#include<stdio.h>

int findLRU(int time[],int n){

int i, minimum=time[0],pos=0;

for(i=1;i<n;i++){

if(time[i]<minimum){

minimum=time[i];

pos=1;

}

}

return pos;

}

int main(){

int no\_of\_frames,no\_of\_pages, frames [10], pages[30], counter = 0, time[10], flag1, flag2, i, j, pos, faults = 0;

printf("Enter number of frames: ");

scanf("%d", &no\_of\_frames);

printf("Enter number of pages: ");

scanf("%d",&no\_of\_pages);

printf("Enter reference string: ");

for(i = 0;i < no\_of\_pages;++i)

{

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

}

for(i = 0;i < no\_of\_frames;++i)

{

frames[i]=-1;

}

for(i = 0;i < no\_of\_pages;++i)

{

flag1 = flag2 = 0;

for(j = 0;j < no\_of\_frames;++j)

{

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

{

counter++;

time[j] = counter;

flag1 = flag2 = 1;

break;

}

}

if(flag1 == 0)

{

for(j = 0;j < no\_of\_frames;++j)

{

if(frames[j] == -1)

{

counter++;

faults++;

frames[j] = pages[i];

time[j] = counter;

flag2 = 1;

break;

}

}

}

if(flag2 == 0)

{

pos = findLRU(time, no\_of\_frames);

counter++;

faults++;

frames[pos] = pages[i];

time[pos] = counter;

}

printf("\n");

for(j = 0;j < no\_of\_frames;j++)

{

printf("%d\t",frames[j]);

}

}

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

return 0;

}