OurSpace

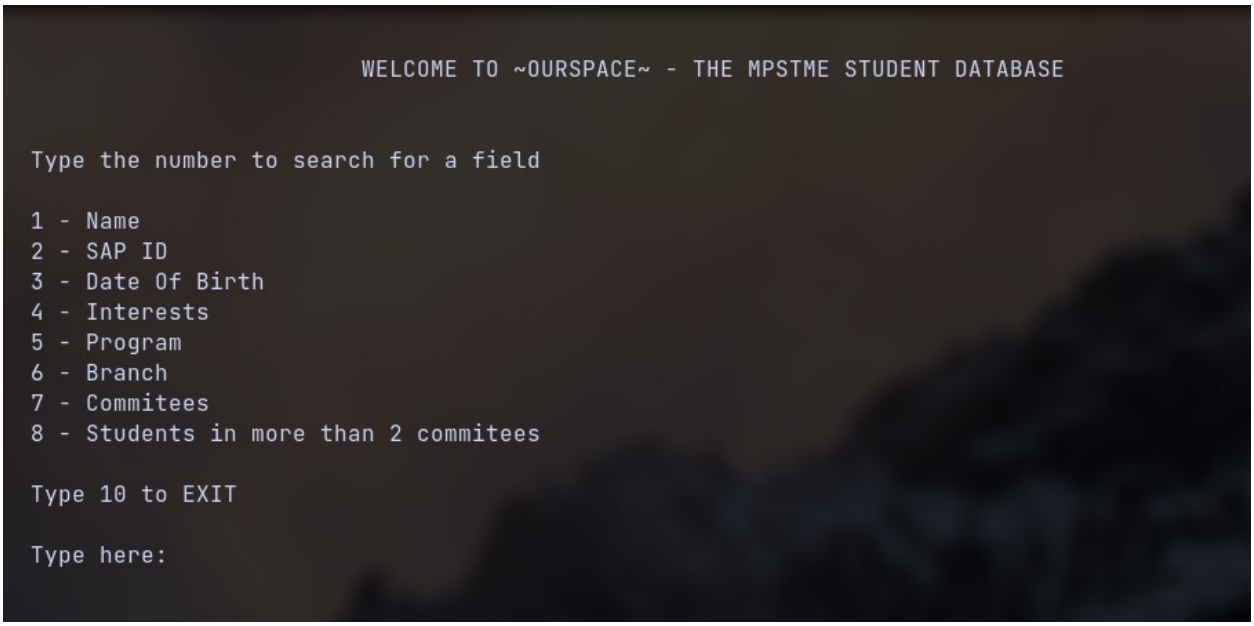
Name of Group Members:

1. Nnisarg Gada - B027
2. Juhi Purohit - B026
3. Divyansh Agrawal - B008

Functionality Implemented:

OurSpace is a cli ‘portal’ for MPSTME students created using C++, where students can access and search for data such as interests, committees, etc. of other students. An example use case would be, if someone wants to organize a football tournament, they can search for ‘football’ in the ‘interests’ option to get the details of students whose interests include football.

Working Code Snapshot:



```
Enter name to search: nni



1.

Name: "Nnisarg Gada"

SAP ID: 70022200141

Gender: "Male"

Date Of Birth: "06/05/2004"

Interests: "Coding, Networking, Existential Philosophy"

Program: "BTECH"

Branch: "CE"

Commitees: "TECH COMM, DUMMY COMM 1, DUMMY COMM 2"

**  THIS STUDENT IS IN MORE THAN 2 COMMITEES  **

nnisarggada@CERBERUS-MINI ~/OurSpace (main)>
```

```cpp
void search(string field)
{
    Clear();
    string key;
    cout << "Enter " << field << " to search: ";
    cin >> key;
    cout << "\n\n";
    bool found = false;
    int count = 0;
    for (int i = 0; i < len; i++)
    {
        string tempName;
        if (field == "name")
        {
            tempName = e[i].name;
        }
        else if (field == "SAP ID")
            {
                tempName = e[i].sapID;
            }
        else if (field == "date of birth")
            {
                tempName = e[i].dateOfBirth;
            }
        else if (field == "interests")
            {
                tempName = e[i].interests;
            }
        else if (field == "program")
            {
                tempName = e[i].program;
            }
        else if (field == "branch")
            {
                tempName = e[i].branch;
            }
        else if (field == "commitees")
            {
                tempName = e[i].commitees;
            }

        boost::algorithm::to_lower(tempName);
        boost::algorithm::to_lower(key);
        if (strstr(tempName.c_str(), key.c_str()))
        {
            found = true;
            count++;
            cout << endl;
            cout << endl;
            cout << count << ". " << endl;
            cout << endl;
            cout << "Name: " << e[i].name << endl;
            cout << "SAP ID: " << e[i].sapID << endl;
            cout << "Gender: " << e[i].gender << endl;
            cout << "Date Of Birth: " << e[i].dateOfBirth << endl;
            cout << "Interests: " << e[i].interests << endl;
            cout << "Program: " << e[i].program << endl;
            cout << "Branch: " << e[i].branch<< endl;
            cout << "Commitees: " << e[i].commitees << endl;

            if (e[i].noOfCommitees > 2)
                {
                    cout << "**  THIS STUDENT IS IN MORE THAN 2 COMMITEES  **" << endl << endl;
                }
        }
    }
    if (!found)
    {
        cout << "No students matching the search :/\n\n";
    }
}
```

```
void init()
{
    // Using fstream to get file pointer
    ifstream file("db.json");
    Json::Value actualJson;
    Json::Reader reader;
    Json::FastWriter fastWriter;

    // Using reader to parse json
    reader.parse(file, actualJson);
    len = actualJson.size();

    for (int i=0; i<len; i++)
    {
        string name = fastWriter.write(actualJson[i]["Name"]);
        string sap_id = fastWriter.write(actualJson[i]["SAP ID"]);
        string gender = fastWriter.write(actualJson[i]["Gender"]);
        string date_of_birth = fastWriter.write(actualJson[i]["Date Of Birth"]);
        string interests = fastWriter.write(actualJson[i]["Interests"]);
        string program = fastWriter.write(actualJson[i]["Program"]);
        string branch = fastWriter.write(actualJson[i]["Branch"]);
        string commitees = fastWriter.write(actualJson[i]["Commitees"]);
        e[i].name = name;
        e[i].sapID = sap_id;
        e[i].gender = gender;
        e[i].dateOfBirth = date_of_birth;
        e[i].interests = interests;
        e[i].program = program;
        e[i].branch = branch;
        e[i].commitees = commitees;

        std::string::difference_type n = std::count(commitees.begin(), commitees.end(), ',');
        e[i].noOfCommitees = n+1;
    }
}
```

Individual Contribution:

1. Juhi Purohit - B026 - Handling data collection, formatting .csv data and creating logic *welcome()* function [for display]

2. Divyansh Agrawal - B008 - Creating logic in *main()* function [for input]

3. Nnisarg Gada - B027 - Creating class '*entry*' [for managing data], creating logic in *init()* function [for reading and storing JSON data to object of class '*entry*'] and creating logic in *search()* function [for searching data]

Project Files:

https://www.github.com/nnisarggada/OurSpace (db.json is added to .gitignore as to protect privacy of the students whose data was collected)