```c
#include <stdio.h>

int findOptimal(int pages[], int frames[], int n, int index, int frameCount) {
    int result = -1, farthest = index;

    for (int i = 0; i < frameCount; i++) {
        int j;
        for (j = index; j < n; j++) {
            if (frames[i] == pages[j]) {
                if (j > farthest) {
                    farthest = j;
                    result = i;
                }
                break;
            }
        }
        // If page not found in future, return this index
        if (j == n)
            return i;
    }

    // If all pages are going to be used, return the farthest
    return (result == -1) ? 0 : result;
}

int main() {
    int n, frameCount;

    printf("Enter number of pages: ");
    scanf("%d", &n);

    int pages[n];
    printf("Enter the page reference string:\n");
    for (int i = 0; i < n; i++) {
        scanf("%d", &pages[i]);
    }

    printf("Enter number of frames: ");
    scanf("%d", &frameCount);

    int frames[frameCount];
    int pageFaults = 0, filled = 0;

    for (int i = 0; i < frameCount; i++)
        frames[i] = -1; // initialize as empty

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

    for (int i = 0; i < n; i++) {
        int found = 0;
        for (int j = 0; j < frameCount; j++) {
            if (frames[j] == pages[i]) {
                found = 1;
                break;
            }
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        }

        if (!found) {
            if (filled < frameCount) {
                frames[filled++] = pages[i];
            } else {
                int replace = findOptimal(pages, frames, n, i + 1, frameCount);
                frames[replace] = pages[i];
            }
            pageFaults++;
            printf("%d\t", pages[i]);
            for (int j = 0; j < frameCount; j++)
                printf("%d ", frames[j]);
            printf("\tYes\n");
        } else {
            printf("%d\t", pages[i]);
            for (int j = 0; j < frameCount; j++)
                printf("%d ", frames[j]);
            printf("\tNo\n");
        }
    }

    printf("\nTotal Page Faults: %d\n", pageFaults);

    return 0;
}
```