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EXP NO: 12

FILE ORGANIZATION TECHNIQUE SINGLE AND TWO LEVEL DIRECTORY

PROGRAM

```c
#include <stdio.h>
#include <string.h>

struct {
    char dname[10], fname[10][10];
    int fcnt;
} dir;

int main() {
    int i;
    dir.fcnt = 0;

    printf("Enter the name of directory: ");
    scanf("%s", dir.dname);

    printf("Enter the number of files: ");
    scanf("%d", &dir.fcnt);

    for (i = 0; i < dir.fcnt; i++) {
        printf("Enter file name %d: ", i + 1);
        scanf("%s", dir.fname[i]);
    }

    printf("\nDirectory Name: %s\n", dir.dname);
    printf("Files:\n");
    for (i = 0; i < dir.fcnt; i++) {
        printf("  %s\n", dir.fname[i]);
    }

    return 0;
```

OUTPUT

```
[cse81@localhost ~]$ ./a.out
Enter the name of directory: Projects
Enter the number of files: 2
Enter file name 1: fileA.txt
Enter file name 2: fileB.c

Directory Name: Projects
Files:
  fileA.txt
  fileB.c
```

PROGRAM

```c
#include <string.h>

struct {
    char dname[10], fname[10][10];
    int fcnt;
} dir[10];

int main() {
    int i, j, dc;

    printf("Enter the name of dir/file(under null): ");
    char root[10];
    scanf("%s", root);

    printf("How many users(for %s): ", root);
    scanf("%d", &dc);

    for (i = 0; i < dc; i++) {
        printf("Enter name of dir/file(under %s): ", root);
        scanf("%s", dir[i].dname);

        printf("How many files(for %s): ", dir[i].dname);
        scanf("%d", &dir[i].fcnt);

        for (j = 0; j < dir[i].fcnt; j++) {
            printf("Enter name of dir/file(under %s): ", dir[i].dname);
            scanf("%s", dir[i].fname[j]);
        }
    }

    // Output
    printf("\nTwo-Level Directory Structure:\n");
    for (i = 0; i < dc; i++) {
        printf("User Directory: %s\n", dir[i].dname);
        printf("  Files:\n");
        for (j = 0; j < dir[i].fcnt; j++) {
            printf("    %s\n", dir[i].fname[j]);
        }
    }

    return 0;
}
```

OUTPUT

```
Enter the name of dir/file(under null): Hai
How many users(for Hai): 1
Enter name of dir/file(under Hai): Hello
How many files(for Hello): 1
Enter name of dir/file(under Hello): welcome

Two-Level Directory Structure:
User Directory: Hello
  Files:
    welcome
```