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#include <bits/stdc++.h>
using namespace std;
int main()
{
    int no-of-queries, storage = 0;
    int output-pkt-size;
    int input-pkt-size, bucket-size,
    size-left;
    cout << "Enter no of queries:";
    cin >> no-of-queries;
    cout << "Enter the bucket size:";
    cin >> bucket-size;
    cout << "Enter output packet
    size:";
    cin >> output-pkt-size;
    for (int i = 0; i < no-of-queries; i++)
    {
        cout << "Enter input packet size:";
        cin >> input-pkt-size;
        size-left = bucket-size - storage;
        if (input-pkt-size <= size-left)
        {
            storage += input-pkt-size;
        }
        else
        {
            cout << "packet loss = " << input-pkt-
            size << endl;
        }
    }
    cout << "Buffer size = " <<

```

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storage << "Out of bucket size" <<
bucket-size << endl;
storage -= output-pkt-size;
if (storage < 0)
    storage = 0;
cout << "after output new buffer size" <<
storage << endl;
}
return 0;
}

```

Output

Enter no of queries: 3

Enter the bucket size: 100

Enter output packet size: 50

Enter input packet size: 100

Buffer size = 100 out of bucket size = 100

after output new buffer size = 50

Enter input Packet Size: 150

Packet loss = 150

buffer size = 50 out of bucket size = 100

after output new buffer size = 0

Enter input packet size: 20

Buffer size = 20 out of bucket size = 100

after output new buffer size = 0

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