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/*/
 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. */
#include <iostream>
#include <string.h>
#include <stdlib.h>
using namespace std;

class Student {
    int roll;
    char name[15];
    char address[25];
    char class_name[12];
    char dob[12];
    char licno[15];
    char blood_gr[3];
    char mobile_no[12];

public:
    // Constructor
    Student() {
        roll = 0;
        strcpy(name, "");
        strcpy(address, "");
        strcpy(class_name, "");
        strcpy(dob, "");
        strcpy(licno, "");
        strcpy(blood_gr, "");
        strcpy(mobile_no, "");
    }

    // Parameterized constructor
    Student(int roll, const char* name, const char* address, const char*
class_name, const char*
dob, const char* licno, const char* blood_gr, const char* mobile_no) {
        this->roll = roll;
        strcpy(this->name, name);
        strcpy(this->address, address);
        strcpy(this->class_name, class_name);
        strcpy(this->dob, dob);
        strcpy(this->licno, licno);
        strcpy(this->blood_gr, blood_gr);
        strcpy(this->mobile_no, mobile_no);
    }

    // Copy constructor
    Student(const Student& other) {
        roll = other.roll;
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        strcpy(name, other.name);
        strcpy(address, other.address);
        strcpy(class_name, other.class_name);
        strcpy(dob, other.dob);
        strcpy(licno, other.licno);
        strcpy(blood_gr, other.blood_gr);
        strcpy(mobile_no, other.mobile_no);
    }
     // Destructor
    ~Student() {
    }

    // Function to accept student details
    void accept() {
        cout << "\nEnter roll number: ";
        cin >> roll;
        cout << "Enter name: ";
        cin.ignore();
        cin.getline(name, 15);
        cout << "Enter address: ";
        cin.getline(address, 25);
        cout << "Enter class name: ";
        cin.getline(class_name, 12);
        cout << "Enter DOB (dd/mm/yyyy): ";
        cin.getline(dob, 12);
        cout << "Enter license number: ";
        cin.getline(licno, 15);
        cout << "Enter blood group: ";
        cin.getline(blood_gr, 3);
        cout << "Enter mobile number: ";
        cin.getline(mobile_no, 12);
    }

    // Function to display student details
    void display() const {
        cout << "\nRoll: " << roll;
        cout << "\nName: " << name;
        cout << "\nAddress: " << address;
        cout << "\nClass: " << class_name;
        cout << "\nDOB: " << dob;
        cout << "\nLicense No: " << licno;
        cout << "\nBlood Group: " << blood_gr;
        cout << "\nMobile No: " << mobile_no << endl;
    }
};

int main() {
    int ch, n;
    Student students[20];  // Array to store student records

    while (1) {
        cout << "\nMenu\n1. Accept Student Details\n2. Display All
Students\n3. Exit\nEnter Choice: ";
        cin >> ch;
        switch (ch) {
            case 1:
                cout << "Enter number of students: ";
                cin >> n;
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                for (int i = 0; i < n; i++) {
                    cout << "\nEntering details for Student " << (i + 1)
<< ":\n";
                    students[i].accept();
                }
                break;

            case 2:
                for (int i = 0; i < n; i++) {
                    cout << "\nDisplaying details of Student " << (i + 1)
<< ":\n";
                    students[i].display();
                }
                break;

            case 3:
                exit(0);

            default:
                cout << "\nInvalid choice. Please try again.";
        }
    }

    return 0;
}
```