Phonebook Management System

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Introduction:

This programme uses files as database to perform file handling operations such as add, search, modify and delete records to manage records of a phonebook.

Here, a menu window is provided to the user with different functions to be performed such as-

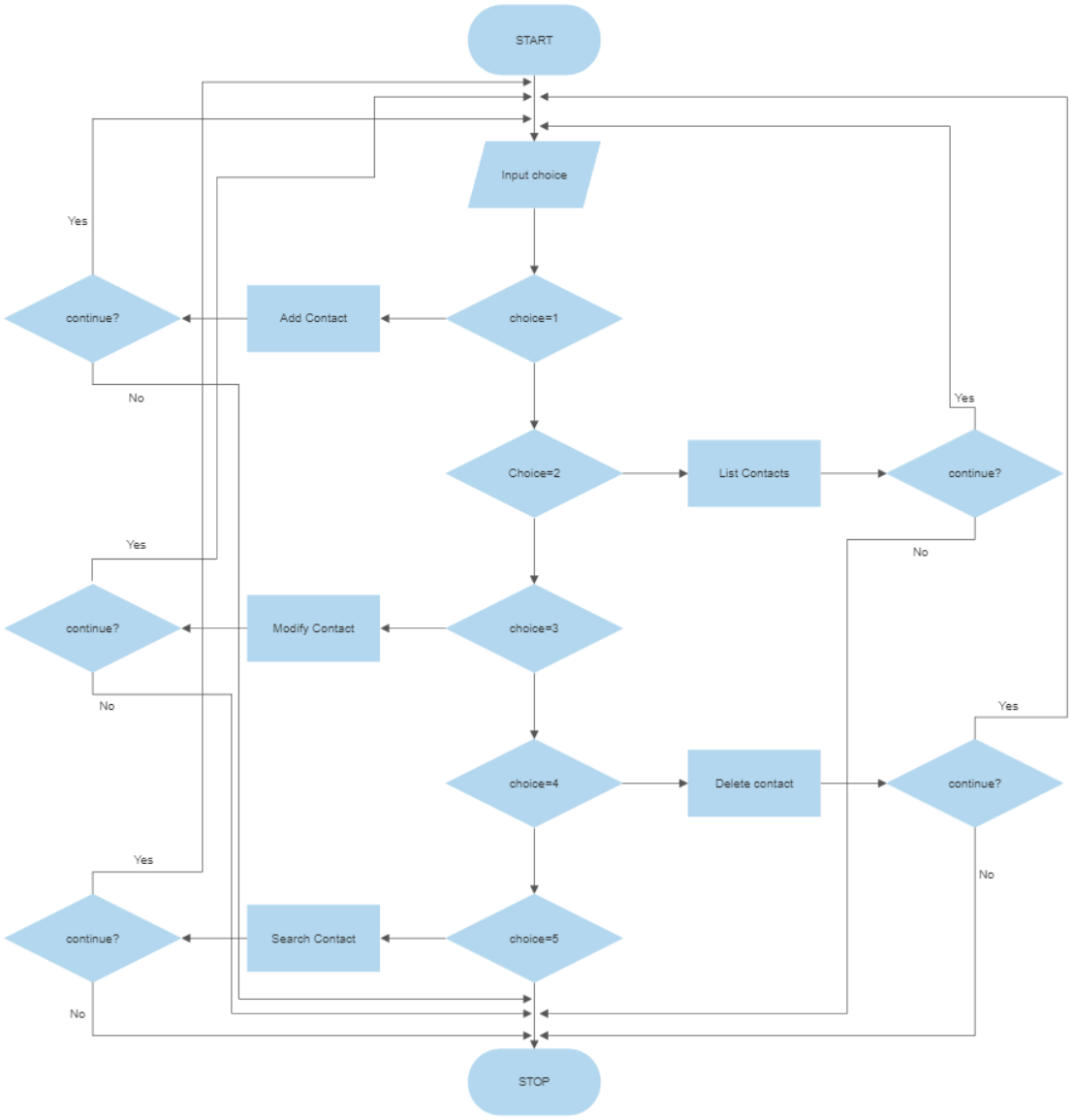
1. Adding new number to the phonebook.
2. Listing out contacts of the phonebook.
3. Modifying an existing contact.
4. Searching a contact in the phonebook.
5. Deleting a contact from the phonebook.

Features of Phonebook Management System in C:

Simple functions have been added to the code to manipulate data using structures and file handling, Functionalities of this system are,

1. Adding new number to the phonebook.
2. Listing out contacts of the phonebook.
3. Modifying an existing contact.
4. Searching a contact in the phonebook.
5. Deleting a contact from the phonebook.

Flowchart :


START
Input choice
choice=1
Add Contact
continue?
Yes
No
Choice=2
List Contacts
continue?
Yes
No
choice=3
Modify Contact
continue?
Yes
No
choice=4
Delete contact
continue?
Yes
No
choice=5
Search Contact
continue?
Yes
No
STOP

Algorithm:-

1. Input choice from the user.
2. if choice=1:

    Add record to phonebook

    Ask to continue

        if user wants to continue:

            Back to 1

        else

            End program
3. if choice=2:

    list records of the phonebook

    Ask to continue

        if user wants to continue:

            Back to 1

        else

            End program
4. if choice=3:

    Modify a record of phonebook

    Ask to continue

        if user wants to continue:

Back to 1

else:

End program

5. if choice=4:

Delete record from phonebook

Ask to continue

if user wants to continue:

Back to 1

else

End program

6. if choice=5:

Search record in phonebook

Ask to continue

if user wants to continue:

Back to 1

else

End program

7. End Program.

Code:

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<stdlib.h>
#include<windows.h>
struct person
{
    char name[35];
    char address[50];
    char father_name[35];
    char mother_name[30];
    long int mble_no;
    char sex[8];
    char mail[100];
    char citision_no[20];

    };
void menu();
void got();
void start();
void back();
```

```
void addrecord();
void listrecord();
void modifyrecord();
void deleterecord();
void searchrecord();
int main()
{
   start();
   return 0;
}
void back()
{
   start();
}
void start()
{
   menu();
}
void menu()
{
   system("cls");
```

```
printf("\t\t**********WELCOME TO
PHONEBOOK**********");


printf("\n\n\t\t\t  MENU\t\t\n\n");
printf("\t1.Add New   \t2.List   \t3.Exit
\n\t4.Modify \t5.Search\t6.Delete\n");


switch(getch())
{
   case '1':
       addrecord();
       break;
  case '2': listrecord();
   break;
   case '3': exit(0);
   break;
   case '4': modifyrecord();
   break;
   case '5': searchrecord();
   break;
   case '6': deleterecord();
   break;
```

```
    default:
                system("cls");
                printf("\nEnter 1 to 6 only");
                printf("\nEnter any key to continue");
                getch();

menu();
}
}
void addrecord()
{
        system("cls");
        FILE *f;
        struct person p;
        printf("\t*****Adding New Record to the
Phonebook*****\n");
        f=fopen("project","ab+");
        printf("\n-----------------------------------
");
        printf("\nEnter name: ");
        got(p.name);
        printf("\nEnter the address: ");
```

```
        got(p.address);
        printf("\nEnter father's name: ");
        got(p.father_name);
        printf("\nEnter mother's name: ");
        got(p.mother_name);
        printf("\nEnter phone no.:");
        scanf("%ld",&p.mble_no);
        printf("Enter sex:");
        got(p.sex);
        printf("\nEnter e-mail:");
        got(p.mail);
        printf("\nEnter citizen no:");
        got(p.citision_no);
        fwrite(&p,sizeof(p),1,f);
        printf("\n-----------------------------------
");
     fflush(stdin);
        printf("\nRecord Saved Successfully!");
        printf("\n-----------------------------------
");

fclose(f);
```

```
    printf("\nEnter any key to continue");

      getch();
    system("cls");
    menu();
}
void listrecord()
{
    system("cls");
    printf("\t*****List of Records in the
Phonebook*****\n");
    printf("\n-------------------------------------");
    struct person p;
    FILE *f;
    f=fopen("project","rb");
    if(f==NULL)
    {
        printf("\nfile opening error in listing :");
        exit(1);
    }
    while(fread(&p,sizeof(p),1,f)==1)
```

```
    {
        printf("\nYOUR RECORD IS");
        printf("\nName=%s\nAdress=%s\nFather
name=%s\nMother name=%s\nMobile
no=%ld\nSex=%s\nE-mail=%s\nCitizen
no=%s",p.name,p.address,p.father_name,p.mot
her_name,p.mble_no,p.sex,p.mail,p.citision_no);
        getch();
        //system("cls");
    }
    fclose(f);
    printf("\n-----------------------------------");
    printf("\nEnter any key to continue");
    getch();
    system("cls");
    menu();
}
void searchrecord()
{
    system("cls");
    printf("\t*****Searching a Record in the
Phonebook*****\n");
    struct person p;
```

```
    FILE *f;
    char name[100];
    f=fopen("project","rb");
    if(f==NULL)
    {
        printf("\n error in opening\a\a\a\a");
        exit(1);
    }
    printf("\nEnter name of person to search\n");
    got(name);
    printf("\n-----------------------------------
\n");
    while(fread(&p,sizeof(p),1,f)==1)
    {
        if(strcmp(p.name,name)==0)
        {
            printf("\n\tDetail Information About
%s",name);

printf("\n\nName:%s\naddress:%s\nFather
name:%s\nMother name:%s\nMobile
no:%ld\nsex:%s\nE-mail:%s\nCitizen
no:%s",p.name,p.address,p.father_name,p.moth
er_name,p.mble_no,p.sex,p.mail,p.citision_no);
```

```
            printf("\n--------------------------------
---");
        }
        else
        {
            printf("\nContact not found\n");
            printf("\n--------------------------------
---");
        }
    }
    fclose(f);
    printf("\nEnter any key to continue");
    getch();
    system("cls");
    menu();
}
void deleterecord()
{
    system("cls");
    printf("\t*****Deleting a Record from the the
Phonebook*****\n");
    struct person p;
    FILE *f,*ft;
```

```
    int flag;
    char name[100];
    f=fopen("project","rb");
    if(f==NULL)
        {

            printf("CONTACT'S DATA NOT ADDED
YET.");

        }
    else
    {
        ft=fopen("temp","wb+");
        if(ft==NULL)

         printf("file opening error");
        else

      {

       printf("\n-----------------------------------
\n");
```

```
        printf("ENTER CONTACT'S NAME:");
        got(name);

        fflush(stdin);
        while(fread(&p,sizeof(p),1,f)==1)
        {
            if(strcmp(p.name,name)!=0)
                fwrite(&p,sizeof(p),1,ft);
            if(strcmp(p.name,name)==0)
            flag=1;
        }
    fclose(f);
    fclose(ft);
    if(flag!=1)
    {
        printf("\nNO CONACT'S RECORD TO
DELETE.");
        remove("temp.txt");
    }
        else
        {
            remove("project");
```

```
                rename("temp.txt","project");
                printf("\nRECORD DELETED
SUCCESSFULLY.");
           printf("\n--------------------------------
---");
          }
     }
}
 printf("\nEnter any key to continue");

       getch();
    system("cls");
menu();
}

void modifyrecord()
{
    system("cls");
    printf("\t*****Modifying a Record in the
Phonebook*****\n");
    int c;
    FILE *f;
    int flag=0;
```

```
    struct person p,s;
      char  name[50];
      f=fopen("project","rb+");
      if(f==NULL)
           {

                printf("CONTACT'S DATA NOT ADDED
YET.");
                exit(1);



           }
      else
      {
          system("cls");
           printf("\nEnter CONTACT'S NAME TO
MODIFY:\n");
           got(name);
           while(fread(&p,sizeof(p),1,f)==1)
           {
               if(strcmp(name,p.name)==0)
               {
```

```
printf("\n Enter name:");
got(s.name);
printf("\nEnter the address:");
got(s.address);
printf("\nEnter father's name:");
got(s.father_name);
printf("\nEnter mother's name:");
got(s.mother_name);
printf("\nEnter phone no:");
scanf("%ld",&s.mble_no);
printf("\nEnter sex:");
got(s.sex);
printf("\nEnter e-mail:");
got(s.mail);
printf("\nEnter citizen no\n");
got(s.citision_no);
fseek(f,-sizeof(p),SEEK_CUR);
fwrite(&s,sizeof(p),1,f);
flag=1;
```

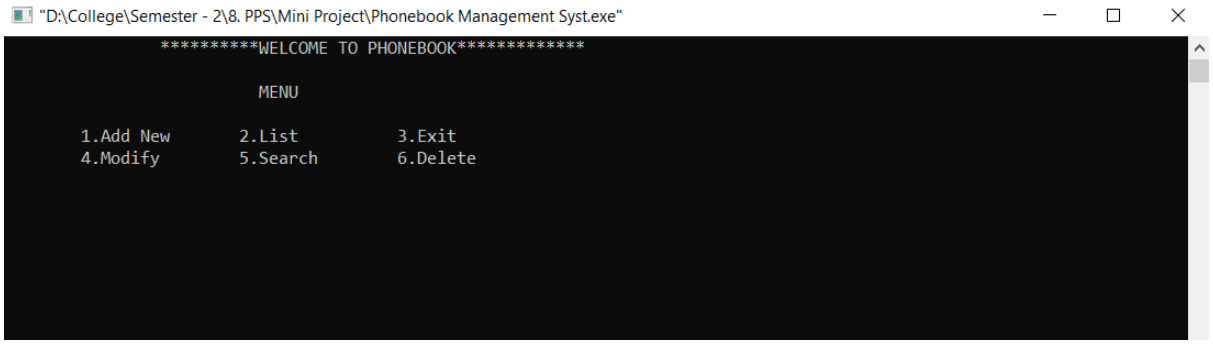
```
            break;



        }
        fflush(stdin);


    }
    if(flag==1)
    {
        printf("\n your data id modified");

    }
    else
    {
            printf(" \n data is not found");

    }
    fclose(f);
}
 printf("\n Enter any key to continue");
```

```
      getch();
    system("cls");
     menu();

}
void got(char *name)
{

   int i=0,j;
    char c,ch;
    do
    {
        c=getch();
                if(c!=8&&c!=13)
                {
                    *(name+i)=c;
                        putch(c);
                        i++;
                }
                if(c==8)
                {
                    if(i>0)
```

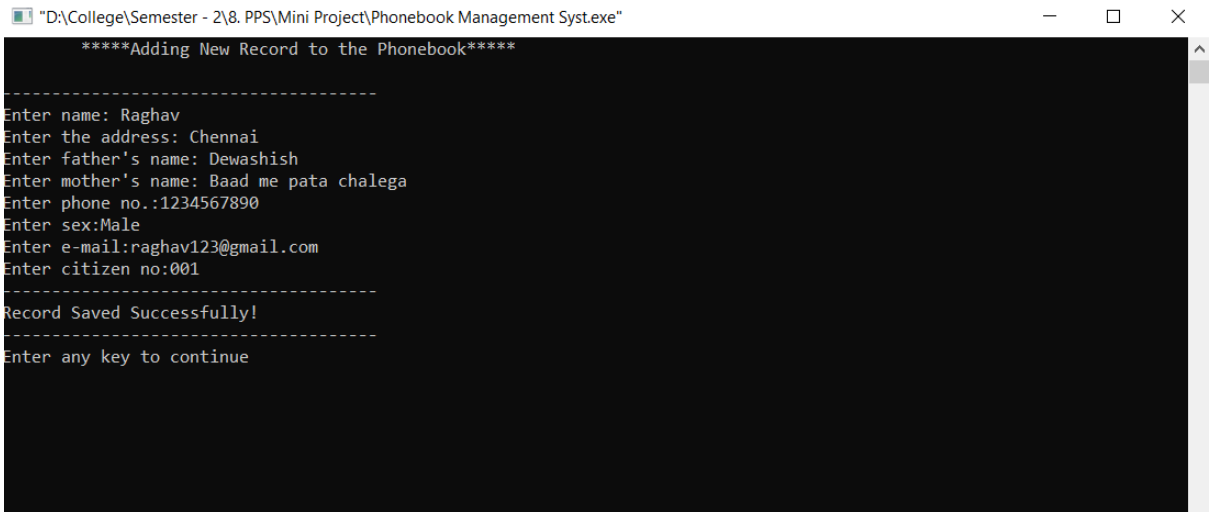
```
                {
                   i--;
                }
                system("cls");
                for(j=0;j<i;j++)
                {
                   ch=*(name+j);
                   putch(ch);

                }

             }
   }while(c!=13);
     *(name+i)='\0';
}
```

Output Screen:

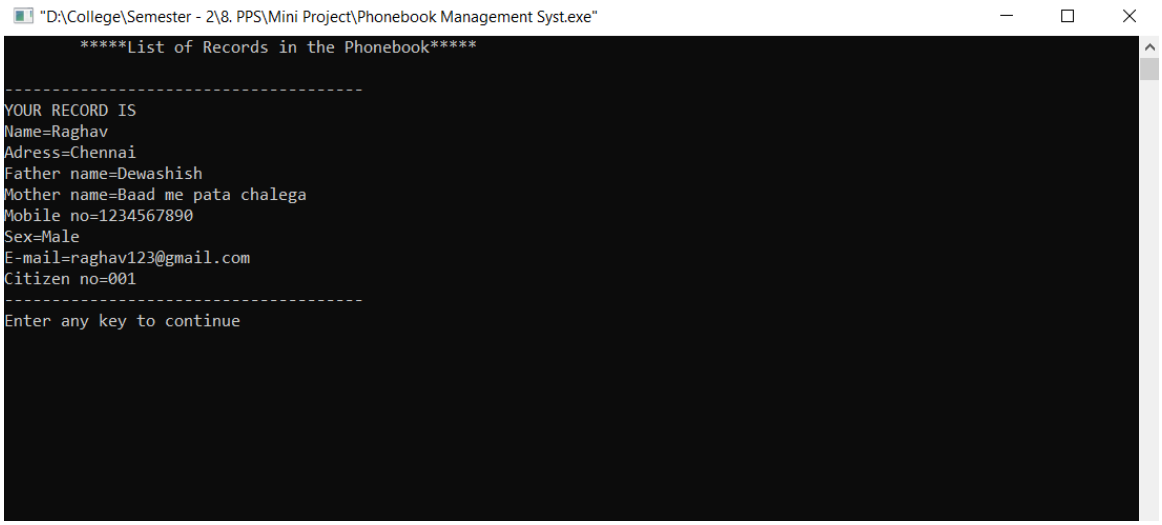
First Screen -



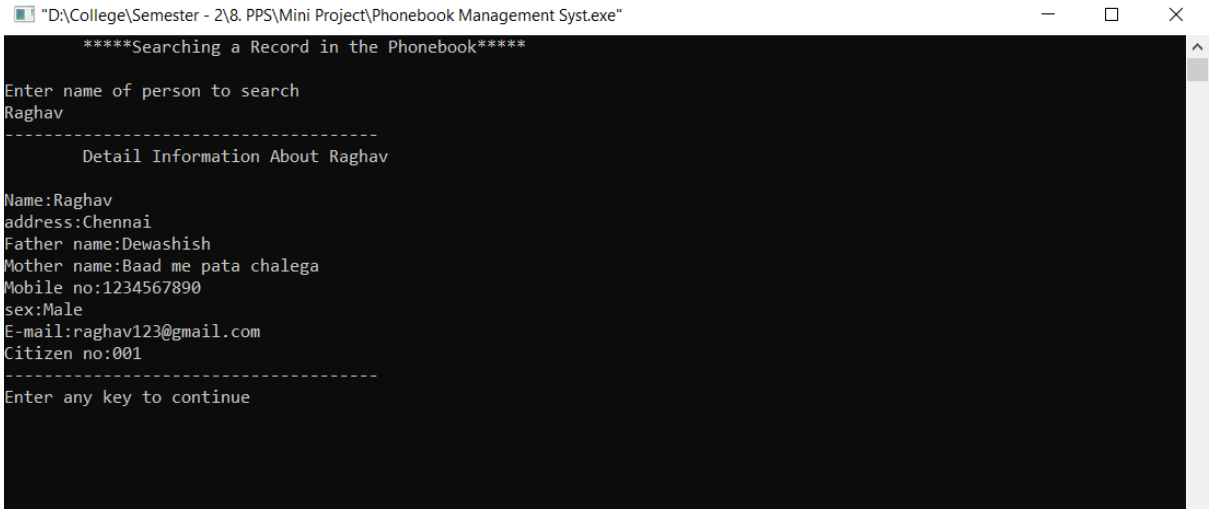
Adding record to the phonebook -

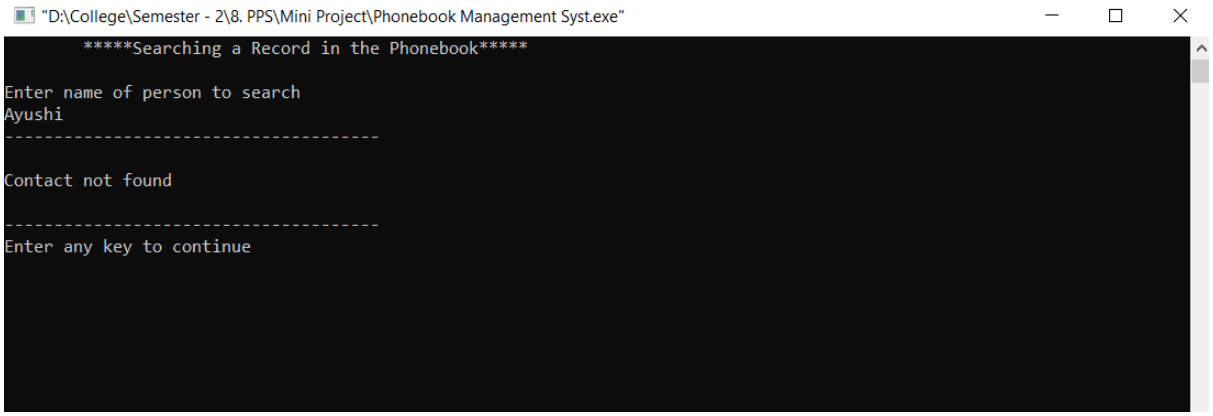


Displaying all the records in the phonebook -

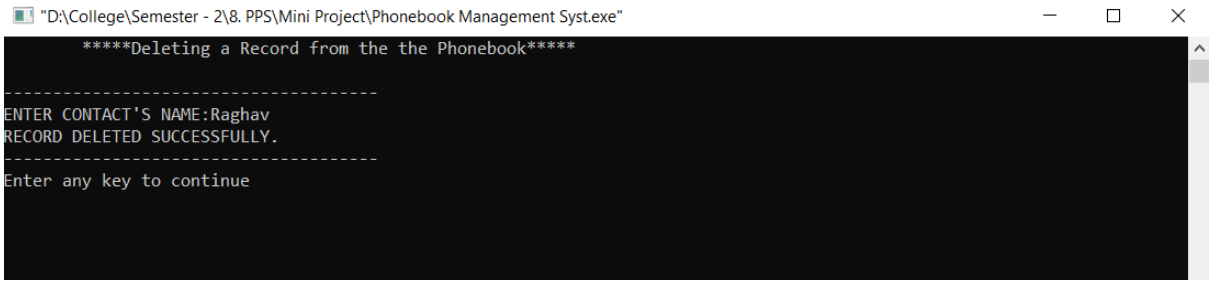


Searching a Record in the phonebook –





Deleting a record from the phonebook –



THANK YOU!