**SSN COLLEGE OF ENGINEERING (Autonomous)**

**Affiliated to Anna University**

**DEPARTMENT OF CSE**

**UCS 1211 PROGRAMMING IN C LABORATORY**

**A7: File Handling in C**

================================================================

**REGISTRATION NO: 185001080**

**NAME: KSHITIJ SHARMA**

**CLASS: CSE-B (SEMESTER-2)**

**1)Program name: To accept file name as command line and to copy the contents from one file to another.**

#include<stdio.h>

#include<string.h>

int main(int argc, char\* argv[])

{

char a[100],p[100];

FILE \*fp,\*fx;

fp=fopen(argv[1],"w");

if((fp==NULL))

{

printf("\n file1 does not exists");

}

printf("\n enter the text which you want in the file:");

scanf("%[^\n]",a);

fprintf(fp,"%s",a);

fclose(fp);

fp=fopen(argv[1],"r");

fx=fopen(argv[2],"w");

if((fp==NULL))

{

printf("\n file1 does not exists");

}

if((fx==NULL))

{

printf("\n file2 does not exists");

}

while(fgets(p,100,fp)!=NULL)

{

fputs(p,fx);

}

fclose(fp);

fclose(fx);

fx=fopen(argv[2],"r");

printf(“the copied text is”);

fprintf(stdout,"\n %s",p);

}

**Output:**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment7$ gcc a7.1.c file1.txt,file2.txt

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment7$ ./a.out

enter the text which you want in the file: hi what is up

the copied text is: hi what is up

**2)Program name: To create a interactive program to maintain a list of names, address and telephone no in a file and perform operations such as adding a new record, modifying a existing record, retrive and display a entire record and also to list all the records using fscanf and fprintf.**

#include<stdio.h>

#include<string.h>

struct record

{

char name[50], address[50], phone[20];

};

void append()

{

FILE \*fp;

struct record s;

fp=fopen("record.txt","a");

printf("Enter name, address and phone no.\n");

scanf(" %[^\n] %[^\n] %[^\n]",s.name,s.address,s.phone);

fprintf(fp, "%s\n%s\n%s\n", s.name,s.address,s.phone);

fclose(fp);

}

void modify()

{

char x[50],y[50],z[50];

struct record s;

FILE \*fp1,\*fp2;

fp1=fopen("record.txt","r");

fp2=fopen("temp.txt","w");

printf("Enter name: ");

scanf("%s",x);

while((fscanf(fp1,"%[^\n]\n%[^\n]\n%[^\n]\n",s.name,s.address,s.phone))!=EOF)

{

if(strcmp(s.name,x)==0)

{

printf("Enter new address and number\n");

scanf(" %[^\n] %[^\n]",y,z);

fprintf(fp2, "%s\n%s\n%s\n",x,y,z);

}

else

fprintf(fp2, "%s\n%s\n%s\n",s.name,s.address,s.phone);

}

fclose(fp1);

fclose(fp2);

remove("record.txt");

rename("temp.txt","record.txt");

printf("Record modified\n");

}

void display()

{

FILE \*fp;

fp=fopen("record.txt","r");

char x[50];

struct record s;

printf("Enter name: ");

scanf("%s",x);

printf("Name Address Contact no.\n");

while((fscanf(fp,"%[^\n]\n%[^\n]\n%[^\n]\n",s.name,s.address,s.phone))!=EOF)

{

if(strcmp(s.name,x)==0)

{

printf("%-15s %-20s %s\n",s.name,s.address,s.phone);

}

}

fclose(fp);

}

void displayall()

{

FILE \*fp;

fp=fopen("record.txt","r");

struct record s;

printf("Name Address Contact no.\n");

while((fscanf(fp,"%[^\n]\n%[^\n]\n%[^\n]\n",s.name,s.address,s.phone))!=EOF)

{

printf("%-15s %-20s %s\n",s.name,s.address,s.phone);

}

fclose(fp);

}

int main()

{

int option;

char c;

do

{

printf("Enter choice\n1.Append\n2.Modify\n3.Display a record\n4.Display all records\n");

scanf("%d",&option);

switch(option)

{

case 1:

append();

break;

case 2:

modify();

break;

case 3:

display();

break;

case 4:

displayall();

break;

default:

printf("Invalid choice\n");

}

printf("Want to continue?(y/n): ");

scanf(" %c",&c);

}while(c=='y');

return 0;

}

**Output:**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment7$ gcc a7.2.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment7$ ./a.out

Enter choice

1.Append

2.Modify

3.Display a record

4.Display all records

1

Enter name, address and phone no.

kshitij

t.nagar

9884920419

Want to continue?(y/n): y

Enter choice

1.Append

2.Modify

3.Display a record

4.Display all records

1

Enter name, address and phone no.

sacheth

ashok nagar

3322114455

Want to continue?(y/n): y

Enter choice

1.Append

2.Modify

3.Display a record

4.Display all records

2

Enter name: kshitij

Enter new address and number

anna nagar

1122334455

Record modified

Want to continue?(y/n): y

Enter choice

1.Append

2.Modify

3.Display a record

4.Display all records

3

Enter name: sacheth

Name Address Contact no.

sacheth ashok nagar 3322114455

Want to continue?(y/n): y

Enter choice

1.Append

2.Modify

3.Display a record

4.Display all records

4

Name Address Contact no.

kshitij anna nagar 1122334455

sacheth ashok nagar 3322114455

Want to continue?(y/n): n

**3)Program name: to modify program 2 by using fread and fwrite.**

#include<stdio.h>

#include<string.h>

struct record

{

char name[50], address[50], phone[20];

};

void append()

{

FILE \*fp;

struct record s;

fp=fopen("record2.dat","ab+");

printf("Enter name, address and phone no.\n");

scanf(" %[^\n] %[^\n] %[^\n]",s.name,s.address,s.phone);

fwrite(&s,1,sizeof(struct record),fp);

fclose(fp);

}

void insert()

{

FILE \*fp1,\*fp2;

struct record s1,s2;

int pos,c=0;

printf("Enter position to insert: ");

scanf("%d",&pos);

fp1=fopen("record2.dat","rb+");

fp2=fopen("temp.dat","wb+");

printf("Enter name, address and phone no.\n");

scanf(" %[^\n] %[^\n] %[^\n]",s2.name,s2.address,s2.phone);

while(fread(&s1,1,sizeof(struct record),fp1))

{

c++;

if(c!=pos)

fwrite(&s1,1, sizeof(struct record), fp2);

else

{

fwrite(&s2,1, sizeof(struct record), fp2);

fwrite(&s1,1, sizeof(struct record), fp2);

}

}

if(pos>c)

fwrite(&s2, 1, sizeof(struct record), fp2);

fclose(fp1);

fclose(fp2);

remove("record2.dat");

rename("temp.dat","record2.dat");

}

void deletion()

{

struct record s;

char x[50];

FILE \*fp1,\*fp2;

fp1=fopen("record2.dat","rb");

fp2=fopen("temp.dat","wb");

printf("Enter name for deletion: ");

scanf("%s",x);

while(fread(&s,1,sizeof(struct record),fp1))

{

if(strcmp(s.name,x)!=0)

fwrite(&s,1,sizeof(struct record),fp2);

}

fclose(fp1);

fclose(fp2);

remove("record2.dat");

rename("temp.dat","record2.dat");

printf("Record modified\n");

}

void display()

{

FILE \*fp;

int c=0;

fp=fopen("record2.dat","rb");

int pos;

struct record s;

printf("Enter position: ");

scanf("%d",&pos);

printf("Name Address Contact no.\n");

while(fread(&s,1,sizeof(struct record),fp))

{

c++;

if(c==pos)

printf("%-15s %-20s %s\n",s.name,s.address,s.phone);

}

fclose(fp);

}

void displayall()

{

FILE \*fp;

fp=fopen("record2.dat","rb+");

struct record s;

printf("Name Address Contact no.\n");

while(fread(&s,1,sizeof(struct record),fp))

{

printf("%-15s %-20s %s\n",s.name,s.address,s.phone);

}

fclose(fp);

}

int main()

{

int option;

char c;

do

{

printf("Enter choice\n1.Append\n2.Insert\n3.Delete\n4.Display a record\n5.Display all records\n");

scanf("%d",&option);

switch(option)

{

case 1:

append();

break;

case 2:

insert();

break;

case 3:

deletion();

break;

case 4:

display();

break;

case 5:

displayall();

break;

default:

printf("Invalid choice\n");

}

printf("Want to continue?(y/n): ");

scanf(" %c",&c);

}while(c=='y');

return 0;

}

**Output:**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment7$ gcc a7.3.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment7$ ./a.out

Enter choice

1.Append

2.Insert

3.Delete

4.Display a record

5.Display all records

1

Enter name, address and phone no.

kshitij

t.nagar

1122334455

Want to continue?(y/n): y

Enter choice

1.Append

2.Insert

3.Delete

4.Display a record

5.Display all records

1

Enter name, address and phone no.

sacheth

anna nagar

2233445566

Want to continue?(y/n): y

Enter choice

1.Append

2.Insert

3.Delete

4.Display a record

5.Display all records

2

Enter position to insert: 2

Enter name, address and phone no.

charu

ashok nagar

3344556677

Want to continue?(y/n): y

Enter choice

1.Append

2.Insert

3.Delete

4.Display a record

5.Display all records

3

Enter name for deletion: sacheth

Record modified

Want to continue?(y/n): y

Enter choice

1.Append

2.Insert

3.Delete

4.Display a record

5.Display all records

4

Enter position: 1

Name Address Contact no.

kshitij t.nagar 1122334455

Want to continue?(y/n): y

Enter choice

1.Append

2.Insert

3.Delete

4.Display a record

5.Display all records

5

Name Address Contact no.

kshitij t.nagar 1122334455

charu ashok nagar 3344556677

Want to continue?(y/n):n