

LRU

```
#include<stdio.h>
main()
{
int q[20],p[50],c=0,c1,d,f,i,j,k=0,n,r,t,b[20],c2[20];
printf("Enter no of pages:");
scanf("%d",&n);
printf("Enter the reference string:");
for(i=0;i<n;i++)
    scanf("%d",&p[i]);
printf("Enter no of frames:");
scanf("%d",&f);
q[k]=p[k];
printf("\n\t%d\n",q[k]);
c++;
k++;
for(i=1;i<n;i++)
{
    c1=0;
    for(j=0;j<f;j++)
    {
        if(p[i]!=q[j])
            c1++;
    }
    if(c1==f)
    {
        c++;
        if(k<f)
        {
            q[k]=p[i];
            k++;
            for(j=0;j<k;j++)
                printf("\t%d",q[j]);
            printf("\n");
        }
        else
        {
            for(r=0;r<f;r++)
            {
                c2[r]=0;
                for(j=i-1;j<n;j--)
                {
                    if(q[r]!=p[j])
                        c2[r]++;
                    else
                        break;
                }
            }
            for(r=0;r<f;r++)
                b[r]=c2[r];
            for(r=0;r<f;r++)
```

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        {
            for(j=r;j<f;j++)
            {
                if(b[r]<b[j])
                {
                    t=b[r];
                    b[r]=b[j];
                    b[j]=t;
                }
            }
        }
        for(r=0;r<f;r++)
        {
            if(c2[r]==b[0])
            q[r]=p[i];
            printf("\t%d",q[r]);
        }
        printf("\n");
    }
}
printf("\nThe no of page faults is %d",c);
}

```

OUTPUT

Enter no of pages:10

Enter the reference string:2 3 4 2 1 3 7 5 4 3

Enter no of frames:3

2		
2	3	
2	3	4
2	1	4
2	1	3
7	1	3
7	5	3
7	5	4
3	5	4

The no of page faults is 9