

leaky Bucket Algorithm

```
#include <bits/stdc++.h>
using namespace std;
```

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```
int main()
```

```
{ int BucketSize;
```

```
cout << "Enter the max bucket size : ",
```

```
cin >> BucketSize;
```

```
int OutputRate;
```

```
cout << "Enter the o/p rate : ",
```

```
cin >> OutputRate;
```

```
cout << "Enter the Packets : ";
```

```
int numberOfPackets;
```

```
cin >> numberOfPackets;
```

```
for (int i=0; i < numberOfPackets; i++)
```

```
{ int packetSize;
```

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

```
cin >> packetSize;
```

```
leakyBucket (OutputRate, BucketSize, packetSize);
```

```
}
```

```
void leakyBucket (int outputRate, int BucketSize,  
int PacketSize)
```

```
{
```

```
if (PacketSize <= OutputRate)
```

```
{  
    cout << "Bucket Output is successful" << endl;  
    cout << "Last " << PacketSize << " was  
    sent " << endl;  
}
```

```
{
```

```
else if (PacketSize <= BucketSize)
```

```
{  
    cout << "Bucket Output is successful";  
    cout << "Last " << OutputRate << "  
    bytes was sent " << endl;  
}
```

```
int rem_size = PacketSize - OutputRate;
```

```
while (rem_size > 0)
```

```
{  
    if (rem_size >= OutputRate)
```

```
    cout << "Last " << OutputRate  
    << " Bytes was sent"
```

```
    else
```

```
    cout << "Last " << rem_size  
    << " was sent";
```

```
    rem_size = rem_size -  
    outputRate;
```

```
}
```

```
else cout << "BUCKET OVERFLOW!";
```

```
{
```