Assignment No. 11

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Programme:

```
#include <iostream>

#include <fstream>

using namespace std;


class student {

public:

    char name[10];

    int roll;


    void getdata() {

        cout << "\nEnter the roll no and name: ";

        cin >> roll >> name;

    }


    void putdata() {

        cout << "\nThe roll no and name: ";

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

    }

};


class fil {

    fstream fp;


public:

    void create() {
```

```
    char ans;
    student s;
    fp.open("stu.dat", ios::out | ios::binary);
    do {
        s.getdata();
        fp.write((char*)&s, sizeof(s));
        cout << "\nMore? (Y/N): ";
        cin >> ans;
    } while (ans == 'Y' || ans == 'y');
    fp.close();
}

void append() {
    char ans;
    student s;
    fp.open("stu.dat", ios::app | ios::binary);
    do {
        s.getdata();
        fp.write((char*)&s, sizeof(s));
        cout << "\nMore? (Y/N): ";
        cin >> ans;
    } while (ans == 'Y' || ans == 'y');
    fp.close();
}

void display() {
    student s;
    fp.open("stu.dat", ios::in | ios::binary);
    while (fp.read((char*)&s, sizeof(s))) {
        s.putdata();
    }
    fp.close();
}
```

```
void search() {
    student s;
    int flag = 0;
    int r;
    cout << "\nEnter roll to be searched: ";
    cin >> r;
    fp.open("stu.dat", ios::in | ios::binary);
    while (fp.read((char*)&s, sizeof(s))) {
        if (s.roll == r) {
            flag = 1;
            s.putdata();
            break;
        }
    }
    if (flag == 0)
        cout << "\nNot found";
    fp.close();
}

void update() {
    student s;
    int flag = 0;
    int r;
    cout << "\nEnter roll to be updated: ";
    cin >> r;
    fp.open("stu.dat", ios::in | ios::out | ios::binary);
    while (fp.read((char*)&s, sizeof(s))) {
        if (s.roll == r) {
            flag = 1;
            cout << "\nEnter new data:\n";
            s.getdata();
            streampos pos = fp.tellg();
```

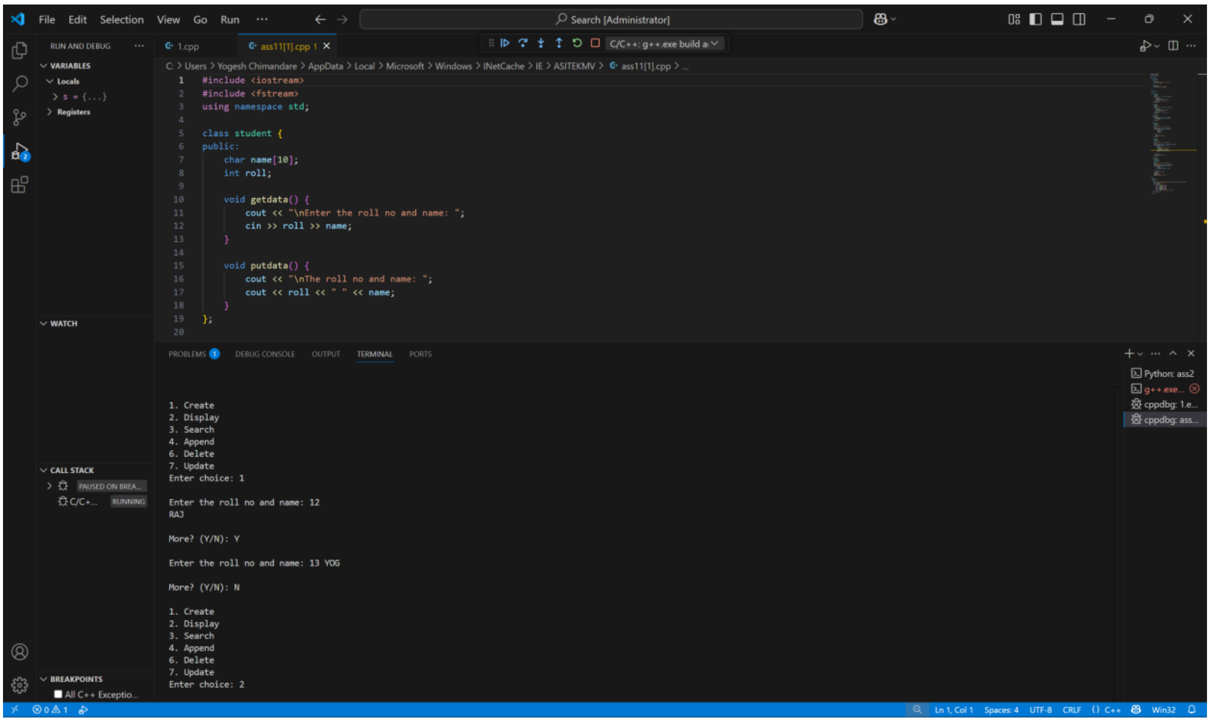
```
                fp.seekp(pos - sizeof(s));
                fp.write((char*)&s, sizeof(s));
                break;
            }
        }
        if (flag == 0)
            cout << "\nNot found";
        fp.close();
    }

    void delete1() {
        student s;
        int flag = 0;
        fstream fp1;
        int r;
        cout << "\nEnter roll to be deleted: ";
        cin >> r;
        fp.open("stu.dat", ios::in | ios::binary);
        fp1.open("temp.dat", ios::out | ios::binary);
        while (fp.read((char*)&s, sizeof(s))) {
            if (s.roll != r) {
                flag = 1;
                fp1.write((char*)&s, sizeof(s));
            }
        }
        if (flag == 0)
            cout << "\nNot found";
        fp.close();
        fp1.close();
        remove("stu.dat");
        rename("temp.dat", "stu.dat");
    }
};
```

```
int main() {
    fil f;
    int choice;
    do {
        cout << "\n1. Create\n2. Display\n3. Search\n4. Append\n6. Delete\n7. Update";
        cout << "\nEnter 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;
            default: cout << "Invalid choice."; break;
        }
    } while (choice < 8);

    return 0;
}
```

Output:



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

class student {
public:
    char name[10];
    int roll;

    void getdata() {
        cout << "\nEnter the roll no and name: ";
        cin >> roll >> name;
    }

    void putdata() {
        cout << "\nThe roll no and name: ";
        cout << roll << " " << name;
    }
};

```

```
1. Create
2. Display
3. Search
4. Append
6. Delete
7. Update
Enter choice: 1

Enter the roll no and name: 12
RAJ

More? (Y/N): Y

Enter the roll no and name: 13 YOG

More? (Y/N): N

1. Create
2. Display
3. Search
4. Append
6. Delete
7. Update
Enter choice: 2
```