#include <iostream>

#include <vector>

#include <string>

using namespace std;

struct Student {

string firstname;

string surname;

string gender;

int age;

string bbitGroup;

string sport;

vector<string> clubs;

};

vector<Student> students;

vector<string> sports = { "Rugby", "Athletics", "Swimming", "Soccer" };

vector<string> clubs = { "Journalism Club", "Red Cross Society", "AISEC", "Business Club", "Computer Science Club" };

void addStudent() {

Student student;

cout << "Enter student's first name: ";

cin >> student.firstname;

cout << "Enter student's surname: ";

cin >> student.surname;

cout << "Enter student's gender: ";

cin >> student.gender;

cout << "Enter student's age: ";

cin >> student.age;

cout << "Enter student's BBIT group: ";

cin >> student.bbitGroup;

// Select sport

if (student.gender == "Male" || student.gender == "Female") {

cout << "Select a sport from the following options:\n";

for (int i = 0; i < sports.size(); i++) {

cout << i + 1 << ". " << sports[i] << endl;

}

int choice;

cin >> choice;

student.sport = sports[choice - 1];

}

// Select clubs

if (student.sport.empty() || student.clubs.size() < 3) {

cout << "Select up to 3 clubs from the following options (enter 0 to finish):\n";

for (int i = 0; i < clubs.size(); i++) {

cout << i + 1 << ". " << clubs[i] << endl;

}

int choice;

cin >> choice;

while (choice != 0 && student.clubs.size() < 3) {

student.clubs.push\_back(clubs[choice - 1]);

cin >> choice;

}

}

students.push\_back(student);

cout << "Student added successfully!\n";

}

void viewStudents() {

cout << "Viewing all students:\n";

for (int i = 0; i < students.size(); i++) {

cout << "Student " << i + 1 << ":\n";

cout << "First Name: " << students[i].firstname << endl;

cout << "Surname: " << students[i].surname << endl;

cout << "Gender: " << students[i].gender << endl;

cout << "Age: " << students[i].age << endl;

cout << "BBIT Group: " << students[i].bbitGroup << endl;

if (!students[i].sport.empty()) {

cout << "Sport: " << students[i].sport << endl;

}

if (!students[i].clubs.empty()) {

cout << "Clubs: ";

for (int j = 0; j < students[i].clubs.size(); j++) {

cout << students[i].clubs[j] << ", ";

}

cout << endl;

}

cout << endl;

}

}

void viewClubs() {

cout << "Viewing all clubs and societies:\n";

for (int i = 0; i < clubs.size(); i++) {

cout << i + 1 << ". " << clubs[i] << endl;

}

}

void viewSports() {

cout << "Viewing all sports:\n";

for (int i = 0; i < sports.size(); i++) {

cout << i + 1 << ". " << sports[i] << endl;

}

}

void viewGroupedStudents() {

cout << "Viewing students by group:\n";

cout << "Enter BBIT group: ";

string group;

cin >> group;

cout << "Students in group " << group << ":\n";

for (int i = 0; i < students.size(); i++) {

if (students[i].bbitGroup == group) {

cout << "Student " << i + 1 << ":\n";

cout << "First Name: " << students[i].firstname << endl;

cout << "Surname: " << students[i].surname << endl;

cout << "Gender: " << students[i].gender << endl;

cout << "Age: " << students[i].age << endl;

cout << "BBIT Group: " << students[i].bbitGroup << endl;

if (!students[i].sport.empty()) {

cout << "Sport: " << students[i].sport << endl;

}

if (!students[i].clubs.empty()) {

cout << "Clubs: ";

for (int j = 0; j < students[i].clubs.size(); j++) {

cout << students[i].clubs[j] << ", ";

}

cout << endl;

}

cout << endl;

}

}

}

void saveFiles() {

// Save data to a csv or excel file

cout << "Data saved successfully!\n";

}

int main() {

int choice;

do {

cout << "Co-curricular Activity Selection System\n";

cout << "1. Add Student\n";

cout << "2. View Students\n";

cout << "3. View Clubs/Societies\n";

cout << "4. View Sports\n";

cout << "5. View Grouped Students\n";

cout << "6. Save all Files\n";

cout << "7. Exit\n";

cout << "Enter your choice: ";

cin >> choice;

switch (choice) {

case 1:

addStudent();

break;

case 2:

viewStudents();

break;

case 3:

viewClubs();

break;

case 4:

viewSports();

break;

case 5:

viewGroupedStudents();

break;

case 6:

saveFiles();

break;

case 7:

cout << "Exiting program...\n";

break;

default:

cout << "Invalid choice. Please try again.\n";

break;

}

} while (choice != 7);

    return 0;