

ASSIGNMENT 23

```
#include <bits/stdc++.h>

using namespace std;

typedef struct _Student {
    int rollno;
    char name[16];
    char div;
    char address[32];
} Student;

class StudentDB {
private:
    vector<Student> data;
    string filename;
    fstream* db;

public:
    StudentDB(const string& filename): filename(filename) {}

    void addRecord(int r, const char* n, char d, const char* a) {
        fstream db(filename, ios::app | ios::binary);
        Student temp;
        temp.rollno = r;
        temp.div = d;
        strncpy(temp.name, n, 16);
        strncpy(temp.address, a, 32);
        db.write((char*)&temp, sizeof(Student));
        db.flush();
        db.close();
    }
};
```

```
}
```

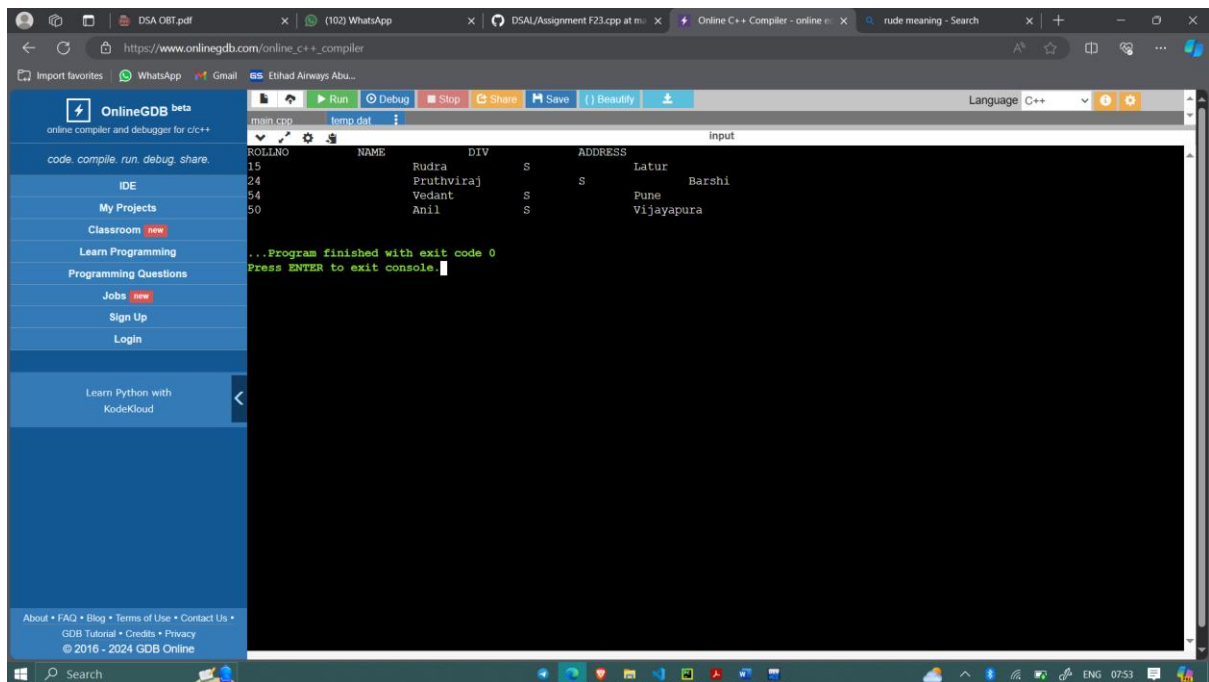
```
void readFromFile() {  
    fstream db(filename, ios::in | ios::binary);  
    Student temp;  
    while (db.read((char*)&temp, sizeof(Student))) {  
        db.peek();  
        data.push_back(temp);  
    }  
    db.close();  
}
```

```
void display() {  
    cout << "ROLLNO\t\tNAME\t\tDIV\t\tADDRESS" << endl;  
    for (const auto& elem : data) {  
        cout << elem.rollno << "\t\t" << elem.name << "\t\t" << elem.div << "\t\t" << elem.address  
<< endl;  
    }  
}  
};
```

```
int main() {  
    StudentDB db("temp.dat");  
  
    db.addRecord(15, "Rudra", 'S', "Latur");  
    db.addRecord(24, "Pruthviraj", 'S', "Barshi");  
    db.addRecord(54, "Vedant", 'S', "Pune");  
    db.addRecord(50, "Anil", 'S', "Vijayapura");  
  
    db.readFromFile();  
    db.display();  
}
```

```
return 0;  
  
}
```

OUTPUT :



The screenshot shows the OnlineGDB C++ compiler interface. The program being executed is a C++ program that prints a table of student data. The output of the program is as follows:

ROLLNO	NAME	DIV	ADDRESS
15	Rudra	S	Latur
24	Pruthviraj	S	Barshi
54	Vedant	S	Pune
50	Anil	S	Vijayapura

...Program finished with exit code 0
Press ENTER to exit console