

## WEEK 14

Write a program for congestion control using Leaky bucket algorithm

\* Write a program for congestion control using Leaky Bucket algorithm

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

```
int main()
```

```
{
```

```
    int incoming, outgoing, buds-size, n, store=0;
```

```
    printf("Enter bucket size:");
```

```
    scanf("%d", &buds-size);
```

```
    printf("Enter outgoing size:");
```

```
    scanf("%d", &outgoing);
```

```
    printf("Enter no. of inputs:");
```

```
    scanf("%d", &n);
```

```
    while (n!=0)
```

```
    {
```

```
        printf("Enter the Incoming Bucket size:");
```

```

scanf ("%d", &incoming);
if (incoming <= (bucket-size - store))
{
    store += incoming;
    printf ("Bucket buffer size %d out of %d",
            store, bucket-size);
}
else {
    printf ("Dropped %d no. of packets\n",
            incoming - (bucket-size - store));
    printf ("Bucket buffer size %d out of %d\n",
            store, bucket-size);
    store = bucket-size;
}
store = store - outgoing;
printf ("After outgoing %d packets left out of
        %d in buffer\n", store, bucket-size);
n--;
}
}

```

output:

Enter bucket size: 5000  
 Enter outgoing rate: 2000  
 Enter number of inputs: 2  
 Enter the incoming packet size: 3000  
 Bucket buffer size 3000 out of 5000  
 After outgoing 1000 packets left out of 5000 in buffer

Enter the incoming packet size: 1000  
 Bucket buffer size 2000 out of 5000  
 After outgoing 0 packets left out of 5000  
 in buffer.

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```
PS D:\VS Code> cd "d:\VS Code\OS\" ; if ($?) { gcc bucket.c -o bucket } ; if ($?) { .\bucket }
Enter Bucket size and outstream size
2000
100
Packet of 41 bytes accepted
Remaining bytes: 2000
If you want to stop input, press 0, otherwise, press 1
1
Packet of 467 bytes accepted
Remaining bytes: 1633
If you want to stop input, press 0, otherwise, press 1
1
Packet of 334 bytes accepted
Remaining bytes: 1399
If you want to stop input, press 0, otherwise, press 1
1
Packet of 500 bytes accepted
Remaining bytes: 999
If you want to stop input, press 0, otherwise, press 1
1
Packet of 169 bytes accepted
Remaining bytes: 930
If you want to stop input, press 0, otherwise, press 1
1
Packet of 724 bytes accepted
Remaining bytes: 306
If you want to stop input, press 0, otherwise, press 1
1
Packet of 478 bytes is discarded
Remaining bytes: 406
If you want to stop input, press 0, otherwise, press 1
1
Packet of 358 bytes accepted
Remaining bytes: 148
If you want to stop input, press 0, otherwise, press 1
1
Packet of 962 bytes is discarded
Remaining bytes: 248
If you want to stop input, press 0, otherwise, press 1
0
Remaining bytes: 348
Remaining bytes: 448
Remaining bytes: 548
Remaining bytes: 648
Remaining bytes: 748
```