**INRODUCTION**

C++ is a statically typed, compiled, general purpose, case-sensitive, free-form programming language that supports procedural, object-oriented, and generic programming.C++ is regarded as a **middle-level** language, as it comprises a combination of both high-level and low-level language features. C++ was developed by Bjarne Stroustrup starting in 1979 at Bell Labs in Murray Hill, New Jersey as an enhancement to the C language and originally named C with Classes but later it was renamed C++ in 1983.C++ is a superset of C, and that virtually any legal C program is a legal C++ program.The most important thing to do when learning C++ is to focus on concepts and not get lost in language technical details.

C++ is used by hundreds of thousands of programmers in essentially every application domain.C++ is being highly used to write device drivers and other software that rely on direct manipulation of hardware under realtime constraints.C++ is widely used for teaching and research because it is clean enough for successful teaching of basic concepts.Anyone who has used either an Apple Macintosh or a PC running Windows has indirectly used C++ because the primary user interfaces of these systems are written in C++.

Our project **ELECTION-VOTING SOFTWARE**  is made out of turbo C++ language. It is a high level programming language and its most important feature is the OOP concept.

This software is developed in the programming langue C++ available in the syllabus of CBSE XII for the academic year 2012-2013.

**ABOUT THE PROGRAMMING LANGUAGE**

An object-oriented program may be viewed as a collection of interacting objects, as opposed to the conventional model, in which a program is seen as a list of tasks to perform. In OOP, each object is capable of receiving messages, processing data, and sending messages to other objects. Each object can be viewed as an independent machine with a distinct role or responsibility. The actions on these objects are closely associated with the object.

Simple, non-OOP programs may be one "long" list of statements .More complex programs will often group smaller sections of these statements into [functions](http://en.wikipedia.org/wiki/Function_(programming)) or [subroutines](http://en.wikipedia.org/wiki/Subroutine) each of which might perform a particular task. With designs of this sort, it is common for some of the program's data to be 'global', i.e. accessible from any part of the program. As programs grow in size, allowing any function to modify any piece of data, means that bugs can have wide-reaching effects.

In contrast, the object-oriented approach encourages the programmer to place data where it is not directly accessible by the rest of the program. Instead, the data is accessed by calling specially written functions, commonly called [methods](http://en.wikipedia.org/wiki/Method_(computer_science)), which are either bundled in with the data or inherited from "class objects." These act as the intermediaries for retrieving or modifying the data they control. The programming construct that combines data with a set of methods for accessing and managing those data is called an object. The practice of using subroutines to examine or modify certain kinds of data was also used in non-OOP [modular programming](http://en.wikipedia.org/wiki/Modular_programming), well before the widespread use of object-oriented programming.

An object-oriented program will usually contain different types of objects, each type corresponding to a particular kind of complex data to be managed or perhaps to a real-world object or concept such as a bank account, a hockey player, or a bulldozer. A program might well contain multiple copies of each type of object, one for each of the real-world objects the program is dealing with. For instance, there could be one bank account object for each real-world account at a particular bank. Each copy of the bank account object would be alike in the methods it offers for manipulating or reading its data., but the data inside each object would differ reflecting the different history of each account.

Objects can be thought of as wrapping their data within a set of functions designed to ensure that the data are used appropriately, and to assist in that use. The object's methods will typically include checks and safeguards that are specific to the types of data the object contains. An object can also offer simple-to-use, standardized methods for performing particular operations on its data, while concealing the specifics of how those tasks are accomplished. In this way alterations can be made to the internal structure or methods of an object without requiring that the rest of the program be modified. This approach can also be used to offer standardized methods across different types of objects. As an example, several different types of objects might offer print methods. Each type of object might implement that print method in a different way, reflecting the different kinds of data each contains, but all the different print methods might be called in the same standardized manner from elsewhere in the program. These features become especially useful when more than one programmer is contributing code to a project or when the goal is to reuse code between projects.

Object-oriented programming has roots that can be traced to the 1960s. As hardware and software became increasingly complex, manageability often became a concern. Researchers studied ways to maintain software quality and developed object-oriented programming in part to address common problems by strongly emphasizing discrete, reusable units of programming logic. The technology focuses on data rather than processes, with programs composed of self-sufficient modules, each instance of which contains all the information needed to manipulate its own data structure. This is in contrast to the existing [modular programming](http://en.wikipedia.org/wiki/Modular_programming) that had been dominant for many years that focused on the function of a module, rather than specifically the data, but equally provided for [code reuse](http://en.wikipedia.org/wiki/Code_reuse), and self-sufficient reusable units of programming logic, enabling [collaboration](http://en.wikipedia.org/wiki/Collaboration) through the use of linked modules .

**OOP Languages**

Used for simulating system behavior in the late 1960s, SIMULA was the first object-oriented language. In the 1970s, Xerox's Smalltalk was the first object-oriented programming language and was used to create the graphical user interface (GUI). Today, C++ and Java are the major OOP languages, while C#, Visual Basic.NET, Python and JavaScript are also popular. ACTOR and Eiffel were earlier OOP languages. The following list compares some basic OOP terms with traditional programming

**Data Hiding:**

This concept is the main heart of an Object oriented programming. The data is hidden inside the class by declaring it as private inside the class. When data or functions are defined as private it can be accessed only by the class in which it is defined. When data or functions are defined as public then it can be accessed anywhere outside the class. Object Oriented programming gives importance to protecting data which in any system. This is done by declaring data as private and making it accessible only to the class in which it is defined. This concept is called data hiding. But one can keep member functions as public

**Encapsulation**

Encapsulation refers to the creation of self-contained modules that bind processing functions to the data. These user-defined data types are called "classes," and one instance of a class is an "object." For example, in a payroll system, a class could be Manager, and Pat and Jan could be two instances (two objects) of the Manager class. Encapsulation ensures good code modularity, which keeps routines separate and less prone to conflict with each other.

**Inheritance** Passes "Knowledge" Down

Classes are created in hierarchies, and inheritance allows the structure and methods in one class to be passed down the hierarchy. That means less programming is required when adding functions to complex systems. If a step is added at the bottom of a hierarchy, then only the processing and data associated with that unique step needs to be added. Everything else about that step is inherited. The ability to reuse existing objects is considered a major advantage of object technology.

**Polymorphism** Takes any Shape

Object-oriented programming allows procedures about objects to be created whose exact type is not known until runtime. For example, a screen cursor may change its shape from an arrow to a line depending on the program mode. The routine to move the cursor on screen in response to mouse movement would be written for "cursor," and polymorphism allows that cursor to take on whatever shape is required at runtime. It also allows new shapes to be easily integrated.

**WORKING OF THE PROGRAM**

Programming languages are having wide application now a day. Many programming languages are now available and each one has its own advantages and uses. Our project **‘ELECTION-VOTING SOFTWARE** **’** is made out of turbo C++ language it is a high level programming language and its most important feature is the OOP concept.

The project deals with the reservation of tickets in the railway station by which a lot of time and effort can be saved. We can check the details of the reserved tickets in different classes by knowing their correct id and password. Many turbo cpp features are used in this software i.e., <iostream.h>, <conio.h>, <stdio.h>, <stdlib.h>, <string.h>, <fstream.h>, <dos.h> , <ctype.h> and <process.h> are used in the software. Classes and objects are also used in this software.

**SOURCE CODE**

#include<iostream.h>

#include<fstream.h>

#include<process.h>

#include<string.h>

#include<stdlib.h>

#include<stdio.h>

#include<ctype.h>

#include<conio.h>

#include<dos.h>

char description()

{ delay(2000);

cout<<"\t\t ELECTION VOTING SOFTWARE \n\n";

delay(500);

cout<<"\t DESCRIPTION : IN THIS PROJECT , A PREDETERMINED SET OF \n\n\n";

delay(500);

cout<<"\t VOTERS WILL BE ABLE TO CAST THE VOTE .VOTERS WILL HAVE \n\n\n";

delay(500);

cout<<"\t TO PROVE THEIR IDENTITY BY GIVING THEIR IDENTIFICATION \n\n\n";

delay(500);

cout<<"\t NO. A AUTHENTICATED USER WILL BE ABLE TO CAST THE VOTE.\n\n\n";

delay(500);

cout<<"\t A USER WHO HAS CASTED THE VOTE CANNOT CAST AGAIN.AFTER \n\n\n";

delay(500);

cout<<"\t VOTING HAS FINISHED RESUTS WILL BE DECLAIR. A SETUP \n\n\n";

delay(500);

cout<<"\t OPTION BEFORE ELECTION STARTS , WILL ALLOW VOTER TO BE \n\n\n";

delay(500);

cout<<"\t CREATED AND CANDIDATE CHOOSEN. \n\n\n";

delay(1500);

cout<<"\n\n\n\t\t\tPLEASE PRESS ENTER TO CONTINUE & Esc. TO EXIT\t";

char ch;

for(;;)

{

ch=getch();

if(ch==13)

break;

else

if(ch==27)

exit(-1);

else

cout<<"\n\n\t\t\t\a ! WRONG KEY ENTERED !";

delay(300);

cout<<"\n\n\n\n\t\t\t PRESS ENTER ";

}

return 0;

}

int pass()

{

char ch;

int r=0;

char pass[20];

for(;;)

{

clrscr();

gotoxy(16,20);

cout<<"Enter the password to initialize the setup :";

r=0;

for(int i=0;;i++)

{

ch=getch();

if(ch==13)

{ pass[r]='\0';

break;

}

if(ch==8)

{

if(i>0)

{ cout<<ch<<" "<<ch;

i-=2;r--;

}

else

i--;

}

else

{ cout<<"\*";

pass[r]=ch;

r++;

}

}

if(strcmp("omkar",pass)==0)

return 0;

else

{

cout<<"\n\n\t\t\a!! INVALID PASSWORD !!";

delay(300);

cout<<"\n\n\t\t--> TRY AGAIN";

getch();

}

}

}

int string\_is\_number(char\* s)

{

int size = strlen(s);

for(int i = 0; i < size; i++)

if (!(s[i] >= '0' && s[i] <= '9'))

return 0;

return 1;

}

class voter\_status

{

public:

int voter\_namecode;

int voting\_status;

};

class candidate\_record:public voter\_status

{

public:

int candidate\_namecode ;

char candidate\_name[50] ;

char partyname[50], partysign[50] ;

char summary[1];

char revenue[100];

char age[100];

char area[50];

};

class voter\_record

{

public:

int voter\_namecode ;

char voter\_name[50] ;

char age[10], gender[10] ;

};

class candidate\_status

{

public:

int candidate\_namecode;

int numVotes;

};

class vote

{

public :

void add\_candidate\_name(void) ;

void delete\_candidate\_name(void) ;

void modify\_candidate\_name(void) ;

void list\_of\_candidate\_names(void) ;

void voting(void) ;

void add\_voter\_name(void) ;

void delete\_voter\_name(void) ;

void modify\_voter\_name(void) ;

void list\_of\_voters\_names(void) ;

private :

int last\_candidate\_code(int &num\_candidates) ;

void delete\_candidate\_record(int) ;

void modify\_candidate\_record(int) ;

void display\_candidate\_record(int) ;

int name\_candidate\_found(int) ;

int candidate\_recordno(int, candidate\_record&) ;

void candidate\_sort(void) ;

int last\_voter\_code(int &num\_voters) ;

void delete\_voter\_record(int) ;

void modify\_voter\_record(int) ;

void display\_voter\_record(int) ;

int name\_voter\_found(int) ;

int voter\_recordno(int, voter\_record &vr) ;

void voter\_sort(void) ;

voter\_status\* init\_voter\_status(int &num);

candidate\_status\* init\_candidate\_status(int &num);

} ;

class menu

{

public :

void main\_menu(void) ;

private :

void edit\_menu(void) ;

vote v;

} ;

void menu :: main\_menu(void)

{

clrscr() ;

char ch ;

while (1)

{

clrscr();

gotoxy(27,4) ;

cout<<" E L E C T I O N ";

gotoxy(27,6);

cout <<" V O T I N G S O F T W A R E " ;

gotoxy(31,8) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~" ;

gotoxy(32,9) ;

cout <<"1: VOTE " ;

gotoxy(32,11) ;

cout <<"2: SEE MENU " ;

gotoxy(32,13) ;

cout <<"3: EDIT " ;

gotoxy(32,17) ;

cout <<"0: QUIT " ;

gotoxy(32,20) ;

cout <<"Enter Choice : " ;

ch = getche() ;

if (ch == 27)

return ;

else

if (ch == '1')

{

vote v ;

v.voting() ;

}

else

if (ch == '2')

{

vote v ;

v.list\_of\_candidate\_names() ;

gotoxy(1,20) ;

cout <<"Press any key to see the voters details" ;

getche() ;

v.list\_of\_voters\_names();

}

else

if (ch == '3')

edit\_menu() ;

else

if (ch == '0')

break ;

}

}

void menu :: edit\_menu(void)

{

clrscr();

char ch,choice;

cout<<" \EDIT \MENU \n\n";

cout<<" 1: \\* EDIT CANDIDATE RECORD \\*\n";

cout<<" 2: \\* EDIT VOTER RECORD \\*\n";

cout<<" 0: \\* EXIT \\*\n";

cout<<" \ENTER \CHOICE: ";

choice = getche();

if (choice == '1')

{

while(1)

{

gotoxy(28,10) ;

cout <<" \* EDIT CANDIDATE RECORD \*" ;

gotoxy(28,12) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

gotoxy(28,14) ;

cout <<"1: \* \ADD \CANDIDATE \NAME \* " ;

gotoxy(28,16) ;

cout <<"2: \* \MODIFY \CANDIDATE \NAME \*" ;

gotoxy(28,18) ;

cout <<"3: \* \DELETE \CANDIDATE \NAME \*" ;

gotoxy(28,20) ;

cout <<"0: \* \EXIT \*" ;

gotoxy(28,22) ;

cout <<" ENTER CHOICE: " ;

ch = getche() ;

if (ch == '1')

{

vote v ;

v.add\_candidate\_name() ;

break ;

}

else if (ch == '2')

{

vote v ;

v.modify\_candidate\_name() ;

break ;

}

else if (ch == '3')

{

vote v ;

v.delete\_candidate\_name() ;

break ;

}

else

if (ch == '0')

break ;

}

}

if(choice=='2')

{

while (1)

{

gotoxy(28,10) ;

cout <<" \* EDIT VOTER RECORD \*" ;

gotoxy(28,12) ;

cout <<" ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

gotoxy(28,14) ;

cout <<"1: \* \ADD \VOTER \NAME \* " ;

gotoxy(28,16) ;

cout <<"2: \* \MODIFY \VOTER \NAME \* " ;

gotoxy(28,18) ;

cout <<"3: \* \DELETE \VOTER \NAME \* " ;

gotoxy(28,20) ;

cout <<"0: \* EXIT " ;

gotoxy(28,22) ;

cout <<"Enter Choice: " ;

ch = getche() ;

if (ch == '1')

{

vote v ;

v.add\_voter\_name() ;

break ;

}

else if (ch == '2')

{

vote v ;

v.modify\_voter\_name() ;

break ;

}

else if (ch == '3')

{

vote v ;

v.delete\_voter\_name() ;

break ;

}

else if (ch == '0')

break ;

}

}

}

int vote :: last\_voter\_code(int &num\_voters)

{

voter\_record vr;

fstream file ;

num\_voters = 0;

file.open("VOTER.DAT", ios::in|ios::binary) ;

file.seekg(0,ios::beg) ;

int t=0 ;

while (file.read((char \*)&vr,sizeof(voter\_record)))

{

t = vr.voter\_namecode ;

num\_voters++;

}

file.close() ;

return t ;

}

void vote :: list\_of\_voters\_names(void)

{

clrscr() ;

voter\_record vr;

fstream file ;

file.open("VOTER.DAT", ios::in|ios::binary) ;

file.seekg(0) ;

int row = 6 , found = 0 , pageno = 1 ;

gotoxy(30,2) ;

cout <<"LIST OF NAMES OF VOTERS" ;

gotoxy(29,3) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

gotoxy(3,4) ;

cout <<"NAME CODE NAME AGE GENDER" ;

gotoxy(2,5) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

while (file.read((char \*)&vr, sizeof(voter\_record)))

{

delay(20) ;

found = 1 ;

gotoxy(5,row) ;

cout <<vr.voter\_namecode ;

gotoxy(14,row) ;

cout <<vr.voter\_name ;

gotoxy(37,row) ;

cout <<vr.age;

gotoxy(51,row) ;

cout <<vr.gender; ;

if ( row == 22 )

{

row = 5 ;

gotoxy(66,1) ;

cout <<"Page no. : " <<pageno ;

gotoxy(66,2) ;

cout <<"===============" ;

pageno++ ;

gotoxy(1,25) ;

cout <<"Press any key to continue..." ;

getche() ;

clrscr() ;

gotoxy(3,4) ;

cout << "NAME CODE NAME AGE GENDER " ;

gotoxy(2,5) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

}

else

row++ ;

}

if ( !found )

{

gotoxy(5,10) ;

cout <<"\7Records not found " ;

}

gotoxy(66,1) ;

cout <<"Page no. : " <<pageno ;

gotoxy(66,2) ;

cout <<"===============" ;

gotoxy(1,20) ;

cout <<"Press any key to continue..." ;

getche() ;

file.close () ;

}

void vote :: add\_voter\_name(void)

{

voter\_record vr;

int vcode, valid ;

char ch;

int num\_voters;

vcode = last\_voter\_code(num\_voters) ;

vcode++ ;

do

{

clrscr() ;

gotoxy(71,2) ;

cout <<"<0>=Exit" ;

gotoxy(23,3) ;

cout <<" ADD NAME TO THE VOTER LIST" ;

gotoxy(23,4) ;

cout <<" ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

gotoxy(5,6) ;

cout <<"Name Code : " <<vcode ;

gotoxy(5,8) ;

cout <<"Name: " ;

gotoxy(5,10) ;

cout <<"Age: " ;

gotoxy(5,12) ;

cout <<"Gender: " ;

do

{

valid = 1 ;

gotoxy(1,8) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER NAME OF THE VOTER TO ADD IN THE LIST" ;

gotoxy(5,8) ;

cout <<" Name : " ;

gets(vr.voter\_name) ;

strupr(vr.voter\_name) ;

if (vr.voter\_name[0] == '0')

return ;

if ((strlen(vr.voter\_name) < 1) || (strlen(vr.voter\_name) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = A...Z" ;

getch() ;

}

} while (!valid) ;

do

{

valid = 1 ;

gotoxy(1,10) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER AGE OF VOTER TO ADD IN THE LIST" ;

gotoxy(5,10) ;

cout <<"Age : " ;

gets(vr.age) ;

strupr(vr.age);

if (vr.age[0] == '0')

return ;

if ((strlen(vr.age) < 1) || (strlen(vr.age) > 3 ) || (!string\_is\_number(vr.age)))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 18...100" ;

getch() ;

}

if (atoi(vr.age) < 18)

{

valid = 0;

gotoxy(3,24);

cout <<"\7 Voter's age is less than 18";

getch();

}

} while (!valid) ;

do

{

valid = 1 ;

gotoxy(1,12) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER GENDER OF VOTER TO ADD IN THE MENU" ;

gotoxy(5,12) ;

cout <<"GENDER : " ;

gets(vr.gender) ;

strupr(vr.gender);

if (vr.gender[0] == '0')

return ;

if ((strlen(vr.gender) < 1) ||(strlen(vr.gender) > 1)

|| (strcmp(vr.gender,"M") && strcmp(vr.gender,"F")))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = M/F" ;

getch() ;

}

} while (!valid) ;

do

{

gotoxy(1,15) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,15) ;

cout <<"Do you want to save this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'Y')

{

vr.voter\_namecode = vcode ;

fstream file ;

file.open("VOTER.DAT", ios::out | ios::app |ios::binary) ;

file.write((char \*)&vr, sizeof(voter\_record)) ;

file.close() ;

vcode++ ;

}

do

{

gotoxy(1,17) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,17) ;

cout <<"Do you want to add more records (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

} while (ch == 'Y') ;

}

void vote :: display\_voter\_record(int vcode)

{

voter\_record vr;

fstream file ;

file.open("VOTER.DAT", ios::in|ios::binary) ;

file.seekg(0,ios::beg) ;

while (file.read((char \*)&vr, sizeof(voter\_record)))

{

if (vr.voter\_namecode == vcode)

{

gotoxy(5,3) ;

cout <<"Name Code : "<<vr.voter\_namecode ;

gotoxy(5,4) ;

cout <<"Name : "<<vr.voter\_name ;

gotoxy(5,5) ;

cout <<"Age : "<<vr.age ;

gotoxy(5,6) ;

cout <<"Gender : "<<vr.gender ;

break ;

}

}

file.close() ;

}

int vote :: name\_voter\_found(int tcode)

{

voter\_record vr;

fstream file ;

file.open("VOTER.DAT", ios::in|ios::binary) ;

file.seekg(0,ios::beg) ;

int found=0 ;

while (file.read((char \*)&vr, sizeof(voter\_record)))

{

if (vr.voter\_namecode == tcode)

{

found++ ;

break ;

}

}

file.close() ;

return found ;

}

int vote :: voter\_recordno(int tcode, voter\_record &vr)

{

voter\_record temp;

fstream file ;

file.open("VOTER.DAT", ios::in|ios::binary) ;

file.seekg(0,ios::beg) ;

int found=0 ;

while (file.read((char \*)&temp, sizeof(voter\_record)))

{

found++ ;

if (temp.voter\_namecode == tcode)

{

vr = temp;

break ;

}

}

file.close() ;

return found ;

}

void vote :: delete\_voter\_record(int tcode)

{

voter\_record vr;

fstream file ;

file.open("VOTER.DAT", ios::in|ios::binary) ;

fstream temp ;

temp.open("temp.dat", ios::out|ios::binary) ;

file.seekg(0,ios::beg) ;

while ( !file.eof() )

{

file.read((char \*)&vr, sizeof(voter\_record)) ;

if ( file.eof() )

break ;

if ( vr.voter\_namecode != tcode )

temp.write((char \*)&vr, sizeof(voter\_record)) ;

}

file.close() ;

temp.close() ;

file.open("VOTER.DAT", ios::out|ios::binary) ;

temp.open("temp.dat", ios::in|ios::binary) ;

temp.seekg(0,ios::beg) ;

while ( !temp.eof() )

{

temp.read((char \*)&vr, sizeof(voter\_record)) ;

if ( temp.eof() )

break ;

file.write((char \*)&vr, sizeof(voter\_record)) ;

}

file.close() ;

temp.close() ;

}

void vote :: delete\_voter\_name(void)

{

clrscr() ;

char t\_code[5], ch ;

int tcode ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to see the list" ;

gotoxy(5,3) ;

cout <<"Enter Name Code of the item to be deleted : " ;

gets(t\_code) ;

tcode = atoi(t\_code) ;

if (tcode == 0)

{

list\_of\_voters\_names() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to Exit" ;

gotoxy(5,24) ;

cout <<"Enter Name Code of the item to be deleted : " ;

gets(t\_code) ;

tcode = atoi(t\_code) ;

if (tcode == 0)

return ;

}

clrscr() ;

if (!name\_voter\_found(tcode))

{

gotoxy(5,5) ;

cout <<"\7Record not found" ;

getch() ;

return ;

}

display\_voter\_record(tcode) ;

do

{

gotoxy(1,8) ; clreol() ;

gotoxy(5,8) ;

cout <<"Do you want to delete this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

return ;

delete\_voter\_record(tcode) ;

gotoxy(5,15) ;

cout <<"\7Record Deleted" ;

getch() ;

}

void vote :: modify\_voter\_record(int tcode)

{

voter\_record vr;

int recno ;

recno = voter\_recordno(tcode,vr) ;

if (recno == 0)

return;

int valid, t\_code ;

char ch,t\_namecode[5] ;

gotoxy(71,2) ;

cout <<"<0>=Exit" ;

gotoxy(5,12) ;

cout <<"Name Code : " ;

gotoxy(5,14) ;

cout <<" Name : " ;

gotoxy(5,16) ;

cout <<" Age : " ;

gotoxy(5,18) ;

cout <<"Gender: " ;

do

{

gotoxy(20,12) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,12) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER NAME CODE TO ADD IN THE MENU" ;

gotoxy(5,12) ;

cout <<"Name Code : " ;

gets(t\_namecode) ;

vr.voter\_namecode = atoi(t\_namecode) ;

if (vr.voter\_namecode == 0)

return ;

if (name\_voter\_found(vr.voter\_namecode) && vr.voter\_namecode != tcode)

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 CODE ALREADY GIVEN" ;

getch() ;

}

}

do

{

gotoxy(20,14) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,14) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER NAME TO ADD IN THE MENU" ;

gotoxy(5,14) ;

cout <<" Name : " ;

gets(vr.voter\_name) ;

strupr(vr.voter\_name) ;

if (vr.voter\_name[0] == '0')

return ;

if ((strlen(vr.voter\_name) < 1) || (strlen(vr.voter\_name) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 1..50" ;

getch() ;

}

}

do

{

gotoxy(20,16) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,16) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER AGE OF VOTER TO ADD IN THE MENU" ;

gotoxy(5,16) ;

cout <<"Age : " ;

gets(vr.age) ;

strupr(vr.age);

if (vr.age[0] == '0')

return ;

if ((strlen(vr.age) < 1) || (strlen(vr.age) > 10) || !string\_is\_number(vr.age))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 1..10" ;

getch() ;

}

}

do

{

gotoxy(20,18) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,18) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER GENDER OF VOTER TO ADD IN THE MENU" ;

gotoxy(5,18) ;

cout <<"Gender : " ;

gets(vr.gender) ;

strupr(vr.gender);

if (vr.gender[0] == '0')

return ;

if ((strlen(vr.gender) < 1) || (strlen(vr.gender) > 10))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = " <<vr.gender <<"..10" ;

getch() ;

}

}

do

{

gotoxy(1,21) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,21) ;

cout <<"Do you want to save this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

return ;

getch() ;

fstream file ;

file.open("VOTER.DAT", ios::out | ios::ate|ios::binary) ;

int location ;

location = (recno-1) \* sizeof(vr) ;

cout << " Location is " << location;

file.seekp(location) ;

file.write((char \*) &vr, sizeof(voter\_record)) ;

file.close() ;

voter\_sort() ;

clrscr() ;

gotoxy(5,15) ;

cout <<"\7Record Modified" ;

getch() ;

}

void vote :: modify\_voter\_name(void)

{

clrscr() ;

char t\_code[5], ch ;

int tcode ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to see the list" ;

gotoxy(5,3) ;

cout <<"Enter Name Code of the item to be Modify : " ;

gets(t\_code) ;

tcode = atoi(t\_code) ;

if (tcode == 0)

{

list\_of\_voters\_names() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to Exit" ;

gotoxy(5,24) ;

cout <<"Enter Name Code of the item to be modify : " ;

gets(t\_code) ;

tcode = atoi(t\_code) ;

if (tcode == 0)

return ;

}

clrscr() ;

if (!name\_voter\_found(tcode))

{

gotoxy(5,5) ;

cout <<"\7Record not found" ;

getch() ;

return ;

}

display\_voter\_record(tcode) ;

do

{

gotoxy(5,8) ;

cout <<"Do you want to Modify this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

return ;

modify\_voter\_record(tcode) ;

}

void vote :: voter\_sort(void)

{

int i=0,j ;

voter\_record \*arr, temp ;

fstream file ;

file.open("VOTER.DAT", ios::in|ios::binary) ;

while (file.read((char \*) &temp, sizeof(voter\_record)))

i++ ;

file.clear();

arr = (voter\_record\*) new voter\_record[i];

int size ;

size = i ;

file.seekg(0,ios::beg) ;

for( i = 0; i < size; i++)

file.read((char\*)&(arr[i]),sizeof(voter\_record));

file.close() ;

for (i=1; i<size; i++)

{

for (j=0; j<size-i; j++)

{

if (arr[j].voter\_namecode > arr[j+1].voter\_namecode)

{

temp=arr[j];

arr[j]=arr[j+1];

arr[j+1]=temp;

}

}

}

file.open("VOTER.DAT", ios::out|ios::binary) ;

for (i=0; i<size; i++)

file.write((char \*) &arr[i], sizeof(voter\_record));

delete[] arr;

file.close() ;

}

void main(void)

{

clrscr() ;

char des;

description();

// exit();

clrscr();

char p;

pass();

clrscr();

menu m ;

m.main\_menu() ;

}

void vote :: candidate\_sort(void)

{

int i=0,j ;

candidate\_record \*arr, temp ;

fstream file ;

file.open("CANDIDATE.DAT", ios::in|ios::binary) ;

while (file.read((char \*) &temp, sizeof(candidate\_record)))

i++ ;

file.clear();

arr = (candidate\_record\*) new candidate\_record[i];

int size ;

size = i ;

file.seekg(0,ios::beg) ;

for( i = 0; i < size; i++)

file.read((char\*)&arr[i],sizeof(candidate\_record));

file.close() ;

for (i=1; i<size; i++)

{

for (j=0; j<size-i; j++)

{

if (arr[j].candidate\_namecode > arr[j+1].candidate\_namecode)

{

temp=arr[j];

arr[j]=arr[j+1];

arr[j+1]=temp;

}

}

}

file.open("CANDIDATE.DAT", ios::out|ios::binary) ;

for (i=0; i<size; i++)

file.write((char \*) &arr[i], sizeof(candidate\_record));

delete[] arr;

file.close() ;

}

void vote :: modify\_candidate\_name(void)

{

clrscr() ;

char t\_code[5], ch ;

int tcode ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to see the list" ;

gotoxy(5,3) ;

cout <<"Enter Name Code of the item to be Modify : " ;

gets(t\_code) ;

tcode = atoi(t\_code) ;

if (tcode == 0)

{

list\_of\_candidate\_names() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to Exit" ;

gotoxy(5,24) ;

cout <<"Enter Name Code of the item to be modify : " ;

gets(t\_code) ;

tcode = atoi(t\_code) ;

if (tcode == 0)

return ;

}

clrscr() ;

if (!name\_candidate\_found(tcode))

{

gotoxy(5,5) ;

cout <<"\7Record not found" ;

getch() ;

return ;

}

display\_candidate\_record(tcode) ;

do

{

gotoxy(5,8) ;

cout <<"Do you want to Modify this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

return ;

modify\_candidate\_record(tcode) ;

}

void vote :: modify\_candidate\_record(int tcode)

{

candidate\_record cr;

int recno ;

int revenue;

recno = candidate\_recordno(tcode,cr) ;

int valid, t\_code ;

char ch,t\_namecode[5] ;

gotoxy(71,2) ;

cout <<"<0>=Exit" ;

gotoxy(5,12) ;

cout <<"Name Code : " ;

gotoxy(5,14) ;

cout <<" Name : " ;

gotoxy(5,16) ;

cout <<" Party Name : " ;

gotoxy(5,18) ;

cout <<"Party Sign: " ;

gotoxy(5,20) ;

cout <<"Summary : " ;

do

{

gotoxy(20,12) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,12) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER NAME CODE TO ADD IN THE MENU" ;

gotoxy(5,12) ;

cout <<"Name Code : " ;

gets(t\_namecode) ;

cr.candidate\_namecode = atoi(t\_namecode) ;

if (cr.candidate\_namecode == 0)

return ;

if (name\_candidate\_found(cr.candidate\_namecode) && cr.candidate\_namecode != tcode)

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 CODE ALREADY GIVEN" ;

getch() ;

}

}

do

{

gotoxy(20,14) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,14) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER NAME TO ADD IN THE MENU" ;

gotoxy(5,14) ;

cout <<" Name : " ;

gets(cr.candidate\_name) ;

strupr(cr.candidate\_name) ;

if (cr.candidate\_name[0] == '0')

return ;

if ((strlen(cr.candidate\_name) < 1) || (strlen(cr.candidate\_name) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 1..50" ;

getch() ;

}

}

do

{

gotoxy(20,16) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,16) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER PARTY NAME TO ADD IN THE MENU" ;

gotoxy(5,16) ;

cout <<"Party Name : " ;

gets(cr.partyname) ;

strupr(cr.partyname);

if (cr.partyname[0] == '0')

return ;

if ((strlen(cr.partyname) < 1) || (strlen(cr.partyname) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 1..50" ;

getch() ;

}

}

do

{

gotoxy(20,18) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,18) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER PARTY SIGN TO ADD IN THE MENU" ;

gotoxy(5,18) ;

cout <<"Party Sign : " ;

gets(cr.partysign) ;

strupr(cr.partysign);

if (cr.partysign[0] == '0')

return ;

if ((strlen(cr.partysign) < 1) || (strlen(cr.partysign) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = " <<cr.partysign <<"..50" ;

getch() ;

}

}

do

{

gotoxy(20,20) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,20) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER THE SUMMARY OF THE CANDIDATE" ;

gotoxy(5,20) ;

cout <<"Summary declared: " ;

gets(cr.summary) ;

strupr(cr.summary);

if (cr.summary[0] == '0')

return ;

if ((strlen(cr.summary) < 1) || (strlen(cr.summary) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = " <<cr.summary <<"..50" ;

getch() ;

}

}

do

{

gotoxy(1,21) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,21) ;

cout <<"Do you want to save this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

return ;

getch() ;

fstream file ;

file.open("CANDIDATE.DAT", ios::out | ios::ate|ios::binary) ;

int location ;

location = (recno-1) \* sizeof(cr) ;

file.seekp(location) ;

file.write((char \*) &cr, sizeof(candidate\_record)) ;

file.close() ;

candidate\_sort() ;

clrscr() ;

gotoxy(5,15) ;

cout <<"\7Record Modified" ;

getch() ;

}

int vote :: name\_candidate\_found(int tcode)

{

candidate\_record cr;

fstream file ;

file.open("CANDIDATE.DAT", ios::in|ios::binary) ;

file.seekg(0,ios::beg) ;

int found=0 ;

while (file.read((char \*)&cr, sizeof(candidate\_record)))

{

if (cr.candidate\_namecode == tcode)

{

found++ ;

break ;

}

}

file.close() ;

return found ;

}

void vote :: display\_candidate\_record(int tcode)

{ candidate\_record cr;

fstream file ;

file.open("CANDIDATE.DAT", ios::in|ios::binary) ;

file.seekg(0,ios::beg) ;

while (file.read((char \*)&cr, sizeof(candidate\_record)))

{

if (cr.candidate\_namecode == tcode)

{

gotoxy(5,3) ;

cout <<"Name Code : "<<cr.candidate\_namecode ;

gotoxy(5,4) ;

cout <<"Name : "<<cr.candidate\_name ;

gotoxy(5,5) ;

cout <<"Party Name : "<<cr.partyname ;

gotoxy(5,6) ;

cout <<"Party Sign : "<<cr.partysign ;

gotoxy(5,7) ;

cout <<"Revenue : "<<cr.revenue ;

gotoxy(5,8) ;

cout <<"Age : "<<cr.age ;

gotoxy(5,9) ;

cout <<"Area : "<<cr.area ;

break ;

}

}

file.close() ;

}

void vote :: add\_candidate\_name(void)

{

candidate\_record cr;

int tcode, valid ;

char ch;

int num\_candidates;

tcode = last\_candidate\_code(num\_candidates) ;

tcode++ ;

do

{

clrscr() ;

gotoxy(71,2) ;

cout <<"<0>=Exit" ;

gotoxy(27,3) ;

cout <<" ADD NAME TO THE CANDIDATE LIST" ;

gotoxy(26,4) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

gotoxy(5,6) ;

cout <<"Name Code : " <<tcode ;

gotoxy(5,8) ;

cout <<"Name : " ;

gotoxy(5,10) ;

cout <<"Party Name : " ;

gotoxy(5,12) ;

cout <<"Party Sign : " ;

gotoxy(5,14) ;

cout <<"Summary : " ;

do

{

valid = 1 ;

gotoxy(1,8) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER NAME TO ADD IN THE CANDIDATE LIST" ;

gotoxy(5,8) ;

cout <<"Name : " ;

gets(cr.candidate\_name) ;

strupr(cr.candidate\_name) ;

if (cr.candidate\_name[0] == '0')

return ;

if ((strlen(cr.candidate\_name) < 1) || (strlen(cr.candidate\_name) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = A.....Z" ;

getch() ;

}

}while (!valid) ;

do

{

valid = 1 ;

gotoxy(1,10) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,25) ;

cout <<"ENTER PARTY NAME TO ADD IN THE LIST" ;

gotoxy(5,10) ;

cout <<"Party Name : " ;

gets(cr.partyname) ;

strupr(cr.partyname);

if (cr.partyname[0] == '0')

return ;

if ((strlen(cr.partyname) < 1) || (strlen(cr.partyname) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = A.....Z" ;

getch() ;

}

} while (!valid) ;

do

{

valid = 1 ;

gotoxy(1,12) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,25) ;

cout <<"ENTER PARTY SIGN TO ADD IN THE MENU" ;

gotoxy(5,12) ;

cout <<"Party Sign : " ;

gets(cr.partysign) ;

strupr(cr.partysign);

if (cr.partysign[0] == '0')

return ;

if ((strlen(cr.partysign) < 1) ||(strlen(cr.partysign) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = A.....Z" ;

getch() ;

}

} while (!valid) ;

do

{

valid = 1;

gotoxy(1,14) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,25) ;

cout <<"ENTER SUMMARY OF THE CANDIDATE" ;

gotoxy(5,14) ;

cout <<"SUMMARY AS FOLLOWS " ;

getch();

// gets(cr.summary) ;

strupr(cr.summary);

if (cr.summary[0] == '0')

return ;

if ((strlen(cr.summary) < 1) ||(strlen(cr.summary) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = A.....Z" ;

getch() ;

}

} while (!valid) ;

do

{

valid = 1;

gotoxy(1,16) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,25) ;

cout <<"ENTER REVENUE OF THE CANDIDATE" ;

gotoxy(5,16) ;

cout <<"Revenue : " ;

gets(cr.revenue) ;

strupr(cr.revenue);

if (cr.revenue[0] == '0')

return ;

if ((strlen(cr.revenue) < 1) ||(strlen(cr.revenue) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = A.....Z" ;

getch() ;

}

} while (!valid) ;

do

{

valid = 1;

gotoxy(1,18) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,25) ;

cout <<"ENTER AGE OF THE CANDIDATE" ;

gotoxy(5,18) ;

cout <<"Age : " ;

gets(cr.age) ;

strupr(cr.age);

if (cr.age[0] == '0')

return ;

if ((strlen(cr.age) < 1) ||(strlen(cr.age) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = A.....Z" ;

getch() ;

}

} while (!valid) ;

do

{

valid = 1;

gotoxy(1,20) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,25) ;

cout <<"ENTER AREA OF THE CANDIDATE" ;

gotoxy(5,20) ;

cout <<"Area : " ;

gets(cr.area) ;

strupr(cr.area);

if (cr.area[0] == '0')

return ;

if ((strlen(cr.area) < 1) ||(strlen(cr.area) > 50))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = A.....Z" ;

getch() ;

}

} while (!valid) ;

do

{

gotoxy(1,15) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,28) ;

cout <<"Do you want to save this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'Y')

{

cr.candidate\_namecode = tcode ;

fstream file ;

file.open("CANDIDATE.DAT", ios::out | ios::app | ios::binary) ;

file.write((char \*)&cr, sizeof(candidate\_record)) ;

file.close() ;

tcode++ ;

}

do

{

gotoxy(1,17) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,30) ;

cout <<"Do you want to add more records (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

} while (ch == 'Y') ;

}

void vote :: list\_of\_candidate\_names(void)

{

clrscr() ;

candidate\_record cr;

fstream file ;

file.open("CANDIDATE.DAT", ios::in|ios::binary) ;

file.seekg(0) ;

int row = 6 , found = 0 , pageno = 1 ;

gotoxy(30,2) ;

cout <<"LIST OF NAMES OF CANDIDATES" ;

gotoxy(29,3) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

gotoxy(3,4) ;

cout <<"NAME CODE NAME PARTY NAME PARTY SIGN REVENUE AGE AREA";

gotoxy(2,5) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

while (file.read((char \*)&cr, sizeof(candidate\_record)))

{

delay(20) ;

found = 1 ;

gotoxy(5,row) ;

cout <<cr.candidate\_namecode ;

gotoxy(14,row) ;

cout <<cr.candidate\_name ;

gotoxy(31,row) ;

cout <<cr.partyname ;

gotoxy(45,row) ;

cout <<cr.partysign ;

gotoxy(58,row) ;

cout <<cr.revenue ;

gotoxy(69,row) ;

cout <<cr.age ;

gotoxy(75,row) ;

cout <<cr.area ;

if ( row == 22 )

{

row = 5 ;

gotoxy(66,1) ;

cout <<"Page no. : " <<pageno ;

gotoxy(66,2) ;

cout <<"===============" ;

pageno++ ;

gotoxy(1,25) ;

cout <<"Press any key to continue..." ;

getche() ;

clrscr() ;

gotoxy(3,4) ;

cout << "NAME CODE NAME PARTY NAME PARTY SIGN REVENUE AGE AREA" ;

gotoxy(2,5) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

}

else

row++ ;

}

if ( !found )

{

gotoxy(5,10) ;

cout <<"\7Records not found " ;

}

gotoxy(66,1) ;

cout <<"Page no. : " <<pageno ;

gotoxy(66,2) ;

cout <<"===============" ;

gotoxy(1,20) ;

cout <<"Press any key to continue..." ;

getche() ;

file.close () ;

}

int vote :: last\_candidate\_code(int &num\_candidates)

{

candidate\_record cr;

fstream file ;

num\_candidates = 0;

file.open("CANDIDATE.DAT", ios::in|ios::binary) ;

file.seekg(0,ios::beg) ;

int t=0 ;

while (file.read((char \*) &cr, sizeof(candidate\_record)))

{

t = cr.candidate\_namecode ;

num\_candidates++;

}

file.close() ;

return t ;

}

int vote :: candidate\_recordno(int tcode,candidate\_record &cr)

{

candidate\_record temp;

fstream file ;

file.open("CANDIDATE.DAT", ios::in|ios::binary) ;

file.seekg(0,ios::beg) ;

int found=0 ;

while (file.read((char \*) &temp, sizeof(candidate\_record)))

{

found++ ;

if (temp.candidate\_namecode == tcode)

{

cr = temp;

break ;

}

}

file.close() ;

return found ;

}

void vote :: delete\_candidate\_record(int tcode)

{

candidate\_record cr;

fstream file ;

file.open("CANDIDATE.DAT", ios::in|ios::binary) ;

fstream temp ;

temp.open("temp.dat", ios::out|ios::binary) ;

file.seekg(0,ios::beg) ;

while ( !file.eof() )

{

file.read((char \*)&cr, sizeof(candidate\_record)) ;

if ( file.eof() )

break ;

if ( cr.candidate\_namecode != tcode )

temp.write((char \*)&cr, sizeof(candidate\_record)) ;

}

file.close() ;

temp.close() ;

file.open("CANDIDATE.DAT", ios::out|ios::binary) ;

temp.open("temp.dat", ios::in|ios::binary) ;

temp.seekg(0,ios::beg) ;

while ( !temp.eof() )

{

temp.read((char \*)&cr, sizeof(candidate\_record)) ;

if ( temp.eof() )

break ;

file.write((char \*) &cr, sizeof(candidate\_record)) ;

}

file.close() ;

temp.close() ;

}

void vote :: delete\_candidate\_name(void)

{

clrscr() ;

char t\_code[5], ch ;

int tcode ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to see the list" ;

gotoxy(5,3) ;

cout <<"Enter Name Code of the item to be deleted : " ;

gets(t\_code) ;

tcode = atoi(t\_code) ;

if (tcode == 0)

{

list\_of\_candidate\_names() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"Press 0 to EXIT" ;

gotoxy(5,24) ;

cout <<"Enter Name Code of the item to be deleted : " ;

gets(t\_code) ;

tcode = atoi(t\_code) ;

if (tcode == 0)

return ;

}

clrscr() ;

if (!name\_candidate\_found(tcode))

{

gotoxy(5,5) ;

cout <<"\7Record not found" ;

getch() ;

return ;

}

display\_candidate\_record(tcode) ;

do

{

gotoxy(1,8) ; clreol() ;

gotoxy(5,8) ;

cout <<"Do you want to delete this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

return ;

delete\_candidate\_record(tcode) ;

gotoxy(5,15) ;

cout <<"\7Record Deleted" ;

getch() ;

}

voter\_status\* vote::init\_voter\_status(int &num)

{

voter\_status \*vs = NULL;

num = 0;

last\_voter\_code(num);

if (num != 0)

{

vs = new voter\_status[num];

voter\_record vr;

fstream file ;

file.open("VOTER.DAT", ios::in|ios::binary) ;

for(int i = 0; i < num; i++)

{

file.read((char \*)&vr, sizeof(voter\_record));

vs[i].voter\_namecode = vr.voter\_namecode;

vs[i].voting\_status = 0;

}

file.close();

}

return vs;

}

candidate\_status\* vote::init\_candidate\_status(int &num)

{

candidate\_status \*cs = NULL;;

num = 0;

last\_candidate\_code(num);

if (num != 0)

{

cs = new candidate\_status[num];

candidate\_record cr;

fstream file;

file.open("CANDIDATE.DAT",ios::in|ios::binary);

for(int i = 0; i < num; i++)

{

file.read((char \*)&cr, sizeof(candidate\_record));

cs[i].candidate\_namecode = cr.candidate\_namecode;

cs[i].numVotes = 0;

}

file.close();

}

return cs;

}

void vote::voting()

{

clrscr() ;

char ch,name[50];

int n ,num\_voters = 0, num\_candidates = 0;

int vtr\_rec;

voter\_status\* vs = init\_voter\_status(num\_voters);

candidate\_status\* cs = init\_candidate\_status(num\_candidates);

int valid=0;

if (num\_voters == 0)

{

gotoxy(3,6);

cout << "There are NO VOTERS";

ch = getche();

delete[] vs;

delete[] cs;

return;

}

if (num\_candidates == 0)

{

gotoxy(3,6);

cout << "There are NO CANDIDATES";

ch = getche();

delete[] vs;

delete[] cs;

return;

}

while(1)

{

clrscr();

gotoxy(30,2);

cout <<"VOTING HAS STARTED";

gotoxy(29,3);

cout <<"~~~~~~~~~~~~~~~~~~~~~~";

{

int i;

for(i = 0; i < num\_voters; i++)

{

if (vs[i].voting\_status == 0) break;

}

if (i == num\_voters)

{

gotoxy(3,4);

cout<<"All VOTES have been casted";

getche();

break;

}

}

gotoxy(3,24) ;

clreol();

cout <<"To End the voting Enter <STOP>.\n";

gotoxy(3,25);

clreol();

cout <<"Once voting is stopped it cann't resume. You will have to start a fresh" ;

gotoxy(6,3);

clreol();

cout <<"Enter the voter code <To view listof voters press <ENTER>- ";

gets(name);

if (strcmp(name,"STOP") == 0)

{

gotoxy(6,5);

clreol();

cout <<"Do you want to STOP the voting and start counting votes (y/n) - ";

ch = getche();

ch = toupper(ch);

while(!(ch == 'Y' || ch == 'N'))

{

gotoxy(70,5);

clreol();

ch = getche();

ch = toupper(ch);

}

if (ch == 'N')

{

gotoxy(6,5);

clreol();

continue;

}

else break;

}

n = string\_is\_number(name);

gotoxy(6,5);

clreol();

if (n == 0)

{

cout << "Incorrect voter code, enter only digits, try again ";

getche();

continue;

}

n = atoi(name);

if (n == 0)

{

list\_of\_voters\_names();

continue;

}

for(vtr\_rec = 0; vtr\_rec < num\_voters; vtr\_rec++)

{

if (vs[vtr\_rec].voter\_namecode == n)

{

if (vs[vtr\_rec].voting\_status == 1)

{

cout << "Voter with voter code "<< n <<" has alread voted";

}

getche();

break;

}

}

if ( vtr\_rec == num\_voters)

{

cout << "Voter code "<< n << " not found in Voter list";

getche();

continue;

}

if (vs[vtr\_rec].voting\_status == 1)

{

cout << "Voter code "<<n<< " has already voted, can't vote again";

getche();

continue;

}

while(1)

{

clrscr();

gotoxy(3,24) ;

clreol();

cout<<"To cast invalid vote press <y>";

gotoxy(3,3);

cout <<"Voter with voter code " << vs[vtr\_rec].voter\_namecode<<" is voting";

gotoxy(3,4);

cout<<"Enter the candidate code <To view list of candidate press <ENTER>-" ;

char can\_code[50];

gets(can\_code);

if (can\_code[0] == 'Y' || can\_code[0] == 'y')

{

vs[vtr\_rec].voting\_status = 1;

clrscr();

cout<<"Voter ";

gotoxy(3,7);

display\_voter\_record(vs[vtr\_rec].voter\_namecode);

gotoxy(3,8);

cout <<"has casted a invalid vote";

getche();

break;

}

int can = string\_is\_number(can\_code);

gotoxy(3,6);

if (can == 0)

{

cout << "Incorrect candidate code, enter only digits, try again ";

getche();

continue;

}

can = atoi(can\_code);

if (can == 0)

{

list\_of\_candidate\_names();

getche();

continue;

}

int can\_rec;

for(can\_rec=0; can\_rec<num\_candidates; can\_rec++)

{

if (cs[can\_rec].candidate\_namecode == can)

break;

}

if (can\_rec == num\_candidates)

{

cout <<"Candidate code "<<can<<" not found in Candidate List";

getche();

continue;

}

cs[can\_rec].numVotes++;

vs[vtr\_rec].voting\_status = 1;

clrscr();

gotoxy(3,6);

voter\_record vr;

voter\_recordno(vs[vtr\_rec].voter\_namecode, vr) ;

cout<<"Voter " << vr.voter\_name<< " has voterd for Candidate ";

candidate\_record cr;

candidate\_recordno(cs[can\_rec].candidate\_namecode,cr);

cout << cr.candidate\_name;

gotoxy(35,20);

cout<<"VOTE CASTED";

getche();

valid=1;

break;

}

}

if (valid)

{

clrscr();

gotoxy(20,9);

cout<<"VOTING RESULTS";

int tie =0;

int winner=0;

int max = 0;

int i;

for(i = 0; i < num\_candidates; i++)

{

if (cs[i].numVotes > max)

{

max = cs[i].numVotes;

}

else if (cs[i].numVotes == max && max > 0)

tie = 1;

}

gotoxy(20,12);

if (tie) cout<<"Voting has resulted in tie, joint winners are";

else cout <<"WINNER is ";

gotoxy(20,13);

for(i = 0; i < num\_candidates; i++)

{

if (cs[i].numVotes == max)

{

candidate\_record cr;

candidate\_recordno(cs[i].candidate\_namecode,cr);

if (winner)

cout<<", ";

cout << "\n\n\t\t\t"<<cr.candidate\_name<<endl;

gotoxy(25,25);

cout<<"THE SUMMARY FOLLOWS";

delay(500);

gotoxy(25,27);

delay(500);

cout << "PARTY NAME -->"<<cr.partyname<<endl;

gotoxy(25,29);

delay(500);

cout << "PARTY SIGN -->"<<cr.partysign<<endl;

gotoxy(25,31);

delay(500);

cout << "REVENUE -->"<<cr.revenue<<endl;

gotoxy(25,33);

delay(500);

cout << "AGE -->"<<cr.age<<endl;

gotoxy(25,35);

delay(500);

cout << "AREA -->"<<cr.area;

winner++;

}

}

}

ch = getche();

delete[] vs;

delete[] cs;

}