OPERATING SYSTEM - CS23431

EXP 12

FILE ORGANISATION TECHNIQUE – SINGLE AND TWO LEVEL DIRECTORY

NAME: LOKAA V

ROLL NO: 231501085

PROGRAM:

Single level directory:

```c
#include <stdio.h>
struct directory{
 char dname[20];
 char fname[10][20];
 int f_count;
};
int main()
 {
 struct directory d;
 printf("Enter directory name: ");
 scanf("%s",d.dname);
 printf("Enter number of files in the directory: ");
 scanf("%d",&d.f_count);
 printf("Enter names for files:\n");
 for(int i=0;i<d.f_count;i++)
 {
 printf("Enter name for file %d: ",i+1);
 scanf("%s",d.fname[i]);
 printf("\n\t\t%s\n",d.dname);
 for (int j = 0; j <= i; j++) {
 printf("\t\t |\n");
 printf("\t\t --> (%s)\n", d.fname[j]);
 }
 printf("\n");
 }
```

```c
  return 0;
}
```

OUTPUT:

```
Enter directory name: SUBJECTS
Enter number of files in the directory: 2
Enter names for files:
Enter name for file 1: JAVA

                SUBJECTS
                 |
                 --> (JAVA)

Enter name for file 2: PYTHON

                SUBJECTS
                 |
                 --> (JAVA)
                 |
                 --> (PYTHON)
```

Two level directory:

```c
#include <stdio.h>
#include<string.h>
struct directory{
 char dname[20];
 char subnames[10][20];
 int sub_count;
};
int main()
{
 struct directory d;
 struct directory sub[10];
 printf("Enter the name of dir/file(under null): ");
scanf("%s",d.dname);
 printf("How many users(for %s): ",d.dname);
scanf("%d",&d.sub_count);
 for(int i=0;i<d.sub_count;i++)
 {
 printf("Enter the name of dir/file(under %s): ",d.dname);
scanf("%s",d.subnames[i]);
 printf("How many users(for %s): ",d.subnames[i]);
```

```c
scanf("%d", &sub[i].sub_count);
strcpy(sub[i].dname, d.subnames[i]);
for (int j = 0; j < sub[i].sub_count; j++) {
printf("Enter name of dir/file(under %s): ", sub[i].dname);
scanf("%s", sub[i].subnames[j]);
}

}
for (int i = 0; i < d.sub_count; i++) {
for (int j = 0; j < sub[i].sub_count; j++) {
printf("\t\t | %s |\n", d.dname);
printf("\t\t |\n");
printf("\t\t | %s |\n", sub[i].dname);
printf("\t\t |\n");
printf("\t\t ( %s )\n", sub[i].subnames[j]);
}
printf("\n");
}
return 0;
}
```

OUTPUT:

```
Enter the name of dir/file(under null): SUBJECTS
How many users(for SUBJECTS): 2
Enter the name of dir/file(under SUBJECTS): JAVA
How many users(for JAVA): 1
Enter name of dir/file(under JAVA): STRINGS
Enter the name of dir/file(under SUBJECTS): PYTHON
How many users(for PYTHON): 1
Enter name of dir/file(under PYTHON): MATPLOT
                        | SUBJECTS |
                             |
                        | JAVA |
                             |
                        ( STRINGS )

                        | SUBJECTS |
                             |
                        | PYTHON |
                             |
                        ( MATPLOT )
```