#include<stdio.h>

#include<conio.h>

#include<string.h>

#include<stdlib.h>

struct element{

char name[20];

char sb[5];

int atm;

float atms;

char block;

char atc[20];

char prop[250];

}p,q;

int rw,cl;

FILE\*fp;

void add();

void explor();

void print();

void mainscreen();

void main()

{

int a,i,n,y;

char c,d;

char date1[15],date2[15],string1[20];

unsigned int tsz;

clrscr();

mainscreen();

label1:

gotoxy(22,15);textcolor(21);

cprintf("Enter the corresponding no");gotoxy(22,19);textcolor(10);

cprintf("1.Add new Element Information");gotoxy(22,21);

cprintf("2.Explore");gotoxy(22,23);

cprintf("3.Quit");gotoxy(22,25);

// cprintf("4.Delete the records");gotoxy(22,27);

// cprintf("5.Exit from the program");gotoxy(25,30);

fflush(stdin);

d=getch();

switch(d)

{

case '1':

{

add();

// getch();

// print();

// getch();

break;

}

case '2':

{

explor();

break;

}

case '3':

{

clrscr();

mainscreen();

textcolor(14); gotoxy(30,24);

cprintf("THANK U");gotoxy(30,26);

// cprintf("SAVING UR SETTINGS"); gotoxy(30,28);

cprintf("BYE...........");

getch();

exit(1);

break;

}

default:

{

clrscr();

mainscreen();

textcolor(12+128);gotoxy(22,11);

cprintf("Wrong choice");gotoxy(22,13);textcolor(15);

cprintf("Retype choice");

goto label1;

}

}

clrscr();

mainscreen();

goto label1;

}

void mainscreen()

{

gotoxy(30,4);textcolor(3);

cprintf("Modern Periodic Table");

gotoxy(37,6);textcolor(6);

cprintf("Digital");

gotoxy(35,7); textcolor(15);

cprintf("-----------");

}

void add()

{

char ch;

label1:

clrscr();

mainscreen();

gotoxy(15,14);textcolor(10);

cprintf("Enter the Information of Elements:");

// printf(" %d",l);

gotoxy(15,16);

cprintf("Name:");

gotoxy(15,18);

cprintf("Symbol:");

gotoxy(15,20);

cprintf("Atomic No: ");

gotoxy(15,22);

cprintf("Atomic Wt: ");

gotoxy(15,24);

cprintf("Atomic Config:");

gotoxy(15,26);

cprintf("Block:");

gotoxy(15,28);

cprintf("Properties:");

textcolor(15);

fflush(stdin);

gotoxy(20,16);

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

p.name[0]=toupper(p.name[0]);

fflush(stdin);

gotoxy(23,18);

scanf("%[^\n]",p.sb);

p.sb[0]=toupper(p.sb[0]);

fflush(stdin);

gotoxy(25,20);

scanf("%d",&p.atm);

fflush(stdin);

gotoxy(25,22);

scanf("%f",&p.atms);

fflush(stdin);

gotoxy(29,24);

scanf("%[^\n]",p.atc);

fflush(stdin);

gotoxy(21,26);

scanf("%c",&p.block);

p.block=toupper(p.block);

if(p.block!='S'&&p.block!='P'&&p.block!='D'&&p.block!='F')

p.block=' ';

fflush(stdin);

gotoxy(26,28);

scanf("%[^\n]",p.prop);

p.prop[0]=toupper(p.prop[0]);

// ccccccccccccccccc

/\* gotoxy(9,30);

cprintf("(In Short)");

gotoxy(5,33);

cprintf("Reff. Specialist no:"); \*/

if((fp=fopen("data","ab+"))==NULL)

{

printf("Cannot open the file f1");

getch();

exit(1);

}

fwrite(&p,sizeof(p),1,fp);

fclose(fp);

printf("\n\n\n\t\tEnter 'y' for next record(y/n):");

ch=getch();

if(ch=='y')

{

goto label1;

}

// getch();

}

void explor()

{

char d,c;

FILE \*f;

int given\_atmic\_no,a,i,tsz,n;

float given\_atmic\_mass;

int flag;

char string[20];

startofexplore:

clrscr();

mainscreen();

label6:

gotoxy(22,12);textcolor(12);

cprintf("Enter the corresponding no");gotoxy(22,14);textcolor(3);

cprintf("1.Search by 'NAME'");gotoxy(22,16);

cprintf("2.Search by SYMBOL");gotoxy(22,18);

cprintf("3.Search by ATOMIC NUMBER");gotoxy(22,20);

cprintf("4.Search by ATOMIC WEIGHT");gotoxy(22,22);

cprintf("5 Elements of Diff. Blocks");gotoxy(22,24);

cprintf("6.Return to main menu");

gotoxy(25,32);

fflush(stdin);

d=getch();

switch(d)

{

case '1':

{

clrscr();

mainscreen();

gotoxy(15,25);

textcolor(12);

cprintf("Enter the Name of Element:");

textcolor(3+124);

fflush(stdin);

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

printf("%s",string);

string[0]=toupper(string[0]);

if((fp=fopen("data","rb+"))==NULL)

{

clrscr();

printf("\n cannot open the record file 1");

getch();

exit(1);

}

flag=1;

while(fread(&p,sizeof(p),1,fp))

{

if(strcmp(p.name,string)==0)

{

print();

flag=0;

break;

}

}

if(flag==1)

{

clrscr();

mainscreen();

gotoxy(25,25);

textcolor(12);

cprintf("::No Element Available::");

}

fclose(fp);

getch();

break;

}

case '2':

{

clrscr();

mainscreen();

gotoxy(22,15);

textcolor(12);

cprintf("Enter the symbol:");

textcolor(3);

fflush(stdin);

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

printf("%s",string);

string[0]=toupper(string[0]);

if((fp=fopen("data","rb+"))==NULL)

{

clrscr();

printf("\n cannot open the record file 1");

getch();

exit(1);

}

flag=1;

while(fread(&p,sizeof(p),1,fp))

{

if(strcmp(p.sb,string)==0)

{

print();

flag=0;

break;

}

}

if(flag==1)

{

clrscr();

mainscreen();

gotoxy(25,25);

textcolor(12);

cprintf("::No Element Available::");

}

fclose(fp);

getch();

break;

}

case '6':

{

return;

}

case '3':

{

clrscr();

mainscreen();

gotoxy(15,25);

textcolor(12);

cprintf("Enter the Atomic No. Element:");

textcolor(3);

fflush(stdin);

scanf("%d",&given\_atmic\_no);

if((fp=fopen("data","rb+"))==NULL)

{

clrscr();

printf("\n cannot open the record file 1");

getch();

exit(1);

}

flag=1;

while(fread(&p,sizeof(p),1,fp))

{

if(p.atm==given\_atmic\_no)

{

print();

flag=0;

break;

}

}

if(flag==1)

{

clrscr();

mainscreen();

gotoxy(25,25);

textcolor(12);

cprintf("::No Element Available::");

}

fclose(fp);

getch();

break;

}

case '4':

{

clrscr();

mainscreen();

gotoxy(15,22);

textcolor(12);

cprintf("Enter the Atomic mass of Element:");

textcolor(3);

fflush(stdin);

scanf("%f",&given\_atmic\_mass);

if((fp=fopen("data","rb+"))==NULL)

{

clrscr();

printf("\n cannot open the record file 1");

getch();

exit(1);

}

flag=1;

while(fread(&p,sizeof(p),1,fp))

{

if(p.atms==given\_atmic\_mass)

{

print();

flag=0;

break;

}

}

if(flag==1)

{

clrscr();

mainscreen();

gotoxy(25,25);

textcolor(12);

cprintf("::No Element Available::");

}

fclose(fp);

getch();

break;

}

case '5':

{

clrscr();

mainscreen();

gotoxy(15,25);

textcolor(12);

cprintf("Enter the Block:");

textcolor(3);

fflush(stdin);

scanf("%c",&c);

c=toupper(c);

if((f=fopen("temp","wb+"))==NULL)

{

clrscr();

printf("\n cannot open the temp file 1");

getch();

exit(1);

}

if((fp=fopen("data","rb+"))==NULL)

{

clrscr();

printf("\n cannot open the record file 1");

getch();

exit(1);

}

flag=1;

while(fread(&p,sizeof(p),1,fp))

{

if(p.block==c)

{

fwrite(&p,sizeof(p),1,f);

}

}

fclose(f);

fclose(fp);

if((f=fopen("temp","rb+"))==NULL)

{

printf("Cannot open the file");

getch();

exit(1);

}

fseek(f,0,SEEK\_END);

tsz=ftell(f);

n=(int)(tsz/sizeof(p));

for(i=0;i<(n-1);i++)

{

for(a=i+1;a<n;a++)

{

fseek(f,i\*sizeof(p),SEEK\_SET);

fread(&p,sizeof(p),1,f);

fseek(f,a\*sizeof(p),SEEK\_SET);

fread(&q,sizeof(p),1,f);

if((p.atm-q.atm)>0)

{

fseek(f,i\*sizeof(p),SEEK\_SET);

fwrite(&q,sizeof(p),1,f);

fseek(f,a\*sizeof(p),SEEK\_SET); fflush(stdin);

fwrite(&p,sizeof(p),1,fp);

}

}

}

rewind(f);

while(fread(&p,sizeof(p),1,f))

{

print();

getch();

}

clrscr();

mainscreen();

gotoxy(25,25);

textcolor(12);

cprintf("::No Element Available::");

fclose(f);

getch();

break;

}

default:

{

clrscr();

mainscreen();

textcolor(12+128);gotoxy(22,11);

cprintf("Wrong choice");gotoxy(22,13);textcolor(15);

cprintf("Retype choice");

goto label6;

}

}

goto startofexplore;

}

void print()

{

clrscr();

mainscreen();

gotoxy(15,16);

cprintf("Name:");

gotoxy(15,18);

cprintf("Symbol:");

gotoxy(15,20);

cprintf("Atomic No: ");

gotoxy(15,22);

cprintf("Atomic Wt: ");

gotoxy(15,24);

cprintf("Atomic Config:");

fflush(stdin);

gotoxy(15,26);

cprintf("Block:");

gotoxy(15,28);

cprintf("Properties:");

textcolor(6);

gotoxy(20,16);

cprintf("%s",p.name);

gotoxy(23,18);

cprintf("%s",p.sb);

fflush(stdin);

gotoxy(25,20);

cprintf("%d",p.atm);

fflush(stdin);

gotoxy(25,22);

cprintf("%f",p.atms);

fflush(stdin);

gotoxy(29,24);

cprintf("%s",p.atc);

gotoxy(21,26);

cprintf("%c",p.block);

gotoxy(26,28);

cprintf("%s",p.prop);

}

**Output:**





