

12. Design a C program to organize the file using two level directory structure.

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1  #include<string.h>
2  #include<stdlib.h>
3  #include<stdio.h>
4  struct
5  {
6      char dname[10],fname[10][10];
7      int fcnt;
8      }dir[10];
9  int main()
10 {
11     int i,ch,dcnt,k;
12     char f[30], d[30];
13     dcnt=0;
14     while(1)
15     {
16         printf("\n\n1. Create Directory\t2. Create File\t3. Delete File");
17         printf("\n4. Search File\t\t5. Display\t6. Exit\tEnter your choice -- ");
18         scanf("%d",&ch);
19         switch(ch)
20         {
21             case 1: printf("\nEnter name of directory -- ");
22                     scanf("%s", dir[dcnt].dname);
23                     dir[dcnt].fcnt=0;
24                     dcnt++;
25                     printf("Directory created");
26                     break;
27             case 2: printf("\nEnter name of the directory -- ");
28                     scanf("%s",d);
29                     for(i=0;i<dcnt;i++)
30                         if(strcmp(d,dir[i].dname)==0)
31                         {
32                             printf("Enter name of the file -- ");
33                             scanf("%s",dir[i].fname[dir[i].fcnt]);
34                             printf("File created");
35                             break;
36                         }
37             case 3:
38             case 4:
39             case 5:
40             case 6:
41                 break;
42         }
43     }
44 }
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32 printf("Enter name of the file -- ");
33 scanf("%s",dir[i].fname[dir[i].fcnt]);
34 printf("File created");
35 break;
36 }
37 if(i==dcnt)
38 printf("Directory %s not found",d);
39 break;
40 case 3: printf("\nEnter name of the directory -- ");
41 scanf("%s",d);
42 for(i=0;i<dcnt;i++)
43 {
44 if(strcmp(d,dir[i].dname)==0)
45 {
46 printf("Enter name of the file -- ");
47 scanf("%s",f);
48 for(k=0;k<dir[i].fcnt;k++)
49 {
50 if(strcmp(f, dir[i].fname[k])==0)
51 {
52 printf("File %s is deleted ",f);
53 dir[i].fcnt--;
54 strcpy(dir[i].fname[k],dir[i].fname[dir[i].fcnt]);
55 goto jmp;
56 }
57 }
58 printf("File %s not found",f);
59 goto jmp;
60 }
61 }
62 printf("Directory %s not found",d);
63 jmp : break;
64 case 4: printf("\nEnter name of the directory -- ");
65 scanf("%s",d);
66 for(i=0;i<dcnt;i++)
67 {
68 if(strcmp(d,dir[i].dname)==0)
69 {
70 printf("Enter the name of the file -- ");
71 scanf("%s",f);
72 for(k=0;k<dir[i].fcnt;k++)
73 {
74 if(strcmp(f, dir[i].fname[k])==0)
75 {
76 printf("File %s is found ",f);
77 goto jmp1;
78 }
79 }
80 printf("File %s not found",f);
81 goto jmp1;
82 }
83 }
84 printf("Directory %s not found",d);
85 jmp1: break;
86 case 5: if(dcnt==0)

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68     if(strcmp(d,dir[i].dname)==0)
69     {
70         printf("Enter the name of the file -- ");
71         scanf("%s",f);
72         for(k=0;k<dir[i].fcnt;k++)
73         {
74             if(strcmp(f, dir[i].fname[k])==0)
75             {
76                 printf("File %s is found ",f);
77                 goto jmp1;
78             }
79         }
80         printf("File %s not found",f);
81         goto jmp1;
82     }
83     printf("Directory %s not found",d);
84     jmp1: break;
85     case 5: if(dcnt==0)
86         printf("\nNo Directory's ");
87     else
88     {
89         printf("\nDirectory\tFiles");
90         for(i=0;i<dcnt;i++)
91         {
92             printf("\n%s\t\t",dir[i].dname);
93             for(k=0;k<dir[i].fcnt;k++)
94                 printf("\t%s",dir[i].fname[k]);
95         }
96     }
97     break;
98     default:exit(0);
99 }
100 }
101 }
102

```

Output:

```

1. Create Directory    2. Create File    3. Delete File
4. Search File        5. Display        6. Exit Enter your choice -- 1

Enter name of directory -- operating
Directory created

1. Create Directory    2. Create File    3. Delete File
4. Search File        5. Display        6. Exit Enter your choice -- 3

Enter name of the directory -- system
Directory system not found

1. Create Directory    2. Create File    3. Delete File
4. Search File        5. Display        6. Exit Enter your choice --

```