ASSIGNMENT-10: FILE HANDLING

Code:

```cpp
#include <iostream>
#include <fstream>
using namespace std;

class student
{

    int roll_no;
    char Name[30];
    char Division[5];
    char Address[50];


public:
    void accept();
    void display();
    int rollno()
    {
        return roll_no;
    }

};


void student::accept()
{
    cout<<"\nEnter Roll Number: ";
```

```cpp
        cin>>roll_no;

        cout<<"\nEnter Name: ";
        cin.ignore();
        cin.getline(Name,30);

        cout<<"\nEnter Division: ";
        cin>>Division;

        cout<<"\nEnter Address: ";
        cin>>Address;

        cout<<"\n";
}


void student::display()
{
        cout<<"\n    "<<roll_no<<"\t  "<<Name<<"  \t\t
"<<Division<<"\t      "<<Address;
}


void create()
{
        student s;
        int n, i;

        ofstream out("Student.txt");
        cout<<"\nHow many records do you want to enter?: ";
        cin>>n;
```

```cpp
        for(i=0;i<n;i++)
        {
            s.accept();
            out.write((char *)&s,sizeof(s));
        }

        out.close();
}


void search()
{
    int n, flag=0;

    cout<<"\nEnter Roll Number To Be Searched: ";
    cin>>n;
    ifstream infile("Student.txt");

    student s;
    while(infile.read((char *)&s,sizeof(s)))
    {
        if(s.rollno()==n)
        {
            cout<<"\nRecord Found\n";
            cout<<"\nRoll Number            Name
Division      Address";
            s.display();
            flag=1;
            break;
```

```cpp
        }
    }

    if(flag==0)
    {
        cout<<"\nRecord Not Found.";
    }

    infile.close();
}


void display()
{
    student s;
    ifstream infile("Student.txt");
    while(infile.read((char *)&s, sizeof(s)))
    {
        s.display();
    }

    infile.close();
}


void add_record()
{
    student s;
    ofstream outfile("Student.txt",ios::app);
```

```cpp
        s.accept();
        outfile.write((char *)&s,sizeof(s));
        outfile.close();
        cout<<"Record Successfully Added.";
}




void delete_record()
{
        int n, flag=0;
        cout<<"\nEnter Roll Number Whose Record To Be Deleted:";
        cin>>n;
        ifstream infile("student.txt"); // to read from source file
        ofstream temp("temp.txt"); // to write in destination
file(temporary file)
        student s;
        while(infile.read((char *)&s, sizeof(s)))
        {
            if(s.rollno()!=n)
            {
                temp.write((char *)&s, sizeof(s));
            }

            else
            {
                flag=1;
                cout<<"\nRecord Successfully Deleted.";
            }
        }
```

```cpp
			if(flag==0)
			{
				cout<<"\nRecord Not Found.";
			}

			infile.close();
			temp.close();
			remove("Student.txt");
			rename("temp.txt","Student.txt");
}



int main()
{
	int choice,roll_no,Marks;
	char Name[30];
	ofstream out("Student.txt");
	out.close();
	do
	{	cout<<"\n";
		cout<<"\nMenu:\n1) Create Database.\n2) Display.\n3)
Add record.\n4) Search Record.\n5)Delete Record.\n6) Exit.";
		cout<<"\n\nEnter Your Choice:   ";
		cin>>choice;

		switch(choice)
		{
			case 1:
				cout<<"\n";
```

```cpp
                create();
                break;

        case 2:
                cout<<"\n";
                cout<<"\nRoll Number          Name
Division        Address";
                display();
                break;

        case 3:
                cout<<"\n";
                add_record();
                break;

        case 4:
                cout<<"\n";
                search();
                break;

        case 5:
                cout<<"\n";
                delete_record();
                break;

        case 6:
                cout<<"\n";
                cout<<"You Have Successfully Exitted...";
                break;
        }
    }
```

```
        while(choice!=5);

        return 0;
}
```

OUTPUT:

```
Menu:
1) Create Database.
2) Display.
3) Add record.
4) Search Record.
5)Delete Record.
6) Exit.


Enter Your Choice:  1



How many records do you want to enter?: 3

Enter Roll Number: 1

Enter Name: YASH

Enter Division: A

Enter Address: NASHIK
```

Enter Roll Number: 2

Enter Name: STEVE

Enter Division: B

Enter Address: PUNE

Enter Roll Number: 3

Enter Name: RAJ

Enter Division: C

Enter Address: MUMBAI

Menu:
1) Create Database.
2) Display.
3) Add record.
4) Search Record.
5)Delete Record.
6) Exit.

Enter Your Choice: 2

Roll Number	Name	Division	Address
1	YASH	A	NASHIK
2	STEVE	B	PUNE
3	RAJ	C	MUMBAI

Menu:

1) Create Database.

2) Display.

3) Add record.

4) Search Record.

5)Delete Record.

6) Exit.

Enter Your Choice: 3

Enter Roll Number: 4

Enter Name: TIM

Enter Division: D

Enter Address: UP

Record Successfully Added.

Menu:

1) Create Database.

2) Display.

3) Add record.

4) Search Record.

5)Delete Record.

6) Exit.

Enter Your Choice: 4

Enter Roll Number To Be Searched: 3

Record Found

Roll Number	Name	Division	Address
3	RAJ	C	MUMBAI

Menu:

1) Create Database.

2) Display.

3) Add record.

4) Search Record.

5)Delete Record.

6) Exit.

Enter Your Choice: 5

Enter Roll Number Whose Record To Be Deleted:4

Record Successfully Deleted.