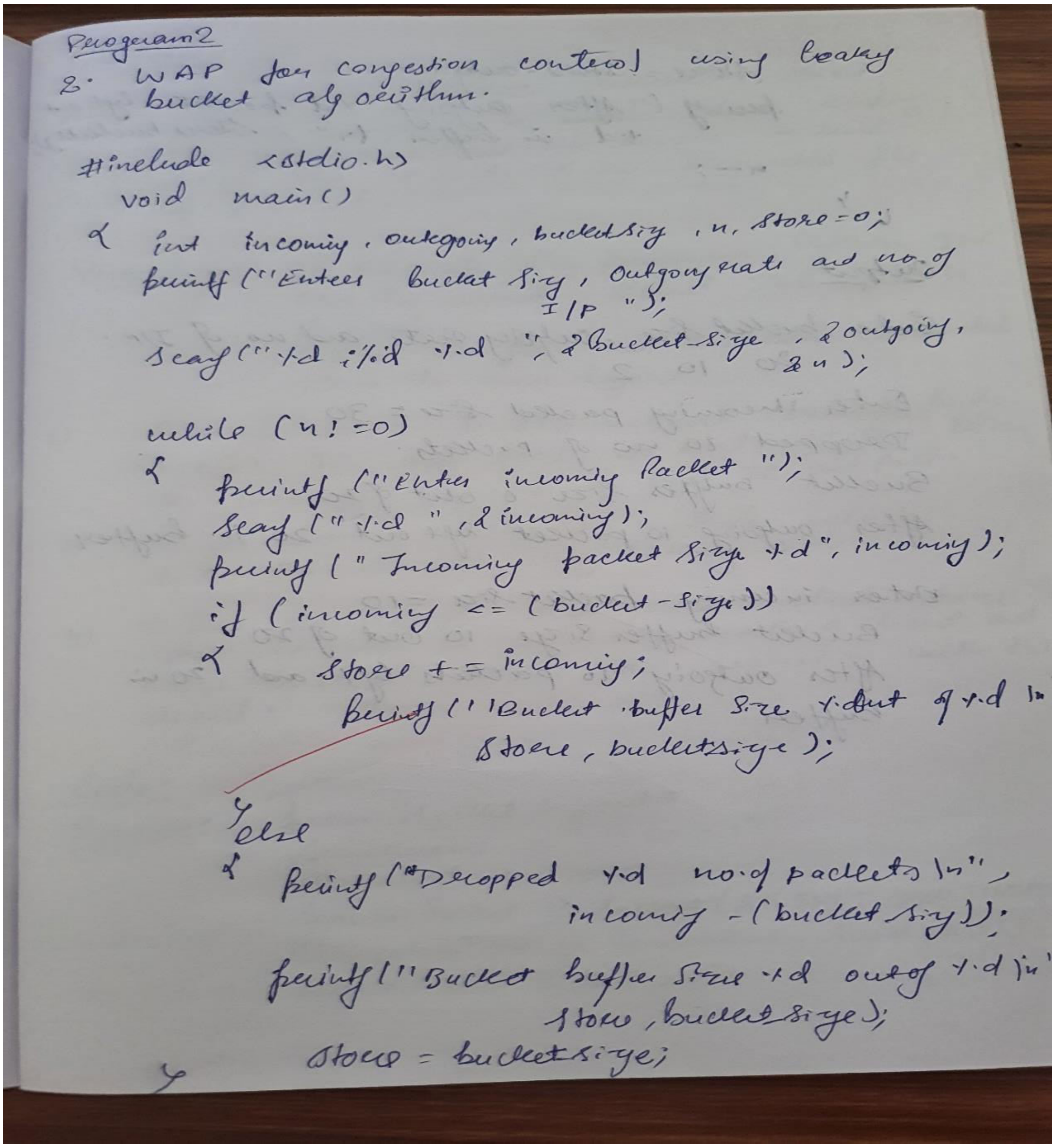
CNLAB 14

AIM: Write a program for congestion control using Leaky bucket algorithm**.**

OBSERVATION:



Program2

2. WAP for congestion control using leaky bucket algorithm.

```
#include <stdio.h>
  void main()
{ int incoming, outgoing, bucketsize, n, store=0;
  printf("Enter bucket size, outgoing rate and no.of
                        I/P ");
  scanf("%d %d %d ", &bucket_size , &outgoing,
                                  &n);

  while (n!=0)
  {
      printf("Enter incoming packet ");
      scanf("%d ", &incoming);
      printf("Incoming packet size %d", incoming);
      if (incoming <= (bucket-size))
      {     store += incoming;
              printf("Bucket buffer size %d out of %d \n
                        store, bucketsize);

      }
      else
      { printf("Dropped %d no.of packets \n",
                         incoming -(bucket size));

        printf("Bucket buffer size %d out of %d \n"
                    store, bucket size);
        store = bucketsize;
  }
```

```
    store = store - outgoing;
    printf ("After outgoing %d packets left out
            %d in buffer \n", store, bucketsize);

    n--;

  }
}
```

Output

```
Enter bucket size, outgoing rate and no. of I/P:
      20  10  2

 Enter incoming packet size = 30
 Dropped 10 no of packets.
Bucket buffer size 0 out of 20.
After outgoing 10 packet left out 20 in buffer

Enter incoming packet size = 10
   Bucket buffer size 10 out of 20
   After outgoing 10 packets left and 20 in
   buffer.
```

Program

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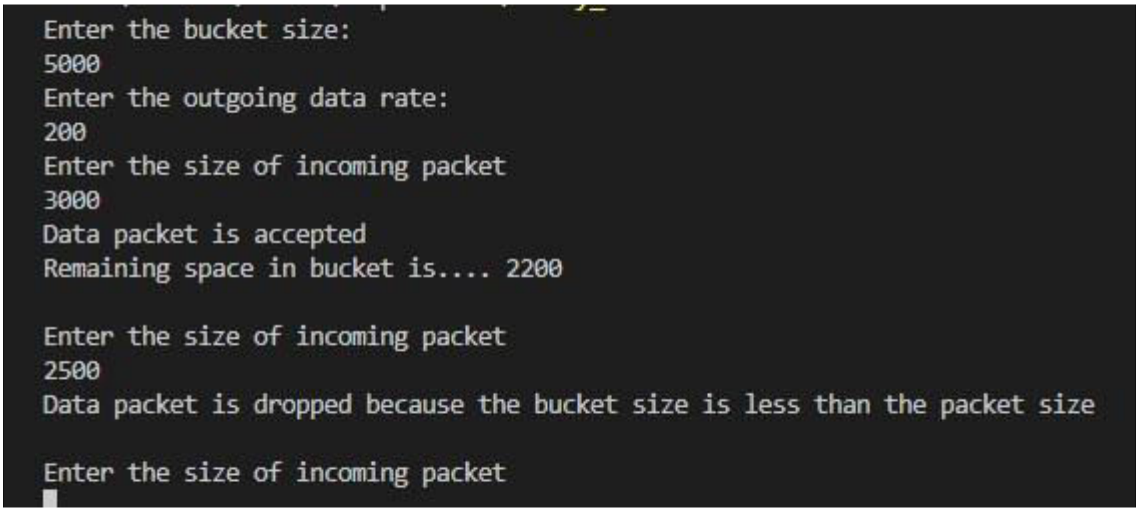
CODE:

```
#include<stdio.h> void main()
{ int b_size,d_rate,in_d_rate,rem_b_size;
 printf("Enter the bucket size:\n");
scanf("%d",&b_size);
 rem_b_size=b_size;
printf("Enter the outgoing data rate:\n");
scanf("%d",&d_rate); while(1) {
printf("Enter the size of incoming packet\n");
 scanf("%d",&in_d_rate);
if(in_d_rate<=b_size)
{
if(in_d_rate<=rem_b_size)
{
 rem_b_size=rem_b_size-in_d_rate;
 rem_b_size=rem_b_size+d_rate;
 printf("Data packet is accepted\n");
printf("Remaining space in bucket is.... %d\n",rem_b_size);
printf("\n");
}
 else
{
printf("Data packet is dropped because the bucket size is less than the packet
size\n");
printf("\n");
}
}
}
}
```

OUTPUT



```
Enter the bucket size:
5000
Enter the outgoing data rate:
200
Enter the size of incoming packet
3000
Data packet is accepted
Remaining space in bucket is.... 2200

Enter the size of incoming packet
2500
Data packet is dropped because the bucket size is less than the packet size

Enter the size of incoming packet
```