A REPORT OF C PROGRAMMING PROJECT ON

"FILE ORGANIZATION TECHNIQUES"

at

[MODEL INSTITUTE OF ENGINEERING AND TECHNOLOGY]

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD

OF THE DEGREE

BACHELOR OF TECHNOLOGY

(Computer Engineering)

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BRANCH: CSE

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ACKNOWLEDGEMENT

Through this section of my report, we want to present our gratitude towards our institute MIET, From where we pursued our project and gained an experience worth to enhance our Credibility for our career. Being able to work on projects, that require you to analyze and solve a problem that exists in real world, is an experience that one can achieve rarely, and we are happy and thankful to get that chance here.

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PROJECT SUMMARY

1.Introduction

File organization refers to the way data is stored in a file. File organization is very important because it determines the methods of access , efficiency, flexibility and storage devices to use.

2.Project Profile

Project title:"FILE ORGANIZATION TECHNIQUES"
College: MIET,Jammu
Platform Language: C
Guide: Dr. Swati Goel
Dept.: Computer Science
MIET,Jammu(Autonomous)

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3.Scope of the project:

The Scope of file organization is that we can access data at any moment and it is in a more organized way and we can easily access it any moment while handling the project and keep the documentation together with the project technical analysis and some PHP and CSS files for a web-based project.

4. TECHNICAL DETAILS (Coding)

PROGRAM TO SIMULATE SINGLE LEVEL DIRECTORY

```c
//Write C programs to simulate the Single level directory File organization techniques//
#include<stdlib.h>
#include<string.h>
#include<stdio.h>
struct
{
char dname[10],fname[10][10];
int fcnt;
}dir;
void main()
{
int i,ch;
char f[30];
dir.fcnt = 0;
printf("\nEnter name of directory -- ");
scanf("%s", dir.dname);
while(1)
{
printf("\n\n1. Create File\t2. Delete File\t3. Search File \n 4. Display Files\t5. Exit\nEnter your choice -- ");
scanf("%d",&ch);
switch(ch)
{
case 1: printf("\nEnter the name of the file -- ");
scanf("%s",dir.fname[dir.fcnt]);
dir.fcnt++;
break;
case 2: printf("\nEnter the name of the file -- ");
scanf("%s",f);
for(i=0;i<dir.fcnt;i++)
{
if(strcmp(f, dir.fname[i])==0)
{
printf("File %s is deleted ",f);
strcpy(dir.fname[i],dir.fname[dir.fcnt-1]); break; } }
if(i==dir.fcnt) printf("File %s not found",f);
else
```

```
for(i=0;i<dir.fcnt;i++)
{
if(strcmp(f, dir.fname[i])==0)
{
printf("File %s is deleted ",f);
strcpy(dir.fname[i],dir.fname[dir.fcnt-1]); break; } }
if(i==dir.fcnt) printf("File %s not found",f);
else
dir.fcnt--;
break;
case 3: printf("\nEnter the name of the file -- ");
scanf("%s",f);
for(i=0;i<dir.fcnt;i++)
{
if(strcmp(f, dir.fname[i])==0)
{
printf("File %s is found ", f);
break;
}
}
if(i==dir.fcnt)
printf("File %s not found",f);
break;
case 4: if(dir.fcnt==0)
printf("\nDirectory Empty");
else
{
printf("\nThe Files are -- ");
for(i=0;i<dir.fcnt;i++)
printf("\t%s",dir.fname[i]);
}
break;
default: exit(0);
}
}
}
```

(OUTPUT)

```
Enter name of directory -- oslab


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

Enter the name of the file -- group3


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

Enter the name of the file -- group3
File group3 is found

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

The Files are --        group3

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


...Program finished with exit code 0
Press ENTER to exit console.
```

PROGRAM TO SIMULATE TWO LEVEL DIRECTORY

```c
//Write C programs to simulate the Two level directory File organization techniques//
#include<string.h>
#include<stdlib.h>
#include<stdio.h>
struct
{
char dname[10],fname[10][10];
int fcnt;
}dir[10];
void main()
{
int i,ch,dcnt,k;
char f[30], d[30];
dcnt=0;
while(1)
{
printf("\n\n1. Create Directory\t2. Create File\t3. Delete File");
printf("\n4. Search File\t\t5. Display\t6. Exit\tEnter your choice -- ");
scanf("%d",&ch);
switch(ch)
{
case 1: printf("\nEnter name of directory -- ");
scanf("%s", dir[dcnt].dname);
dir[dcnt].fcnt=0;
dcnt++;
printf("Directory created");
break;
case 2: printf("\nEnter name of the directory -- ");
scanf("%s",d);
for(i=0;i<dcnt;i++)
if(strcmp(d,dir[i].dname)==0)
{
printf("Enter name of the file -- ");
scanf("%s",dir[i].fname[dir[i].fcnt]);
printf("File created");
break;
```

```
break;
}
if(i==dcnt)
printf("Directory %s not found",d);
break;
case 3: printf("\nEnter name of the directory -- ");
scanf("%s",d);
for(i=0;i<dcnt;i++)
{
if(strcmp(d,dir[i].dname)==0)
{
printf("Enter name of the file -- ");
scanf("%s",f);
for(k=0;k<dir[i].fcnt;k++)
{
if(strcmp(f, dir[i].fname[k])==0)
{
printf("File %s is deleted ",f);
dir[i].fcnt--;
strcpy(dir[i].fname[k],dir[i].fname[dir[i].fcnt]);
goto jmp;
}
}
printf("File %s not found",f);
goto jmp;
}
}
printf("Directory %s not found",d);
jmp : break;
case 4: printf("\nEnter name of the directory -- ");
scanf("%s",d);
for(i=0;i<dcnt;i++)
{
if(strcmp(d,dir[i].dname)==0)
{
printf("Enter the name of the file -- ");
```

```
69  if(strcmp(d,dir[i].dname)==0)
70  {
71  printf("Enter the name of the file -- ");
72  scanf("%s",f);
73  for(k=0;k<dir[i].fcnt;k++)
74  {
75  if(strcmp(f, dir[i].fname[k])==0)
76  {
77  printf("File %s is found ",f);
78  goto jmp1;
79  }
80  }
81  printf("File %s not found",f);
82  goto jmp1;
83  }
84  }
85  printf("Directory %s not found",d);
86  jmp1: break;
87  case 5: if(dcnt==0)
88  printf("\nNo Directory's ");
89  else
90  {
91  printf("\nDirectory\tFiles");
92  for(i=0;i<dcnt;i++)
93  {
94  printf("\n%s\t\t",dir[i].dname);
95  for(k=0;k<dir[i].fcnt;k++)
96  printf("\t%s",dir[i].fname[k]);
97  }
98  }
99  break;
100 default:exit(0);
101 }
102 }
103 }
```

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 -- os
Directory created

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

Enter name of the directory -- os
Enter name of the file -- group3
File 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 -- os
Enter name of the file -- group3
File group3 not found

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

Enter name of the directory -- os
Enter the name of the file -- group3
File group3 not found

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

Directory       Files
os

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

(APPENDIX)

BOOK:

OPERATING SYSTEM BY H.M. DEITEL

REFERENCES:

1)www.en.wikipedia.org

2)www.scribd.com