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Leaky Bucket Write-Up-CN

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IRM18CS031

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

```
int bucketSize = 800;
```

```
void delay(int delay) {
    int now = time(NULL);
    int later = now + delay;
    while(now <= later)
        now = time(NULL);
}
```

```
void bucketInput(int a, int b) {
    if (a > bucketSize)
        cout << "\n Bucket Overflow ";
    else {
        delay(1);
        while(a > b) {
            cout << "\n " << b << " bytes outputted ";
            a -= b;
            delay(1);
        }
        if (a > 0) {
            cout << "\n Last " << a << " bytes sent ";
        }
    }
}
```

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```
    cout << "In Bucket output successful";  
  }  
}
```

```
int main() {
```

```
    int op, packetSize;
```

```
    cout << "Enter output rate: ";
```

```
    cin >> op;
```

```
    for (int i = 1; i <= 5; i++) {
```

```
        delay(1);
```

```
        packetSize = rand() % 1000;
```

```
        cout << "In Packet no " << i <<
```

```
            "Packet size = " << packetSize;
```

```
        bucketInput(packetSize, op);
```

```
    }
```

```
    return 0;
```

```
}
```

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