

```
#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 = i;
```

```
        }
```

```
    }
```

```
    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;  
}
```