1. Construct a C program to simulate the First in First Out paging technique of memory management.

#include <stdio.h>

int main() {

int frames[10], pages[30], n, f, i, j, k, pointer = 0, faults = 0, found;

printf("Enter number of pages: ");

scanf("%d", &n);

printf("Enter the page reference string:\n");

for (i = 0; i < n; i++)

scanf("%d", &pages[i]);

printf("Enter number of frames: ");

scanf("%d", &f);

for (i = 0; i < f; i++)

frames[i] = -1;

printf("\nPage\tFrames\t\tPage Fault\n");

for (i = 0; i < n; i++) {

found = 0;

for (j = 0; j < f; j++) {

if (frames[j] == pages[i]) {

found = 1;

break;

}

}

if (!found) {

frames[pointer] = pages[i];

pointer = (pointer + 1) % f;

faults++;

}

printf("%d\t", pages[i]);

for (k = 0; k < f; k++) {

if (frames[k] != -1)

printf("%d ", frames[k]);

else

printf("- ");

}

printf("\t\t%s\n", found ? "No" : "Yes");

}

printf("\nTotal Page Faults = %d\n", faults);

return 0;

}