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**ROLL NO. :** A-61

**PRACTICAL NO. F1**

**CODE:**

#include<iostream>

#include<fstream>

#include<string.h>

#include<iomanip>

#include<stdlib.h>

using namespace std;

class record

{

int roll;

string div,name,address;

public:

int l;

record()

{

l=roll;

}

void accept();

void display();

int search(int);

};

void record::accept()

{

cout<<endl<<"Enter name: ";

cin>>name;

cout<<"Enter roll number: ";

cin>>roll;

l=roll;

cout<<"Enter address: ";

cin>>address;

cout<<"Enter division: ";

cin>>div;

}

void record::display()

{

cout<<endl<<roll<<setw(15)<<name<<setw(12)<<address<<setw(16)<<div;

}

int record::search(int x)

{

if(roll==x)

return 1;

return 0;

}

int main()

{

record r1[10],r2[20];

int ch,n;

do

{

cout<<endl<<endl<<"1.Add Record"<<endl<<"2.Display Record"<<endl<<"3.Search Record"<<endl<<"4.Delete"<<endl<<"5.Exit"<<endl<<"Enter your choice: ";

cin>>ch;

switch(ch)

{

case 1:

{

cout<<endl<<"Enter the number of records: ";

cin>>n;

ofstream fout;

fout.open("records",ios::binary|ios::out);

if(fout.fail())

{

cout<<endl<<"Error in opening the file !!";

return 1;

}

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

{

r1[i].accept();

fout.write((char\*)&r1[i],sizeof(r1[i]));

}

fout.close();

break;

}

case 2:

{

ifstream fin;

fin.open("records");

cout<<endl<<endl<<"STUDENT DATABASE"<<endl;

cout<<endl<<"Roll no."<<setw(10)<<"Name"<<setw(15)<<"Address"<<setw(17)<<"Division";

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

{

fin.read((char\*)&r2,sizeof(r2));

r2[i].display();

}

fin.close();

cout<<endl;

break;

}

case 3:

{

ifstream fin;

fin.open("records");

int r,z,s;

cout<<endl<<"Enter the roll number you want to search: ";

cin>>r;

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

{

fin.read((char\*)&r2,sizeof(r2));

z=r2[i].search(r);

s=i;

if(z==1)

break;

}

if(z==1)

{

cout<<"Record found";

cout<<endl<<"Roll no."<<setw(10)<<"Name"<<setw(15)<<"Address"<<setw(17)<<"Division";

r2[s].display();

}

else

cout<<"Record not present";

fin.close();

break;

}

case 4:

{

int d;

cout<<endl<<"Enter the roll number you want to delete: ";

cin>>d;

cout<<"Record deleted";

ofstream o("temp",ios::out|ios::binary);

ifstream i("records",ios::in|ios::binary);

record r3;

while(i.read((char\*)&r3,sizeof(r3)))

if(r3.l!=d)

o.write((char\*)&r3,sizeof(r3));

o.close();

i.close();

o.open("records",ios::binary|ios::out);

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

while(i.read((char\*)&r3,sizeof(r3)))

o.write((char\*)&r3,sizeof(r3));

o.close();

i.close();

n=n-1;

break;

}

case 5:

exit(0);

}

}while(ch>0 && ch<5);

}

**OUTPUT:**

