Assignment No. 11

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Roll No: COA218

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();
```

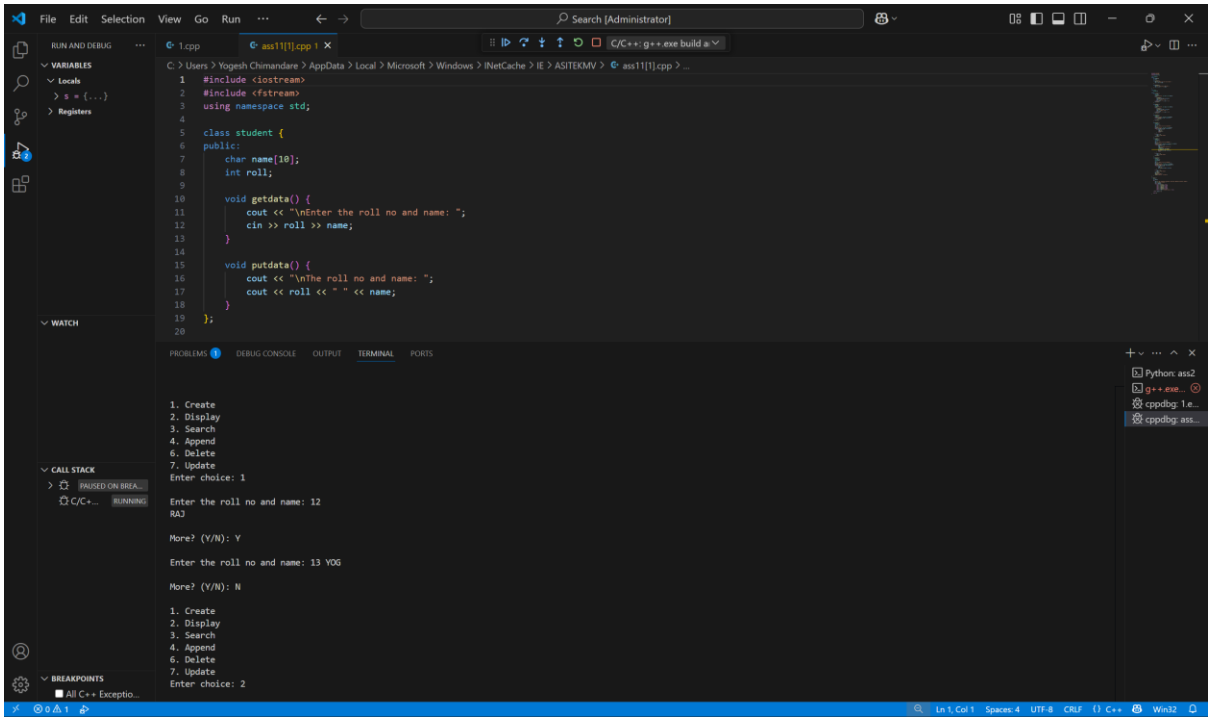
```
            fp.seekp(pos - sizeof(s));
            fp.write((char*)&s, sizeof(s));
            break;
          }
       }
       if (flag == 0)
          cout << "\nNot found";
       fp.close();
    }

    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:


File Edit Selection View Go Run
Search [Administrator]
1.cpp
ass11[1].cpp 1
C/C++: g++.exe build a
RUN AND DEBUG
VARIABLES
Locals
s = {...}
Registers
WATCH
CALL STACK
PAUSED ON BREA...
C/C+...
RUNNING
BREAKPOINTS
All C++ Exceptio...
C: > Users > Yogesh Chimandare > AppData > Local > Microsoft > Windows > INetCache > IE > A5ITEKMV > ass11[1].cpp > ...
#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;
}
};
PROBLEMS 1
DEBUG CONSOLE
OUTPUT
TERMINAL
PORTS
Python: ass2
g++.exe...
cppdbg: 1.e...
cppdbg: ass...
1. Create
2. Display
3. Search
4. Append
6. Delete
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
Ln 1, Col 1
Spaces: 4
UTF-8
CRLF
C++
Win32