**EXPERIMENT NO.11**

**Problem statement:**

Department maintains a student information. The file contains roll number,

name, division and address. Allow user to add, delete information of student.

Display information of particular employee. If record of student does not exist

an appropriate message is displayed. If it is, then the system displays the student

details. Use sequential file to main the data.

#include<iostream>

#include<fstream>

using namespace std;

class student

{

public:

char name[10];

int roll;

void getdata()

{

cout<<"\n Enter the roll no and name:";

cin>>roll>>name;

}

void putdata()

{

cout<<"\n The roll no and name:";

cout<<roll<<" "<<name;

}

};

class file

{

fstream fp;

public:

void create()

{

char ans;

student s;

fp.open("stu.dat",ios::out);

do

{

s.getdata();

fp.write((char \*)&s,sizeof(s));

cout<<"\n More?";

cin>>ans;

}while(ans=='Y'||ans=='y');

fp.close();

}

void append()

{

char ans;

student s;

fp.open("stu.dat",ios::app);

do

{

s.getdata();

fp.write((char \*)&s,sizeof(s));

cout<<"\n More?";

cin>>ans;

}while(ans=='Y'||ans=='y');

fp.close();

}

void display()

{

student s;

fp.open("stu.dat",ios::in);

while(!fp.eof())

{

fp.read((char \*)&s,sizeof(s));

if (!fp.eof())

s.putdata();

}

fp.close();

}

void search()

{

student s; int flag=0;

int r;

cout <<"\n Enter roll to be searched:";

cin >> r;

fp.open("stu.dat",ios::in);

while(!fp.eof())

{

fp.read((char \*)&s,sizeof(s));

if (!fp.eof() && s.roll==r)

{ flag=1; s.putdata(); break; }

}

if (flag==0) cout << "\n Not found";

fp.close();

}

void update()

{

student s; int flag=0;

int r;

cout <<"\n Enter roll to be updated:";

cin >> r;

fp.open("stu.dat",ios::in|ios::out);

while(!fp.eof())

{

fp.read((char \*)&s,sizeof(s));

if (!fp.eof() && s.roll==r)

{

flag=1;

cout <<"\n Enter new data\n";

s.getdata();

fp.seekp(-1\*sizeof(s),ios::cur);

fp.write((char \*)&s,sizeof(s));

break;

}

}

if (flag==0) cout << "\n Not found";

fp.close();

}

void delete1()

{

student s; int flag=0;

fstream fp1;

cout <<"\n Enter roll to be deleted:";

int r; cin >> r;

fp.open("stu.dat",ios::in);

fp1.open("temp.dat",ios::out);

while(fp.read((char \*)&s,sizeof(s)))

{

if ( s.roll!=r)

{

flag=1;

fp1.write((char \*)&s,sizeof(s));

}

}

if (flag==0) cout << "\n Not found";

fp.close();

fp1.close();

remove("stu.dat");

rename("temp.dat","stu.dat");

}

};

int main()

{

file f; int choice;

do{

cout << "\n1 create \n 2 display \n 3 Search \n 4 Append";

cout << " \n 6 delete \n 7 Update";

cout << "\n Enter choice:"; cin >> choice;

switch(choice)

{

case 1:f.create(); break;

case 2:f.display(); break;

case 3:f.search(); break;

case 4:f.append(); break;

case 6:f.delete1();break;

case 7:f.update();break;

}

}while(choice< 8);

}

