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Roll No.: 2221018

Batch : A Experiment no.: 05

Title : Database of students using file operation

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//Program

#include<iostream> #include<fstream> #include<string.h> using namespace std; class student

{

private:

int roll;

char name[20]; public:

student()

{ roll=-1; strcpy(name,"NULL");

}

void getdata(); void showdata(); int storedata(); void viewdata(); void searchbox(); void deletedata(); void edit();

};

void student :: getdata()

{

cout<<" ENTER THE ROLL NO AND THE NAME OF THE STUDENT \n";

cin>>roll; cin.ignore(); cin.getline(name,19);

}

void student :: showdata()

{ if(roll==- 1) {

cout<<" FILE IS EMPTY "<<endl;

}

else

{

cout<<endl;

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

}

} int student

::storedata()

{ if(roll==- 1)

{

cout<<" DATA IS NOT INITIALIZE IN THE FILE \n";

return 0;

}

else

{

ofstream write; write.open("ex2.txt", ios::app|ios::binary); write.write((char\*)this ,sizeof(\*this)); write.close(); return 1; }

}

void student :: viewdata()

{

cout<<"ROLL NAME \n"; ifstream read; read.open("ex2.txt",ios::in|ios::binary); if(!read)

{

cout<<"FILE NOT FOUND !!!\n";

}

else

{ if(roll==- 1)

{

cout<<" DATA NOT FOUND !!! \n FILE IS EMPTY ...\n";

}

else

{ read.read((char\*)this,sizeof(\*this)); read.read((char\*)this,sizeof(\*this));

}

read.close();

}

}

void student :: searchbox()

{ int x; if(roll==-1)

{

cout<<" FILE IS EMPTY !!!";

}

else

{

cout<<" \n ENTER THE DATA WHICH YOU WANT TO SEARCH : \n";

cin>>x; ifstream read; int flag=0; read.open("ex2.txt",ios::in|ios::binary); if(!read)

{

cout<<" FILE IS NOT OPEN "<<endl;

}

else

{ read.read((char\*)this,sizeof(\*this)); while(!read.eof())

{

if(x==this->roll)

{

showdata(); flag++;

read.read((char\*)this,sizeof(\*this));

} read.read((char\*)this,sizeof(\*this));

}

read.close();

}

if(flag==0)

{

cout<<" NO DATA FOUND ... \n";

}

}

}

void student :: deletedata()

{ int x,flag=0; if(roll==-1)

{

cout<<" FILE IS EMPTY !!!";

}

else

{

cout<<" ENTER THE ROLL NUMBER WHICH YOU WANT TO DELETE

\n"; cin>>x; ifstream read; ofstream write; read.open("ex2.txt", ios::in|ios::binary); write.open("temp1.txt", ios::out|ios::binary); read.read((char\*)this,sizeof(\*this)); while(!read.eof())

{

if(x==this->roll)

{ read.read((char\*)this,sizeof(\*this)); flag++;

}

else

{ write.write((char\*)this,sizeof(\*this)); read.read((char\*)this,sizeof(\*this));

}

}

if(flag==0)

{

cout<<" ROLL NUMBER NOT FOUND \n";

cout<<" PLEASE ENTER THE VALID ROLL NO \n";

}

read.close(); write.close(); remove("ex2.txt");

rename("temp1.txt","ex2.txt");

}

} void student :: edit()

{ int x; if(roll==- 1)

{

cout<<" DATA NOT FOUND !!!\n FILE IS EMPTY ... \n";

}

else

{

ifstream read; ofstream write; read.open("ex2.txt",ios::in|ios::binary); write.open("temp1.txt",ios::out|ios::binary); read.read((char\*)this,sizeof(\*this));

cout<<" ENTER THE ROLL NO YOU WANT TO REPLACE \n";

cin>>x; while(!read.eof())

{

if(x==this->roll)

{

getdata(); write.write((char\*)this,sizeof(\*this)); read.read((char\*)this,sizeof(\*this));

}

else

{ write.write((char\*)this,sizeof(\*this)); read.read((char\*)this,sizeof(\*this));

}

} read.close(); write.close(); remove("ex2.txt");

rename("temp1.txt","ex2.txt");

}

} int main()

{

student ob; int ch; while(1)

{ int choice; cout<<"\n MENU

"<<endl; cout<<" "<<endl; cout<<"

1. ADD STUDENT DATA "<<endl; cout<<" "<<endl; cout<<" 2. DELETE STUDENT DATA "<<endl; cout<<" "<<endl; cout<<" 3. DISPLAY

STUDENT DATA "<<endl; cout<<" "<<endl; cout<<" 4. SEARCH STUDENT DATA "<<endl;

cout<<" "<<endl; cout<<" 5. UPDATE STUDENT DATA "<<endl; cout<<" "<<endl; cout<<" 6.Exit "<<endl;

cout<<" "<<endl;

cout<<"enter the choice from the above"<<endl; cin>>choice; switch(choice)

{

case 1:

{

ob.getdata(); ob.storedata(); break;

}

case 2:

{

ob.deletedata(); break;

}

case 3:

{

ob.viewdata(); break;

}

case 4:

{

ob.searchbox(); break;

}

case 5:

{

ob.edit(); break;

}

case 6:

{

exit(0);

}

default:

{

cout<<" YOU HAVE ENTERED INVALID CHOICE \n";

}

}

} return 0; }

/\*

**OUTPUT:**

MENU

1. ADD STUDENT DATA
2. DELETE STUDENT DATA
3. DISPLAY STUDENT DATA
4. SEARCH STUDENT DATA
5. UPDATE STUDENT DATA6. EXIT enter the choice from the above 1

ENTER THE ROLL NO AND THE NAME OF THE STUDENT

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MENU

1. ADD STUDENT DATA
2. DELETE STUDENT DATA
3. DISPLAY STUDENT DATA
4. SEARCH STUDENT DATA
5. UPDATE STUDENT DATA6. EXIT enter the choice from the above 2

ENTER THE ROLL NUMBER WHICH YOU WANT TO DELETE 03

MENU

1. ADD STUDENT DATA
2. DELETE STUDENT DATA
3. DISPLAY STUDENT DATA
4. SEARCH STUDENT DATA
5. UPDATE STUDENT DATA6. EXIT enter the choice from the above 4

ENTER THE DATA WHICH YOU WANT TO SEARCH : 30

NO DATA FOUND ...

MENU

1. ADD STUDENT DATA
2. DELETE STUDENT DATA
3. DISPLAY STUDENT DATA
4. SEARCH STUDENT DATA
5. UPDATE STUDENT DATA6. EXIT enter the choice from the above 5

ENTER THE ROLL NO YOU WANT TO REPLACE 03

MENU

1. ADD STUDENT DATA
2. DELETE STUDENT DATA
3. DISPLAY STUDENT DATA
4. SEARCH STUDENT DATA
5. UPDATE STUDENT DATA6. EXIT enter the choice from the above 3 07 Ishwari

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