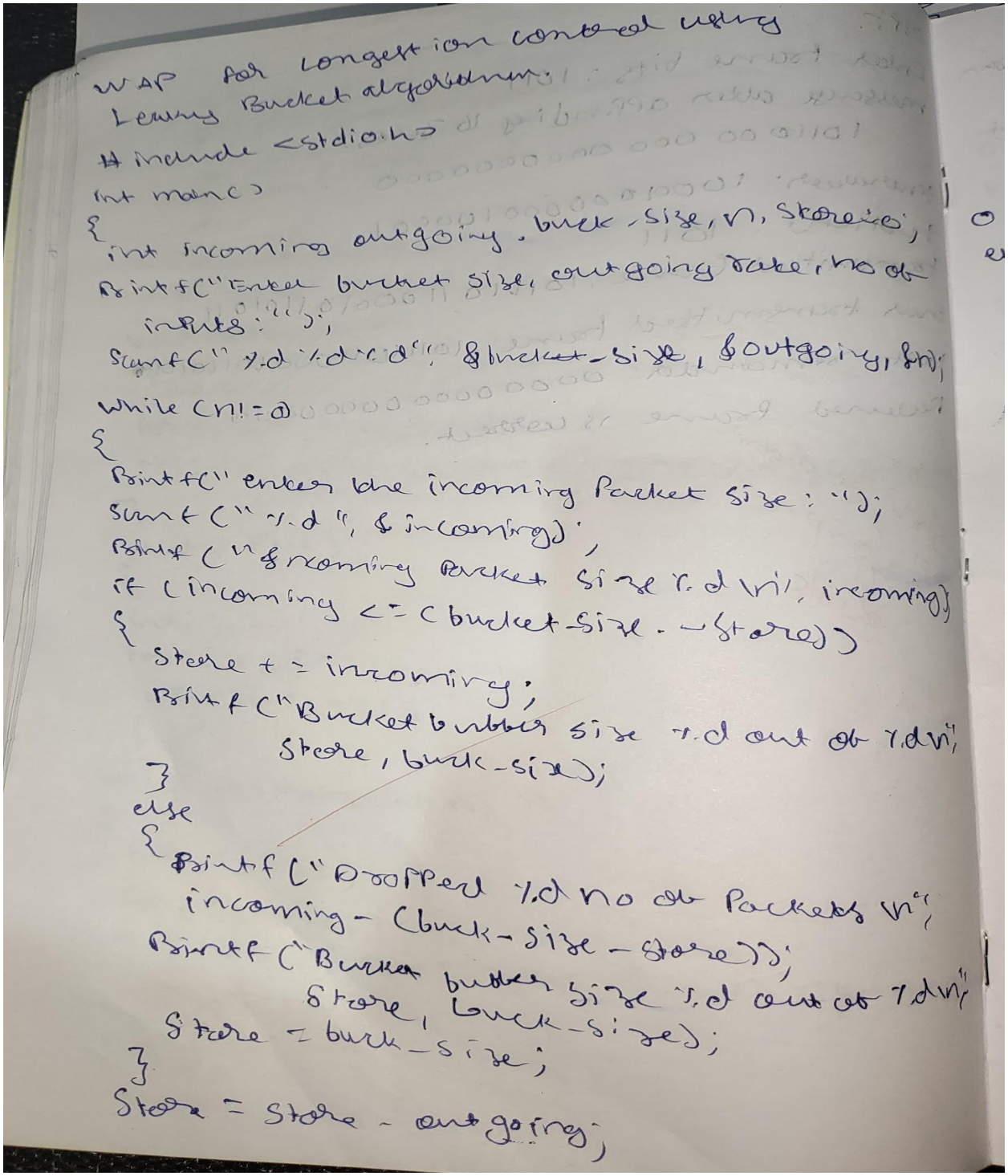
Write a program for congestion control using Leaky bucket algorithm

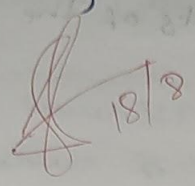


```
WAP for congestion control using
Leaky Bucket algorithm:
#include <stdio.h>
int main()
{
int incoming, outgoing, bucket_size, n, store=0;
Printf("Enter bucket size, outgoing rate, no of
  inputs: ");
Scanf("%d %d %d", &bucket_size, &outgoing, &n);
while(n!=0)
{
Printf("enter the incoming Packet size: ");
Scanf("%d", &incoming);
Printf("\n Incoming Packet size %d\n", incoming);
if (incoming <= (bucket_size - store))
{
  store += incoming;
  Printf("Bucket buffer size %d out of %d\n",
        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;
```

Bprintf("After outgoing %d Packets left out of %d in bucket in", store, bucket_size);

}

}



O/P:

enter bucketSize, outgoing rate and no of inputs: 20 10 2

Enter the incoming Packet size: 30

Incoming Packet size: 30

Dropped 10 no of Packets

Bucket buffer size 0 out of 20

After outgoing 10 Packets left out of 20 in buffer

enter the incoming Packet size: 10

Incoming Packet size 10

Bucket buffer size 20 out of 20

After outgoing 10 Packet left out of 20 in buffer

This is leaky bucket algo used to regulate network traffic. It takes input for bucket size, outgoing rate, no. of input for each Packet.

1. Input the Packet size.
2. if there is enough space in the buffer, add the Packet size to it.
3. if not, drop the excess Packets and set the buffer to full.
4. Simulate outgoing Packets by subtracting outgoing rate from buffer.
5. Repeat for all Packets.

Output:

```
Enter bucket size, outgoing rate and no of inputs: 10 10 2
Enter the incoming packet size : 30
Incoming packet size 30
Dropped 20 no of packets
Bucket buffer size 0 out of 10
After outgoing 0 packets left out of 10 in buffer
Enter the incoming packet size : 10
Incoming packet size 10
Bucket buffer size 10 out of 10
After outgoing 0 packets left out of 10 in buffer
```