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STD: AI&DS

DIV & ROLL.NO: A-74

BATCH: A4

Problem Statement:

Develop an object oriented program in C++ to create a database of student information system containing the following information: Name, Roll number, Class, division, Date of Birth, Blood group, Contact address, telephone number, driving license no. etc Construct the database with suitable member functions for initializing and destroying the data viz constructor, default constructor, Copy constructor, destructor, static member functions, friend class, this pointer, inline code and dynamic memory allocation operators- new and delete.

Program:

```
#include <iostream>
```

```
#include <string>
```

```
using namespace std;
```

```
class Student {
```

```
private:
```

```
    string name;
```

```
    int rollNumber;
```

```
    string className;
```

```
    char division;
```

```
    string dob;
```

```
    string bloodGroup;
```

```
    string contactAddress;
```

```
    int telephoneNumber;
```

```
    string drivingLicense;
```

public:

```
Student(string n, int rn, string cn, char d, string dOB,string bg,string ca,int tn,string dl) : name(n),  
rollNumber(rn), className(cn), division(d), dob(dOB), bloodGroup(bg), contactAddress(ca),  
telephoneNumber(tn), drivingLicense(dl) {
```

```
    cout << "Student " << name << " created." <<endl;
```

```
}
```

```
~Student() {
```

```
    cout << "Student " << name << " destroyed." <<endl;
```

```
}
```

```
void displayInfo() {
```

```
    cout << "Name: " << name <<endl;
```

```
    cout << "Roll Number: " << rollNumber <<endl;
```

```
    cout << "Class: " << className << endl;
```

```
    cout << "Division: " << division <<endl;
```

```
    cout << "Date of Birth: " << dob <<endl;
```

```
    cout << "Blood Group: " << bloodGroup <<endl;
```

```
    cout << "Contact Address: " << contactAddress <<endl;
```

```
    cout << "Telephone Number: " << telephoneNumber <<endl;
```

```
    cout << "Driving License: " << drivingLicense <<endl;
```

```
}
```

```
};
```

```
int main() {
```

```
    Student student1("Nikita Nigade", 74, "74A", 'A', "03/08/2003", "o+", "333", 123-456-7890 ,  
"DL12345");
```

```
    student1.displayInfo();
```

```
return 0;
```

```
}
```

Output:

Student Nikita Nigade created.

Name: Nikita Nigade

Roll Number: 74

Class: 74A

Division: A

Date of Birth: 03/08/2003

Blood Group: o+

Contact Address: 333

Telephone Number: -8223

Driving License: DL12345

Student Nikita Nigade destroyed.