

(globals)

Project C prodconos.c x fifoos.c x lruos.c x optimalos.c x seqfilallocos.c x

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1 #include<stdio.h>
2 int main()
3 {
4     int no_of_frames, no_of_pages, frames[10], pages[30], temp[10], flag1, flag2, flag3, i, j, k, pos, max, faults = 0;
5     printf("Enter number of frames: ");
6     scanf("%d", &no_of_frames);
7     printf("Enter number of pages: ");
8     scanf("%d", &no_of_pages);
9     printf("Enter page reference string: ");
10    for(i = 0; i < no_of_pages; ++i){
11        scanf("%d", &pages[i]);
12    }
13    for(i = 0; i < no_of_frames; ++i){
14        frames[i] = -1;
15    }
16    for(i = 0; i < no_of_pages; ++i){
17        flag1 = flag2 = 0;
18        for(j = 0; j < no_of_frames; ++j){
19            if(frames[j] == pages[i]){
20                flag1 = flag2 = 1;
21                break;
22            }
23        }
24        if(flag1 == 0){
25            for(j = 0; j < no_of_frames; ++j){
26                if(frames[j] == -1){
27                    faults++;
28                    frames[j] = pages[i];
29                    flag2 = 1;
30                    break;
31                }
32            }
33        }
34        if(flag2 == 0){
35            flag3 = 0;
36            for(j = 0; j < no_of_frames; ++j){
```

```
37     temp[j] = -1;
38     for(k = i + 1; k < no_of_pages; ++k){
39         if(frames[j] == pages[k]){
40             temp[j] = k;
41             break;
42         }
43     }
44 }
45 for(j = 0; j < no_of_frames; ++j){
46     if(temp[j] == -1){
47         pos = j;
48         flag3 = 1;
49         break;
50     }
51 }
52 if(flag3 == 0){
53     max = temp[0];
54     pos = 0;
55     for(j = 1; j < no_of_frames; ++j){
56         if(temp[j] > max){
57             max = temp[j];
58             pos = j;
59         }
60     }
61 }
62 frames[pos] = pages[i];
63 faults++;
64 }
65 printf("\n");
66 for(j = 0; j < no_of_frames; ++j){
67     printf("%d\t", frames[j]);
68 }
69 }
70 printf("\n\nTotal Page Faults = %d", faults);
71 return 0;
72 }
```

Enter number of frames: 5

Enter number of pages: 15

Enter page reference string: 0 7 8 3 1 2 5 7 4 3 1 9 2 7 6

0	-1	-1	-1	-1
0	7	-1	-1	-1
0	7	8	-1	-1
0	7	8	3	-1
0	7	8	3	1
2	7	8	3	1
2	7	5	3	1
2	7	5	3	1
2	7	4	3	1
2	7	4	3	1
2	7	4	3	1
2	7	9	3	1
2	7	9	3	1
2	7	9	3	1
6	7	9	3	1

Total Page Faults = 10

Process exited after 27.85 seconds with return value 0

Press any key to continue . . .