



C Online
Compiler

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main.c

Run

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 #define MAX_RECORD_SIZE 100
6 #define MAX_FILE_SIZE 10
7
8 typedef struct {
9     char data[MAX_RECORD_SIZE];
10 } Record;
11
12 typedef struct {
13     Record records[MAX_FILE_SIZE];
14     int record_count;
15 } File;
16
17 // Function to initialize the file
18 void initialize_file(File *file) {
```

Output

Clear

```
Reading all records sequentially:
Reading Record 1: Record 1: This is the first record.
Reading Record 2: Record 2: This is the second record.
Reading Record 3: Record 3: This is the third record.
Reading Record 4: Record 4: This is the fourth record.
```

main.c

Run

Clear

```
1 #include <stdio.h>
2
3 #define FRAME_COUNT 3
4
5 int is_page_in_memory(int frames[], int page,
    int frame_count) {
6     for (int i = 0; i < frame_count; i++) {
7         if (frames[i] == page) {
8             return i;
9         }
10    }
11    return -1;
12 }
13
14 int find_optimal_page_to_replace(int frames[],
    int page_refs[], int current_index, int
    frame_count, int total_pages) {
15     int farthest_index = -1;
```

Reference 7: Frames: 7
Reference 0: Frames: 7 0
Reference 1: Frames: 7 0 1
Reference 2: Frames: 2 0 1
Reference 0: Frames: 2 0 1
Reference 3: Frames: 2 3 1
Reference 0: Frames: 0 3 1
Reference 4: Frames: 0 3 4
Reference 2: Frames: 2 3 4
Reference 3: Frames: 2 3 4
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