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Exp:12

File Organization Technique – Single and Two level Directory

Aim:

To implement File Organization Structures in C are

- a. Single Level Directory**
- b. Two-Level Directory**
- c. Hierarchical Directory Structure**
- d. Directed Acyclic Graph Structure**

CODE:

A) Single Level Program :

```
#include<stdio.h> int main(){
    int n,i;
    char files[10][20];
    printf("Enter the number of files:"); scanf("%d",&n);
    for(i=0;i<n;i++){
        printf("Enter the file %d:",i+1); scanf("%s",files[i]); printf("\nRoot Directory\n"); for(int j=0;j<=i;j++){
            printf("| \n--> %s\n",files[j]);
        }
        printf("\n");
    }
    return 0;
}
```

OUTPUT:

```
Enter the number of files:2
Enter the file 1:J
```

```
Root Directory
```

```
|
--> J
```

```
Enter the file 2:B
```

```
Root Directory
```

```
|
--> J
|
--> B
```

B) Two Level Directory Structure

Program :

```
#include
<stdio.h>

#include
<string.h>

int main() {
    char root[20], subdir[20],
    file[20]; int subCount,
    fileCount;
    printf("Enter the name of dir/file (under null):
    "); scanf("%s", root);
    printf("How many users (for %s): ",
    root); scanf("%d", &subCount);
    if (subCount > 0) {
        printf("Enter name of dir/file (under %s): ",
        root); scanf("%s", subdir);
        printf("How many files (for %s): ", subdir);
        scanf("%d", &fileCount);
```

```

        if (fileCount > 0) {
            printf("Enter name of dir/file (under %s): ",
                subdir); scanf("%s", file);
        }
    }

    printf("\n%s\n", root);
    if
    (subCo
unt > 0)
    {
        printf("
        |\n%s\n",
        subdir); if
        (fileCount >
        0) {
            printf(" |\n%s\n", file);
        }
    }
    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
```

```
Hai
|
Hello
|
Welcome
```