

# OOC LABORATORY

## Lab Assignment : 02

Name : Ayush Kadali  
Roll No. : 54  
PRN : 1032232229  
Panel : B  
Batch : B2  
SY B.Tech CSE (AI & DS)

### Input Code:

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

class Student {
private:
    char name[50];
    int rollNumber;
    char className[20];
    char division;
    char dateOfBirth[11];
    char aadharNumber[13];
    char bloodGroup[4];
    char contactAddress[100];
    long telephoneNumber;

public:
    // Default constructor
    Student() {
        strcpy(name, "Ayush");
        rollNumber = 102045;
        strcpy(className, "OOP");
        division = 'B';
        strcpy(dateOfBirth, "07-12-2005");
        strcpy(aadharNumber, "9485 3834 8459");
        strcpy(bloodGroup, "B+");
        strcpy(contactAddress, "Pune");
        telephoneNumber = 9920485937;
    }
}
```

```

// Parameterized constructor
Student(const char* n, int roll, const char* class_name, char div, const char* dob,
        const char* aadhar, const char* blood, const char* address, long phone) {
    strcpy(name, n);
    rollNumber = roll;
    strcpy(className, class_name);
    division = div;
    strcpy(dateOfBirth, dob);
    strcpy(aadharNumber, aadhar);
    strcpy(bloodGroup, blood);
    strcpy(contactAddress, address);
    telephoneNumber = phone;
}

// Copy constructor
Student(const Student& other) {
    strcpy(name, other.name);
    rollNumber = other.rollNumber;
    strcpy(className, other.className);
    division = other.division;
    strcpy(dateOfBirth, other.dateOfBirth);
    strcpy(aadharNumber, other.aadharNumber);
    strcpy(bloodGroup, other.bloodGroup);
    strcpy(contactAddress, other.contactAddress);
    telephoneNumber = other.telephoneNumber;
}

void display() {
    cout << "Name: " << name << endl;
    cout << "Roll Number: " << rollNumber << endl;
    cout << "Class: " << className << endl;
    cout << "Division: " << division << endl;
    cout << "Date of Birth: " << dateOfBirth << endl;
    cout << "Aadhar Number: " << aadharNumber << endl;
    cout << "Blood Group: " << bloodGroup << endl;
    cout << "Contact Address: " << contactAddress << endl;
    cout << "Telephone Number: " << telephoneNumber << endl;
    cout << "-----" << endl;
    cout << endl;
}

};

int main() {

```

```
// Using default constructor
Student student1;
cout << "Student 1 (Default Constructor):" << endl;
student1.display();

// Using parameterized constructor
Student student2("Rohan", 1038492390, "SYAIDS", 'A', "20-08-2005", "9850 4850 9490",
"O+", "Mumbai", 9485038596);
cout << "Student 2 (Parameterized Constructor):" << endl;
student2.display();

// Using copy constructor
Student student3 = student2;
cout << "Student 3 (Copy Constructor):" << endl;
student3.display();

return 0;
}
```

## OUTPUT

Student 1 (Default Constructor):

Name: Ayush

Roll Number: 102045

Class: OOP

Division: B

Date of Birth: 07-12-2005

Aadhar Number: 9485 3834 84

Blood Group: B+

Contact Address: Pune

Telephone Number: 9920485937

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Student 2 (Parameterized Constructor):

Name: Rohan

Roll Number: 1038492390

Class: SYAIDS

Division: A

Date of Birth: 20-08-2005

Aadhar Number: 9850 4850 94

Blood Group: O+

Contact Address: Mumbai

Telephone Number: 9485038596

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Student 3 (Copy Constructor):

Name: Rohan

Roll Number: 1038492390

Class: SYAIDS

Division: A

Date of Birth: 20-08-2005

Aadhar Number: 9850 4850 94

Blood Group: O+

Contact Address: Mumbai

Telephone Number: 9485038596

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