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#include<iostream.h>
#define maxn 10000
void input(int a[], int &n);
void createtable(int a[], int n);
void result(int a[], int n);
int a[maxn],L[maxn],P[maxn],n;
int main()
{
    input(a,n);
    createtable(a,n);
    result(a,n);
    return 0;
}

void input(int a[], int &n)
{
    FILE *f;
    f=fopen("sequence.inp","rt");
    fscanf(f,"%d",&n);
    for(int i=1;i<=n;i++)
        fscanf(f,"%d",&a[i]);
    fclose(f);
}

void createtable(int a[], int n)
{
    for (int i=1;i<=n;i++)
    {
        int maxLj=0;
        int maxPi=0;
        for (int j=i-1;j>=1;j--)
            if (a[j]<=a[i]&& L[j]>maxLj)
            {
                maxLj=L[j];
                maxPi=j;
            }
        L[i]=maxLj+1;
        P[i]=maxPi;
    }
}

void result(int a[], int n)
{
    int maxL=0,pos;
    for (int i=1;i<=n;i++)
        if (L[i]>maxL)
        {
            maxL=L[i];
            pos=i;
        }
}

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    cout<<"result: "<<maxL<<": "<<endl;;
    int i=pos;
    while (P[i]!=0)
    {
        cout<<a[i]<<" ";
        i=P[i];
    }
    cout<<a[i]<<" ";
    cout<<endl;
}
/*
sequence.inp
10
2 8 11 3 5 9 10 4 17 6
*/
```