

21/1/23

Lab 9: Leaky bucket Algorithm

Aim: Write pgm for congestion control using leaky bucket algorithm

Code:

```
#include <iostream.h>
```

```
#include <stdio.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 << "Enter the packet size: ";
```

```
cin >> packet;
```

```
if ((bsize + packet > capacity)
```

```
{ cout << "In buffer full at the moment";
```

```
}
```

```
else if ((bsize + packet) <= capacity)
```

```
{ bsize += packet;
```

```
bsize = rate;
```

```
cout << "remaining bucket capacity is " << bsize;
```

```
cout << "Do you wish to keep adding packets (y/n)";
```

cin >> ans;
}

return 0;
}

O/P

Enter the bucket size : 70

Enter the leaking rate : 2

Enter the packet size : 20

remaining bucket size : 50

do you wish to keep adding packets? y/n : y

Enter the packet size : 20

remaining bucket size : 30

do you wish to keep adding packets? y/n : y

Enter packet size : 20

remaining bucket size is 10

do you wish to keep adding packets? y/n : y

Enter the packet size : 20

Buffer full at the moment

remaining bucket capacity is 10

do you wish to keep adding packets? y/n : y

Enter the packet size : 2

remaining capacity of bucket is 12

do you wish to keep adding packets? y/n : n