

# IIES Indian Institute of Embedded Systems

A  
PROJECT REPORT ON  
**“CONTACT MANAGEMENT”**

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## INTRODUCTION:

- The program defines a structure called 'contact', which represents contact information, including phone number, name, address, and email.
- It uses file handling to store and retrieve contact information. Contacts are stored in a file called "contact.dll."
- The program represents a menu with options for adding, listing, searching, editing, and deleting contacts.
- You can add new contacts by entering their name, phone number, address, and email.
- You can list all contacts, grouped by the first letter of their names.
- You can search for a contact by entering a name, and the program will display matching results.
- You can edit a contact's information by providing the name of the contact to be deleted.
- The program uses a loop to return to the main menu until you choose to exit.
- The program also uses system-specific functions like 'system("cls")' to clear the screen and 'getch()' for reading a character from console.

## CODE:

```
#include<stdio.h>

#include<conio.h>

#include<string.h>

struct contact

{

long long ph;

char name[20],add[20],email[30];

}list;

char query[20],name[20];

FILE *fp, *ft;

int i,n,ch,l,found;

int main()

{

main:

system("cls"); /* *****Main menu ***** */

printf("\n\t **** Welcome to a0 contact Manager ****");

printf("\n\n\n\t\tMAIN MENU\n\t\t===== \n\t\t[1] Add a new
Contact\n\t\t[2] Listall Contacts\n\t\t[3] Search for contact\n\t\t[4] Edita Contact\n\t\t[5] Delete a
Contact\n\t\t[0]Exit\n\t\t===== \n\t\t");

printf("Enter the choice:");

scanf("%d",&ch);

switch(ch)

{

case 0:

printf("\n\n\t\tAre you sure u want to exit?");

break;

/* *****add new contacts***** */
```

```

case 1:
system("cls");
fp=fopen("contact.lld","a");
for (;;)
{ fflush(stdin);
printf("To exit enter blank space in the name input\nName (Use identical):");
scanf("%[^\\n]",&list.name);
if(stricmp(list.name,"")==0 || stricmp(list.name," ")==0)
break;
fflush(stdin);
printf("Phone:");
scanf("%lld",&list.ph);
fflush(stdin);
printf("address:");
scanf("%[^\\n]",&list.add);
fflush(stdin);
printf("email address:");
fgets(list.email,30,stdin);
printf("\\n");
fwrite(&list,sizeof(list),1,fp);
}
fclose(fp);
break;

/* *****list of contacts***** */

case 2:
system("cls");

printf("\\n\\t\\t=====\\n\\t\\tLIST
OFCONTACTS\\n\\t\\t=====\\n\\nName\\t\\tPhone No\\t

```

```

Address\t\tE   mailad.\n=====
=====\\n\\n");

for(i=97;i<=122;i=i+1)
{
fp=fopen("contact.lld","r");
fflush(stdin);
found=0;
while(fread(&list,sizeof(list),1,fp)==1)
{
if(list.name[0]==i || list.name[0]==i-32)
{
printf("\\nName\\t: %s\\nPhone\\t: %lld\\nAddress\\t: %s\\nEmail\\t:
%s\\n",list.name,list.ph,list.add,list.email);
found++;
}
}
if(found!=0)
{
printf("=====
[%c]-(%d)\\n\\n",i-32,found);
getch();
}
fclose(fp);
}
break;

/* *****search contacts***** */

case 3:
system("cls");

```

```

do
{
found=0;

printf("\n\n\t...:CONTACT SEARCH\n\t===== \n\t...:Name of
contact to search: ");

fflush(stdin);

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

l=strlen(query);

fp=fopen("contact.lld", "r");

system("cls");

printf("\n\n\t...:Search result for
'%s'\n===== \n", query);

while(fread(&list, sizeof(list), 1, fp) == 1)
{
for(i=0; i<=l; i++)
name[i]=list.name[i];
name[l]='\0';

if(stricmp(name, query) == 0)
{
printf("\n\t...:Name\t: %s\n\t...:Phone\t:
%lld\n\t...:Address\t: %s\n\t...:Email\t: %s\n", list.name, list.ph, list.add, list.email);

found++;

if (found%4 == 0)
{
printf("\t...:Press any key to continue...");

getch();
}
}
}

```

```

}
if(found==0)
printf("\n...:No match found!");
else
printf("\n...:%d match(s) found!",found);
fclose(fp);
printf("\n ...:Try again?\n\n\t[1] Yes\t\t[0] No\n\t");
scanf("%d",&ch);
}while(ch==1);
break;

/* *****edit contacts***** */

case 4:
system("cls");
fp=fopen("contact.lld","r");
ft=fopen("temp.data","w");
fflush(stdin);

printf("...:Edit contact\n===== \n\n\t...:Enter the name of
contact to edit:");

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

while(fread(&list,sizeof(list),1,fp)==1)
{
if(stricmp(name,list.name)!=0)
fwrite(&list,sizeof(list),1,ft);
}

fflush(stdin);

printf("\n\n...:Editing '%s'\n\n",name);
printf("...:Name(Use identical):");
scanf("%[^\n",&list.name);

```

```

fflush(stdin);

printf("...:Phone:");

scanf("%lld",&list.ph);

fflush(stdin);

printf("...:address:");

scanf("%[^\\n",&list.add);

fflush(stdin);

printf("...:email address:");

fgets(list.email,30,stdin);

printf("\\n");

fwrite(&list,sizeof(list),1,ft);

fclose(fp);

fclose(ft);

remove("contact.dll");

rename("temp.dat","contact.dll");

break;

/* *****delete contacts***** */

case 5:

system("cls");

fflush(stdin);

printf("\\n\\n\\t...:DELETE A CONTACT\\n\\t=====\\n\\t...:Enter the
name of contact to delete:");

scanf("%[^\\n",&name);

fp=fopen("contact.lld","r");

ft=fopen("temp.data","w");

while(fread(&list,sizeof(list),1,fp)!=0)

if (strcmp(name,list.name)!=0)

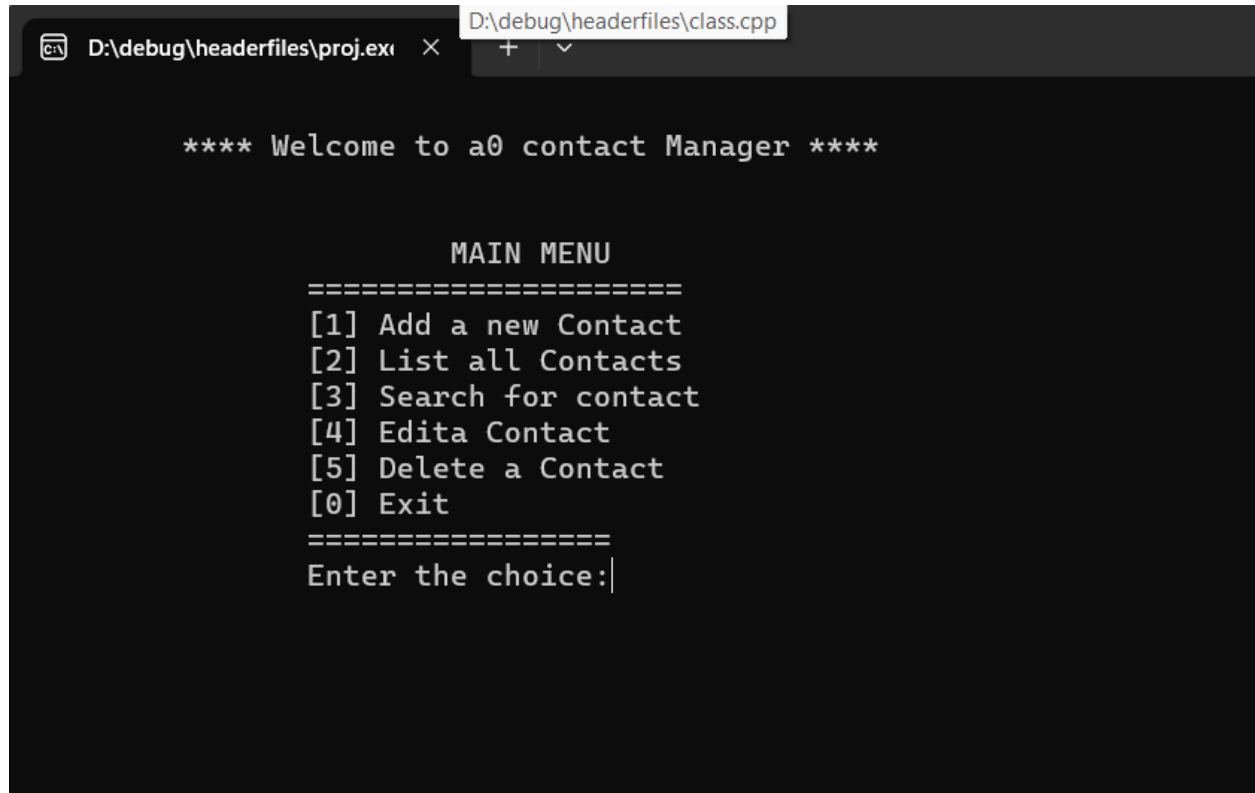
fwrite(&list,sizeof(list),1,ft);

```



```
fclose(fp);
fclose(ft);
remove("contact.lld");
rename("temp.data", "contact.lld");
break;
default:
printf("Invalid choice");
break;
}
printf("\n\nn...:Enter the Choice:\n\n\t[1] Main Menu\t\t[0] Exit\n");
scanf("%d",&ch);
switch (ch)
{
case 1:
goto main;
case 0:
break;
default:
printf("Invalid choice");
break;
}
return 0;
}
```

## OUTPUT:



The screenshot shows a C++ IDE with two tabs: 'D:\debug\headerfiles\proj.exe' and 'D:\debug\headerfiles\class.cpp'. The output window displays the following text:

```
**** Welcome to a0 contact Manager ****

MAIN MENU
=====
[1] Add a new Contact
[2] List all Contacts
[3] Search for contact
[4] Edita Contact
[5] Delete a Contact
[0] Exit
=====
Enter the choice:
```

```
D:\debug\headerfiles\proj.exe × + ∨  
To exit enter blank space in the name input  
Name (Use identical):Dhoni  
Phone:7777777777  
address:Ranchi  
email address:msd7@gmail.com  
  
To exit enter blank space in the name input  
Name (Use identical):virat  
Phone:1818181818  
address:Delhi  
email address:vk18@gmail.com  
  
To exit enter blank space in the name input  
Name (Use identical):rohit  
Phone:4545454545  
address:Mumbai  
email address:rs45@gmail.com  
  
To exit enter blank space in the name input  
Name (Use identical):  
  
...:Enter the Choice:  
[1] Main Menu [0] Exit  
|
```

```
D:\debug\headerfiles\project. X + v

...:Search result for 'virat'
=====

...:Name      : virat
...:Phone     : 1818181818
...:Address   : Delhi
...:Email     : vk18@gmail.com

...:1 match(s) found!
...:Try again?

    [1] Yes      [0] No
    |
```

```
D:\debug\headerfiles\project. X + v
...:Edit contact
=====

...:Enter the name of contact to edit:virat

...:Editing 'virat'

...:Name(Use identical):virat kholi
...:Phone:1818181818
...:address:Delhi, India
...:email address:vk18@gmail.com

...:Enter the Choice:

[1] Main Menu [0] Exit
```