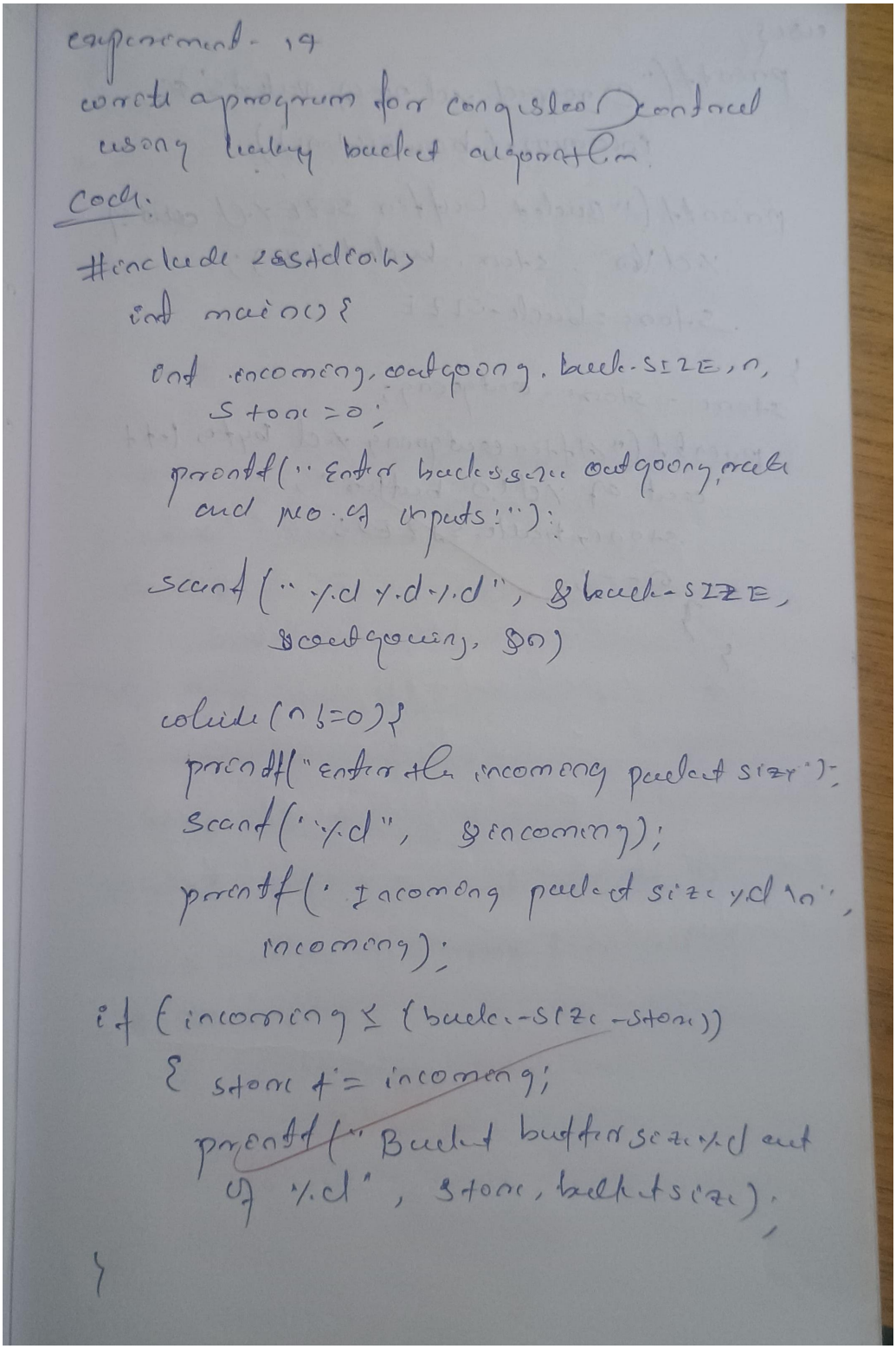
Program 15

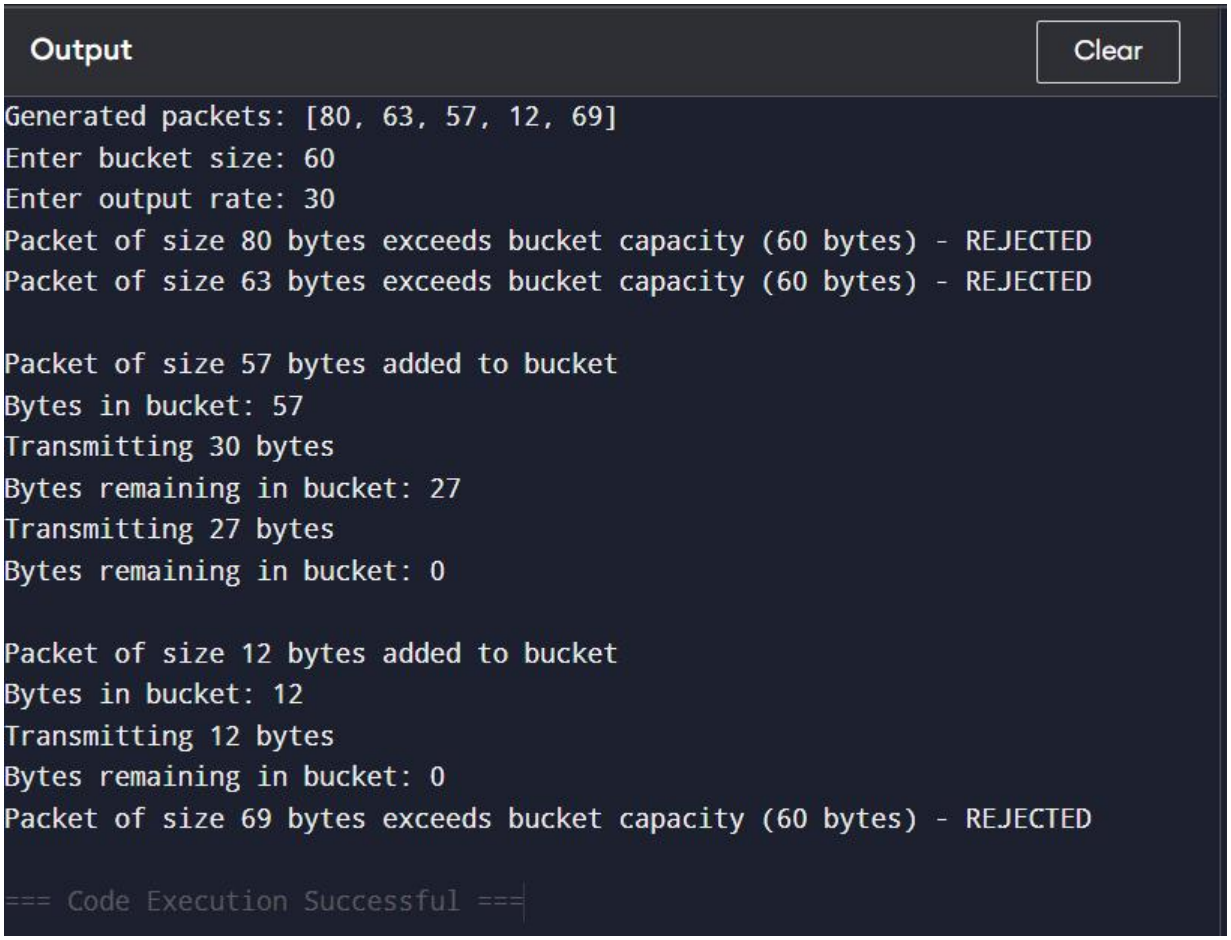
Write a program for congestion control using Leaky bucket algorithm.

Code:



```
experiment - 14
write a program for congestion control
using leaky bucket algorithm
Code:
#include <stdio.h>
int main(){
    int incoming, outgoing, bucket_SIZE, n,
        store=0;
    printf("Enter bucket size outgoing, rate
        and no. of inputs:");
    scanf("%d %d %d", &bucket_SIZE,
        &outgoing, &n)
    while(n!=0){
        printf("enter the incoming packet size");
        scanf("%d", &incoming);
        printf("Incoming packet size %d \n",
            incoming);
    if (incoming <= (bucket_size-store))
        { store += incoming;
        printf("Bucket buffer size %d out
            of %d", store, bucket_size);
}
```

```
else{
  printf("Dropped %d no of packets",
          incoming-(bucketstore));
  printf("Bucket buffer size %d out of
     %d bytes", store, bucket_size);
  store=bucket_SIZE
}
store = store - outgoing;
printf("After outgoing %d bytes left
   out of %d in buffer",
     store, bucket_SIZE);
   n--;
  }
}
```


Output
Clear
Generated packets: [80, 63, 57, 12, 69]
Enter bucket size: 60
Enter output rate: 30
Packet of size 80 bytes exceeds bucket capacity (60 bytes) - REJECTED
Packet of size 63 bytes exceeds bucket capacity (60 bytes) - REJECTED
Packet of size 57 bytes added to bucket
Bytes in bucket: 57
Transmitting 30 bytes
Bytes remaining in bucket: 27
Transmitting 27 bytes
Bytes remaining in bucket: 0
Packet of size 12 bytes added to bucket
Bytes in bucket: 12
Transmitting 12 bytes
Bytes remaining in bucket: 0
Packet of size 69 bytes exceeds bucket capacity (60 bytes) - REJECTED
=== Code Execution Successful ===