

## Lamport's Algorithm for Mutual Exclusion

```

1  #include<stdio.h>
2  #include<conio.h>
3  #include<iostream>
4  using namespace std;
5  int main ()
6  {
7      printf("\n Kabeer Ahmed ---> SE-19028 \n");
8      int i, d, p, a, c = 0, aa[10], k,j, n;
9      char ch='y';
10     printf ("enter no of processes ");
11     fflush(stdin);
12     scanf ("%d", &n);
13     i = 0;
14     do
15     {
16         printf ("enter the process no which want to execute critical section ");
17         fflush(stdin);
18         scanf ("%d", &a);
19         aa[i] = a;
20         i++;
21         c=c + 1;
22         printf ("some other process want to execute cs? then press y.");
23         fflush(stdin);
24         cin>>ch;
25     }
26     while (ch == 'y');
27
28     for (k = 0; k < c; k++)
29     {
30         j=aa[k];
31         printf ("Incritical section is executing for process %d in queue.....",j);
32         printf ("Incritical section is finished for process %d", j);
33         printf ("\nrelease msg has sent by process%d", j);
34     }
35     getch ();
36 }

```

```

Kabeer Ahmed ---> SE-19028
enter no of processes 5
enter the process no which want to execute critical section 3
some other process want to execute cs? then press y.y
enter the process no which want to execute critical section 1
some other process want to execute cs? then press y.y
enter the process no which want to execute critical section 4
some other process want to execute cs? then press y.y
enter the process no which want to execute critical section 2
some other process want to execute cs? then press y.5
Incritical section is executing for process 3 in queue.....Incritical section is finished for process 3
release msg has sent by process3Incritical section is executing for process 3 in queue.....Incritical section is finished for process 1
release msg has sent by process1Incritical section is executing for process 3 in queue.....Incritical section is finished for process 4
release msg has sent by process4Incritical section is executing for process 3 in queue.....Incritical section is finished for process 2
release msg has sent by process2

...Program finished with exit code 0
Press ENTER to exit console.

```

## Diagram made in Lamport's Algorithm

