#include <stdio.h>

#include <stdlib.h>

#include <string.h>

int max\_num;

int a=0;

int b,c,d,e,f,g,h,x;

struct STRUCTURENAME

{

char \*name;

char \*phone\_number;

char \*birth\_date;

};

struct STRUCTURENAME \*\*STRUCTUREVARNAME;

void registration()

{

if(a<100 && a < max\_num)

{

printf("Name:");

scanf("%s", STRUCTUREVARNAME[a]->name);

printf("Phone\_number:");

scanf("%s", STRUCTUREVARNAME[a]->phone\_number);

printf("Birth:");

scanf("%s", STRUCTUREVARNAME[a]->birth\_date);

a++;

printf("<<%d>>\n", a);

struct STRUCTURENAME \*temp;

for(b=0;b<a-1;b++)

{

for(c=b+1;c<a;c++)

{

d = strcmp(STRUCTUREVARNAME[b]->name,STRUCTUREVARNAME[c]->name);

if(d>0)

{

temp = STRUCTUREVARNAME[b];

STRUCTUREVARNAME[b] = STRUCTUREVARNAME[c];

STRUCTUREVARNAME[c] = temp;

}

}

}

}

else if (a == max\_num || a== 100)

{

printf("OVERFLOW\n");

}

}

void move\_to\_file()

{

FILE \*fp;

fp = fopen("PHONE\_BOOK.txt", "w");

for(int b=0; b<a; b++)

{

fprintf(fp,"%s", STRUCTUREVARNAME[b]->name);

fprintf(fp," %s",STRUCTUREVARNAME[b]->phone\_number);

fprintf(fp," %s\n",STRUCTUREVARNAME[b]->birth\_date);

}

fclose(fp);

}

void show\_all()

{

if(a>0)

{

for(c=0;c<a;c++)

{

printf("%s %s %s\n", STRUCTUREVARNAME[c]->name, STRUCTUREVARNAME[c]->phone\_number,STRUCTUREVARNAME[c]->birth\_date);

}

}

}

void delete\_function()

{

char search\_by\_name[100];

char nullStr[2] = {"\0"};

if(a==0)

{

printf("NO MEMBER\n");

}

else if(a != 0)

{

printf("Name:");

scanf("%s", &search\_by\_name);

for(b=0;b<a;b++)

{

e = strcmp(search\_by\_name,STRUCTUREVARNAME[b]->name);

if(e==0)

{

strcpy(STRUCTUREVARNAME[b]->name,nullStr);

strcpy(STRUCTUREVARNAME[b]->phone\_number,nullStr);

strcpy(STRUCTUREVARNAME[b]->birth\_date,nullStr);

free(STRUCTUREVARNAME[a]);

a--;

for(f=b;f<a;f++)

{

STRUCTUREVARNAME[b] = STRUCTUREVARNAME[b+1];

b++;

}

}

}

}

}

void find\_by\_birth()

{

char find\_by\_birth[100];

char find\_by\_birth\_2[100];

char very\_temp[2] = "0";

printf("Birth:");

scanf("%s", &find\_by\_birth);

if(strlen(find\_by\_birth)<2)

{

char allo[2] = "0";

strcat(allo, find\_by\_birth);

strcpy(find\_by\_birth,allo);

}

for(b=0;b<a;b++)

{

strcpy(find\_by\_birth\_2,STRUCTUREVARNAME[b]->birth\_date);

find\_by\_birth\_2[6] = '\0';

sprintf(very\_temp,"%\*s",1,find\_by\_birth\_2 + 4);

h = strcmp(find\_by\_birth,very\_temp);

if(h == 0)

{

printf("%s %s %s\n", STRUCTUREVARNAME[b]->name,STRUCTUREVARNAME[b]->phone\_number,STRUCTUREVARNAME[b]->birth\_date);

}

}

}

void reg\_from\_file()

{

FILE \*fp;

int count = a+1;

char arr[32], arr\_1[32], arr\_2[32];

fp = fopen("PHONE\_BOOK.txt", "r");

while (!feof(fp))

{

fscanf(fp,"%s", &arr);

fscanf(fp,"%s", &arr\_1);

fscanf(fp,"%s", &arr\_2);

strcpy(STRUCTUREVARNAME[count]->name, arr);

strcpy(STRUCTUREVARNAME[count]->phone\_number, arr\_1);

strcpy(STRUCTUREVARNAME[count]->birth\_date, arr\_2);

count++;

}

a=count;

fclose(fp);

}

int main()

{

printf("Max\_num:");

scanf("%d",&max\_num);

STRUCTUREVARNAME = (struct STRUCTURENAME\*\*)malloc(max\_num\*sizeof(struct STRUCTURENAME\*));

FILE \*fp;

fp = fopen("PHONE\_BOOK.txt", "w");

if(fp == NULL)

{

printf("Could not open file");

return -1;

}

fclose(fp);

for(b=0; b<max\_num; b++)

{

STRUCTUREVARNAME[b] = (struct STRUCTURENAME\*)malloc(sizeof(struct STRUCTURENAME));

STRUCTUREVARNAME[b]->name =(char\*)malloc(101\*sizeof(char));

STRUCTUREVARNAME[b]->phone\_number =(char\*)malloc(101\*sizeof(char));

STRUCTUREVARNAME[b]->birth\_date =(char\*)malloc(101\*sizeof(char));

}

if(STRUCTUREVARNAME == NULL)

{

printf("Not enough space");

return -1;

}

while(1)

{

printf("\*\*\*\*\*Menu\*\*\*\*\*\n");

printf("<1.Registration><2.ShowAll><3.Delete><4.FindByBirth><5.RegFromFile><6.Exit>\n");

printf("Enter\_the\_menu\_number:");

int function\_chosen;

scanf("%d", &function\_chosen);

switch(function\_chosen)

{

case 1: {registration();break;}

case 2: {show\_all();break;}

case 3: {delete\_function();break;}

case 4: {find\_by\_birth();break;}

case 5: {reg\_from\_file();break;}

case 6: {move\_to\_file();return 0; break;}

}

}

}