

```
13 void first_in_first_out(){
14     /* Your code for FIFO algorithm here */
15     int pageSelect = 0;
16     int compareTo = 0;
17
18     for (int y = 0; y < 101; y++)
19     {
20         if (page[y].ArrivalTime > compareTo){ //define last to arrive to compare
against
21             compareTo = page[y].ArrivalTime;
22         }
23     }
24
25     for (int i = 0; i < 101; i++) {
26         if(page[i].ArrivalTime != 0){ //excludes pages that dont exist
27             if (page[i].ArrivalTime <= compareTo){ // reduces compareTo until the
lowest arrivaltime is defined, aka first in.
28                 compareTo = page[i].ArrivalTime;
29                 pageSelect = page[i].Id;
30             }
31         }
32     }
33     printf("Page selected: %d, Loaded at time %d, Last Referred at time %d, Rbit %d, Mbit
%d.\n\n", page[pageSelect].Id, page[pageSelect].ArrivalTime,
page[pageSelect].LastRefTime, page[pageSelect].Rbit, page[pageSelect].Mbit);
34
35 }

38 void least_recently_used(){
39     /* Your code for LRU algorithm here */
40     int pageSelect = 0;
41     int compareTo = 0;
42
43     for (int y = 0; y < 101; y++)
44     {
45         if (page[y].LastRefTime > compareTo){ //define last to be referenced to
compare against
46             compareTo = page[y].LastRefTime;
47         }
48     }
49
50     for (int i = 0; i < 101; i++) {
51         if(page[i].ArrivalTime != 0){ //excludes pages that dont exist
52             if (page[i].LastRefTime <= compareTo){ // reduces compareTo until the
lowest reference time is defined, aka last referenced.
53                 compareTo = page[i].LastRefTime;
54                 pageSelect = page[i].Id;
55             }
56         }
57     }
58     printf("Page selected: %d, Loaded at time %d, Last Referred at time %d, Rbit %d, Mbit
%d.\n", page[pageSelect].Id, page[pageSelect].ArrivalTime,
page[pageSelect].LastRefTime, page[pageSelect].Rbit, page[pageSelect].Mbit);
59
60 }
```

```
erikvs@erikvs-Aspire-V3-571:~/labs/lab12$ ./pra
```

Page	Arrival	LastRef	Rbit	Mbit
0	126	280	1	0
1	230	265	0	1
2	235	270	0	0
3	110	285	1	1
4	115	275	1	0
5	169	290	0	0
6	112	300	0	1
7	220	295	1	0
8	119	276	0	1
9	222	281	1	1
10	215	283	0	0
11	200	295	0	1
12	150	266	1	1
13	113	277	0	0
14	120	278	1	0
15	222	299	0	0

First-in-First-out...

Page selected: 3, Loaded at time 110, Last Referred at time 285, R bit 1, Mbit 1.

Least-Recently-Used...

Page selected: 1, Loaded at time 230, Last Referred at time 265, R bit 0, Mbit 1.