

## FIFO

```
#include <stdio.h>
```

```
void display(int frames[], int n) {  
    for (int i = 0; i < n; i++) {  
        printf(frames[i] == -1 ? " - " : " %d ", frames[i]);  
    }  
    printf("\n");  
}
```

```
int isPageInFrame(int page, int frames[], int n) {  
    for (int i = 0; i < n; i++) {  
        if (frames[i] == page) return 1;  
    }  
    return 0;  
}
```

```
void runFIFO(int ref_string[], int ref_len, int n) {  
    int frames[n], page_faults = 0, next = 0;  
    for (int i = 0; i < n; i++) frames[i] = -1;  
  
    printf("Page Replacement Process (FIFO):\n");  
    for (int i = 0; i < ref_len; i++) {  
        int page = ref_string[i];  
        if (!isPageInFrame(page, frames, n)) {  
            frames[next] = page;  
            next = (next + 1) % n;  
            page_faults++;  
        }  
        display(frames, n);  
    }  
    printf("Total Page Faults: %d\n\n", page_faults);  
}
```

```
int main() {  
    int n;  
    printf("Enter number of frames: ");  
    scanf("%d", &n);  
  
    int ref_string[] = {3, 4, 5, 6, 3, 4, 7, 3, 4, 5, 6, 7, 2, 4, 6};  
    int ref_len = sizeof(ref_string) / sizeof(ref_string[0]);
```

```
    runFIFO(ref_string, ref_len, n);  
    return 0;  
}
```