

C++ Program for Van Assignment

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#include <iostream>
#include <string>
using namespace std;

struct Student {
    string name;
    string time;
    string route;
};

int main() {
    // Task 1: Van capacity
    const int totalVans = 4;
    const int vanCapacities[totalVans] = {15, 15, 10, 10};
    const int totalStudents = 15;

    // Task 3: Student names and assignment
    Student students[totalStudents] = {
        {"Ali", "8 AM", "Point A to B"},
        {"Sara", "2 PM", "Point B to A"},
        {"Ahmed", "8 AM", "Point A to B"},
        {"Fatima", "2 PM", "Point B to A"},
        {"Hassan", "8 AM", "Point A to B"},
        {"Zara", "2 PM", "Point B to A"},
        {"Bilal", "8 AM", "Point A to B"},
        {"Maryam", "2 PM", "Point B to A"},
        {"Usman", "8 AM", "Point A to B"},
        {"Aisha", "2 PM", "Point B to A"},
        {"Omar", "8 AM", "Point A to B"},
        {"Hiba", "2 PM", "Point B to A"},
        {"Zain", "8 AM", "Point A to B"},
        {"Amna", "2 PM", "Point B to A"},
        {"New Student", "Not Assigned", "Not Assigned"} // Placeholder for user input
    };

    // Task 2: Display van timings and routes
    cout << "Van Timings and Routes:\n";
    cout << "1. Time: 8 to 9 AM, Route: Point A to B\n";
    cout << "2. Time: 2 PM, Route: Point B to A\n\n";
```

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// Display current list of students
cout << "Current List of Students:\n";
for (int i = 0; i < totalStudents; i++) {
    cout << i + 1 << ". " << students[i].name
        << " - Time: " << students[i].time
        << " - Route: " << students[i].route << endl;
}

// Task 5: Allow user to enter their time and route
cout << "\nEnter your details:\n";

// Prompt for the student's name
cout << "Enter your name: ";
cin.ignore(); // To ignore the leftover newline character from previous input
getline(cin, students[14].name);

// Prompt for the time
cout << "Choose Time (1 for '8 AM', 2 for '2 PM'): ";
int timeChoice;
cin >> timeChoice;

if (timeChoice == 1) {
    students[14].time = "8 AM";
} else if (timeChoice == 2) {
    students[14].time = "2 PM";
} else {
    cout << "Invalid choice, defaulting to 'Not Assigned'.\n";
    students[14].time = "Not Assigned";
}

// Prompt for the route
cout << "Choose Route (1 for 'Point A to B', 2 for 'Point B to A'): ";
int routeChoice;
cin >> routeChoice;

if (routeChoice == 1) {
    students[14].route = "Point A to B";
} else if (routeChoice == 2) {
    students[14].route = "Point B to A";
} else {
    cout << "Invalid choice, defaulting to 'Not Assigned'.\n";
    students[14].route = "Not Assigned";
}

```

```
// Display updated list of students
cout << "\nUpdated List of Students:\n";
for (int i = 0; i < totalStudents; i++) {
    cout << i + 1 << ". " << students[i].name
        << " - Time: " << students[i].time
        << " - Route: " << students[i].route << endl;
}
string comment;
cout<<"ANY COMMENTS ??, IF YES ADD THEM HERE:";
cin>>comment;
cout<<"Your comment will be reviewed shortly";

return 0;
}
```