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IBM19CS404

Q4 Write a program for congestion control using Leaky bucket algorithm.

```
#include <bits/stdc++.h>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int incoming_pktsize, outgoingRate,  
        bucketSize, n;
```

```
    int store = 0;
```

```
    cout << "Enter the Bucket size: ";
```

```
    cin >> bucketSize;
```

```
    cout << "Enter the outgoing Rate: ";
```

```
    cin >> outgoingRate;
```

```
    cout << "Enter the Number of  
        input packets: ";
```



```
cin >> n;
```

```
while (n)  
{
```

```
    cout << "Enter the Incoming packet  
        size:";
```

```
    cin >> incoming_pktsize;
```

```
    cout << "Incoming packet size is:"  
        << incoming_pktsize << endl;
```

```
    if (incoming_pktsize <= (bucketsize -  
        store))
```

```
{
```

```
    store += incoming_pktsize;
```

```
    cout << "Bucket Buffer size" <<
```

```
        store << " out of " << bucketsize  
        << endl;
```

```
}
```

```
else
```

```
{
```

```
    cout << "Discarded " << (incoming_p-  
        -ktsize - (bucketsize - store)) <<
```

```
" Incoming packets\n";  
cout << "Bucket Buffer size " << store  
    << " out of " << bucketSize << endl;  
store = bucketSize;  
}  
store -= outgoingRate;  
n--;  
}  
return 0;  
}
```