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# PROGRAM TO IMPLEMENT PAGE REPLACEMENT ALGORITHMS - LFU

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**CODE:**

#include<stdio.h>

int main() {

int f, p;

int pages[50], frame[10], hit = 0, count[50], time[50];

int i, j, page, flag, least, minTime, temp;

printf("\n LFU \n");

printf("Enter no of frames : ");

scanf("%d", & f);

printf("Enter no of pages : ");

scanf("%d", & p);

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

frame[i] = -1;

}

for (i = 0; i < 50; i++) {

count[i] = 0;

}

printf("Enter page no : \n");

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

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

}

printf("\n");

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

count[pages[i]]++;

time[pages[i]] = i;

flag = 1;

least = frame[0];

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

if (frame[j] == -1 || frame[j] == pages[i]) {

if (frame[j] != -1) {

hit++;

}

flag = 0;

frame[j] = pages[i];

break;

}

if (count[least] > count[frame[j]]) {

least = frame[j];

}

}

if (flag) {

minTime = 50;

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

if (count[frame[j]] == count[least] && time[frame[j]] < minTime) {

temp = j;

minTime = time[frame[j]];

}

}

count[frame[temp]] = 0;

frame[temp] = pages[i];

}

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

printf("%d ", frame[j]);

}

printf("\n");

}

printf("Page hit = %d", hit);

return 0;

}

**OUTPUT:**

