

```
main.c x
HW11 (全局范围)
1 #define _CRT_SECURE_NO_WARNINGS
2 #include <stdio.h>
3 #include <string.h>
4
5 #define PartsInventory 100
6 #define Maxsize 100
7
8 typedef struct parts {
9     int partnumber;
10    char partname[Maxsize];
11    int partquantity;
12 }Parts;
13
14 int num_parts = 0;
15
16 void InitParts(Parts parts[]);
17 void InsertParts(Parts parts[]);
18 void SearchParts(Parts parts[]);
19 void UpdataParts(Parts parts[]);
20 void PrintParts(Parts parts[]);
21
22 int main()
23 {
24     Parts parts[PartsInventory];
25     InitParts(parts);
26     char code = 0;
27     do
```

```
27     do
28     {
29         printf("Enter operation code:");
30         scanf(" %c", &code);
31         switch (code)
32         {
33             case 'i':InsertParts(parts); break;
34             case 's':SearchParts(parts); break;
35             case 'u':UpdataParts(parts); break;
36             case 'p':PrintParts(parts); break;
37             case 'q':break;
38             default:break;
39         }
40     } while (code != 'q');
41
42     return 0;
43 }
44
45 void InitParts(Parts parts[])
46 {
47     int i = 0;
48     for (i = 0; i < PartsInventory; i++)
49     {
50         parts[i].partnumber = 0;
51         parts[i].partquantity = 0;
```

```
52         strcpy(&parts[i].partname, " ");
53     }
54 }
55
56 void InsertParts(Parts parts[])
57 {
58     if (num_parts < PartsInventory)
59     {
60         printf("Enter part number:");
61         scanf("%d", &parts[num_parts].partnumber);
62         printf("Enter part name:");
63         getchar();
64         gets(&parts[num_parts].partname);
65         printf("Enter quantity on hand:");
66         scanf("%d", &parts[num_parts].partquantity);
67         num_parts++;
68     }
69     else
70     {
71         printf("Error! the database is full\n");
72     }
73 }
74
75 void SearchParts(Parts parts[])
```



```
main.c * X
HW11 SearchParts(Parts parts[])
1 #define _CRT_SECURE_NO_WARNINGS
2 #include <stdio.h>
3 #include <string.h>
4
5 #define PartsInventory 100
6 #define Maxsize 100
7
8 typedef struct parts {
9     int partnumber;
10    char partname[Maxsize];
11    int partquantity;
12    char category[25];
13 }Parts;
14
15 int num_parts = 0;
16
17 void InitParts(Parts parts[]);
18 void InsertParts(Parts parts[]);
19 void SearchParts(Parts parts[]);
20 void UpdataParts(Parts parts[]);
21 void PrintParts(Parts parts[]);
22
23 int main()
24 {
25     Parts parts[PartsInventory];
26     InitParts(parts);
27     char code = 0;
```

```
27     char code = 0;
28     do
29     {
30         printf("Enter operation code:");
31         scanf(" %c", &code);
32         switch (code)
33         {
34             case 'i':InsertParts(parts); break;
35             case 's':SearchParts(parts); break;
36             case 'u':UpdataParts(parts); break;
37             case 'p':PrintParts(parts); break;
38             case 'q':break;
39             default:break;
40         }
41     } while (code != 'q');
42
43     return 0;
44 }
45
46
47 void InitParts(Parts parts[])
48 {
49     int i = 0;
50     for (i = 0; i < PartsInventory; i++)
51     {
```

```
52         parts[i].partnumber = 0;
53         parts[i].partquantity = 0;
54         char partname[Maxsize] = { '\0' };
55         strcpy(&parts[i].partname, partname);
56         strcpy(&parts[i].category, partname);
57     }
58 }
59
60 void InsertParts(Parts parts[])
61 {
62     if (num_parts < PartsInventory)
63     {
64         printf("Enter part number:");
65         scanf("%d", &parts[num_parts].partnumber);
66         printf("Enter part name:");
67         getchar();
68         gets(&parts[num_parts].partname);
69         printf("Enter quantity on hand:");
70         scanf("%d", &parts[num_parts].partquantity);
71         printf("Enter category:");
72         getchar();
73         gets(&parts[num_parts].category);
74         num_parts++;
75     }
76     else
77     {
78         printf("Error! the database is full!\n");
```



```
Microsoft Visual Studio 调试
Enter operation code:i
Enter part number:528
Enter part name:Disk Drive
Enter quantity on hand:10
Enter category:computer
Enter operation code:s
Enter part number:528
Part name :Disk Drive
Quantity on hand:10
Category name :computer
Enter operation code:s
Enter part number:914
Part not found.
Enter operation code:i
Enter part number:914
Enter part name:Printer cable
Enter quantity on hand:5
Enter category:printer
Enter operation code:u
Enter part number:528
Enter change in quantity on hand:-2
Enter operation code:s
Enter part number:528
Part name :Disk Drive
Quantity on hand:8
Category name :computer
Enter operation code:p
Part Number Part Name Quantity on Hand Category name
528      Disk Drive      8      computer
914      Printer cable    5      printer
Enter operation code:q

C:\Users\smile\我的云端硬盘\Electrical Engineering\2023? 2??\????????(??)\Lab6HW\HW11\HW11\x64\Debug\HW11.exe (进程 29484)已退出，代码为 0。
按任意键关闭此窗口。 . . .]
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```
main.c x
HW11
1 #define _CRT_SECURE_NO_WARNINGS
2 #include <stdio.h>
3 #include <string.h>
4
5 #define PartsInventory 100
6 #define Maxsize 100
7
8 typedef struct parts {
9     int partnumber;
10    char partname[Maxsize];
11    int partquantity;
12    char category[25];
13 }Parts;
14
15 int num_parts = 0;
16
17 void InitParts(Parts parts[]);
18 void InsertParts(Parts parts[]);
19 void SearchParts(Parts parts[]);
20 void UpdataParts(Parts parts[]);
21 void DeleteParts(Parts parts[]);
22 void PrintParts(Parts parts[]);
23
```

```
23
24 int main()
25 {
26     Parts parts[PartsInventory];
27     InitParts(parts);
28     char code = 0;
29     do
30     {
31         printf("Enter operation code:");
32         scanf(" %c", &code);
33         switch (code)
34         {
35             case 'i':InsertParts(parts); break;
36             case 's':SearchParts(parts); break;
37             case 'u':UpdataParts(parts); break;
38             case 'p':PrintParts(parts); break;
39             case 'd':DeleteParts(parts); break;
40             case 'q':break;
41             default:break;
42         }
43     } while (code != 'q');
44
45 }
```

```

46     return 0;
47 }
48
49 void InitParts(Parts parts[])
50 {
51     int i = 0;
52     for (i = 0; i < PartsInventory; i++)
53     {
54         parts[i].partnumber = 0;
55         parts[i].partquantity = 0;
56         char partname[Maxsize] = { '\0' };
57         strcpy(&parts[i].partname, partname);
58         strcpy(&parts[i].category, partname);
59     }
60 }
61
62 void InsertParts(Parts parts[])
63 {
64     if (num_parts < PartsInventory)
65     {
66         printf("Enter part number:");
67         scanf("%d", &parts[num_parts].partnumber);
68         printf("Enter part name:");
69         getchar();
70         gets(&parts[num_parts].partname);

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71         gets(&parts[num_parts].partname);
72         printf("Enter quantity on hand:");
73         scanf("%d", &parts[num_parts].partquantity);
74         printf("Enter category:");
75         getchar();
76         gets(&parts[num_parts].category);
77         num_parts++;
78     }
79     else
80     {
81         printf("Error! the database is full\n");
82     }
83 }
84
85 void SearchParts(Parts parts[])
86 {
87     int num = 0, i = 0;
88     printf("Enter part number:");
89     scanf("%d", &num);
90     while (parts[i].partnumber != num && parts[i].partnumber != 0)
91     {
92         i++;
93     }
94     if (parts[i].partnumber != 0)
95     {

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96         printf("Part name :%s\n", parts[i].partname);
97         printf("Quantity on hand:%d\n", parts[i].partquantity);
98         printf("Category name :%s\n", parts[i].category);
99     }
100     else
101     {
102         printf("Part not found.\n");
103     }
104 }
105
106 void UpdataParts(Parts parts[])
107 {
108     int num = 0, q = 0, i = 0;
109     printf("Enter part number:");
110     scanf("%d", &num);
111     while (parts[i].partnumber != num && parts[i].partnumber != 0)
112     {
113         i++;
114     }
115     if (parts[i].partnumber != 0)
116     {
117         printf("Enter change in quantity on hand:");
118         scanf("%d", &q);
119         parts[i].partquantity += q;
120     }
121 }

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125     printf("Error! It is not in the database!\n");
126 }
127 }
128
129 void PrintParts(Parts parts[])
130 {
131     printf("Part Number Part Name Quantity on Hand Category name\n");
132     int i = 0;
133     while (parts[i].partnumber != 0)
134     {
135         printf("%d    %s    %d    %s\n", parts[i].partnumber, parts[i].partname, parts[i].partquantity, parts[i].category);
136         i++;
137     }
138 }
139
140 void DeleteParts(Parts parts[])
141 {
142     int num = 0, i = 0;
143     printf("Enter the part number you want to delete:");
144     scanf("%d", &num);
145     while (parts[i].partnumber != num && parts[i].partnumber != 0)
146     {
147         i++;
148     }
149     if (parts[0].partnumber == 0)
150     {

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147         i++;
148     }
149     if (parts[0].partnumber == 0)
150     {
151         printf("Error!The database is empty!\n");
152     }
153     else if (parts[i].partnumber == 0)
154     {
155         printf("Error!The part is not in the database!\n");
156     }
157     else
158     {
159         while (parts[++i].partnumber == 0)
160         {
161             parts[i-1] = parts[i];
162         }
163     }
164 }
165 }
166

```

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C:\Users\umile\我的云端存储\
Enter operation code:i
Enter part number:528
Enter part name:Disk Drive
Enter quantity on hand:10
Enter category:computer
Enter operation code:i
Enter part number:111
Enter part name:cd
Enter quantity on hand:2
Enter category:th
Enter operation code:d
Enter the part number you want to delete:123
Error!The part is not in the database!
Enter operation code:111
Enter operation code:Enter operation code:Enter operation code:d
Enter the part number you want to delete:111
Enter operation code:p
Part Number Part Name Quantity on Hand Category name
528      Disk Drive      10      computer
Enter operation code:

```