## **EXP 31**

```
#include <stdio.h>
#define MAX PAGE FRAMES 10
#define MAX_PAGE_REFERENCES 20
int page frames[MAX PAGE FRAMES];
int page_reference_string[MAX_PAGE_REFERENCES] = {1, 2, 3, 4, 2, 1, 5, 6, 2, 1, 2, 3, 7, 6, 3, 2, 1, 2,
3, 6};
int page_faults = 0;
int find_page_fault(int page_reference) {
  for (i = 0; i < MAX_PAGE_FRAMES; i++) {
    if (page_frames[i] == page_reference) {
      return 0;
    }
  }
  return 1;
}
int main() {
  int i, j, current_page, next_page;
  for (i = 0; i < MAX_PAGE_FRAMES; i++) {
    page_frames[i] = -1;
  }
  for (i = 0; i < MAX_PAGE_REFERENCES; i++) {
    current_page = page_reference_string[i];
    if (find_page_fault(current_page)) {
      page_faults++;
      for (j = 0; j < MAX PAGE FRAMES - 1; j++) {
        page_frames[j] = page_frames[j + 1];
      }
      page_frames[MAX_PAGE_FRAMES - 1] = current_page;
    }
    printf("Page frames: ");
    for (j = 0; j < MAX PAGE FRAMES; j++) {
      printf("%d ", page_frames[j]);
    printf("\n");
  printf("Total page faults: %d\n", page_faults);
  return 0;
}
```

```
Page frames: -1 -1 -1 -1 -1 -1 -1 -1 1
Page frames: -1 -1 -1 -1 -1 -1 -1 1 2
Page frames: -1 -1 -1 -1 -1 -1 1 2 3
Page frames: -1 -1 -1 -1 -1 1 2 3 4
Page frames: -1 -1 -1 -1 -1 1 2 3 4
Page frames: -1 -1 -1 -1 -1 1 2 3 4
Page frames: -1 -1 -1 -1 -1 1 2 3 4 5
Page frames: -1 -1 -1 -1 1 2 3 4 5 6
Page frames: -1 -1 -1 -1 1 2 3 4 5 6
Page frames: -1 -1 -1 -1 1 2 3 4 5 6
Page frames: -1 -1 -1 -1 1 2 3 4 5 6
Page frames: -1 -1 -1 -1 1 2 3 4 5 6
Page frames: -1 -1 -1 1 2 3 4 5 6 7
Page frames: -1 -1 -1 1 2 3 4 5 6 7
Page frames: -1 -1 -1 1 2 3 4 5 6 7
Page frames: -1 -1 -1 1 2 3 4 5 6 7
Page frames: -1 -1 -1 1 2 3 4 5 6 7
Page frames: -1 -1 -1 1 2 3 4 5 6 7
Page frames: -1 -1 -1 1 2 3 4 5 6 7
Page frames: -1 -1 -1 1 2 3 4 5 6 7
Total page faults: 7
Process exited after 0.01232 seconds with return value 0
Press any key to continue . . .
```