Computer-Network-Lab\Lab8> █
```