**PROGRAM 12**

import java.util.Scanner;

public class P12\_LeakyBucket {

public static void main(String[] args)

{

Scanner Sc = new Scanner(System.in);

int incoming,outgoing,buck\_size,n,store=0;

System.out.println("enter the buck\_size,outgoing\_rate and number of input set and incoming size:");

buck\_size=Sc.nextInt();

outgoing=Sc.nextInt();

n=Sc.nextInt();

incoming = Sc.nextInt();

while(n!=0)

{

System.out.println("incoming size is: "+incoming);

if(incoming<=buck\_size)

{

if(incoming<=(buck\_size-store))

{

store+=incoming;

System.out.println(" bucket buffer size " + store + " out of " + buck\_size);

}

else

{

System.out.println("dropped "+(incoming-(buck\_size-store) )+" packets" );

System.out.println(" bucket buffer size " + store + " out of " + buck\_size);

store=buck\_size;

}

store-=outgoing;

if(store<=0)

{

System.out.println("packet send completely");

}

else

{

System.out.println(" after outgoing " + store + " packet left out of " + buck\_size +" is buffers");

}

}

else

{

System.out.println("packet rejected due to overflow the bucket capacity");

}

n--;

}

}

}