Project with Java Spring :

University of Excellence

Presentation

Project Description and Purpose:

In this Project, I used Java Spring to dispatch the data of a specific University via HTTP responses.

I created a fictional University, naming it "UOE: The University of Excellence".

The students of this University are historical and prominent figures of the past, from various scientific fields, such as Alan Turing, Plato, Marie Curie, Nikola Tesla, Friedrich Nietzsche, in order to honor their contribution to human history (this also justifies the facts in the welcoming page of the program as it appears on the web, stating that the university was established in Meritland in 723AD by Duchess Laudable I of Meritland).

The courses provided by this University are diverse; from Computer Engineering to Philosophy.

The purpose of this Java Spring Project is to display via URIs on the web:

1. The welcoming page of the University

2. The students studying at this University

3. The courses provided by this University

4. The mark achieved by a specific student in a course

5. The marks achieved by a specific student in all courses.

6. Display all the above by creating a welcoming web page with the respective landing pages and designing an interactive environment with user-friendly navigational links.

In this Project, the following were defined:

- each student by id and name
- each course by its name
- each mark achieved in each course by id and name of the student, name of the course and mark achieved.

In the repository lists were created for the three classes described above.

The next step was to create the Service for each one of the three entities. For that purpose, I used three csv files:

- students.csv
- courses.csv
- marks.csv

Each file was uploaded within the corresponding Service, where the required methods were implemented according to the purposes of this project.

In order to create the welcoming page of the University and its landing pages, three HTML files were created using HTML and CSS formatting. The respective files were:

- welcome.html
- LoginFormForMarkPerCourse.html
- LoginFormForMarks.html

Finally, the Controllers were used to dispatch the data via HTTP responses, in order to fulfill the purpose of the project and get the desired results deriving from the six-fold aspect of this purpose as described above, which was to display a welcoming page of the University, the students of the University, the courses provided, the mark achieved by a specific student in a specific course, as well as all marks achieved by a specific student in all his/her courses and display the data retrieved from the aforementioned files as json files on the web, via a user-friendly, interactive web environment.

Running the application locally

In order to run this Spring Boot application on your local machine, you can execute the main method in the gr.codehub.UniversityOfExcellence.UniversityOfExcellenceApplication class from your IDE.

When you run the application, the results that shall appear on the web are presented below:

Welcome to UOE: University of Excellence

Established in Meritland in 723AD by Duchess Laudable I of Meritland, the UOE is associated with numerous Nobel laureates, justifying its name as the University of Excellence.

Prominent Students of UOE:

Take a look

Courses provided by the UOE:

Check them out here

Students' Portal:

If you would like to check your mark in a particular course, please follow the instructions below:

1. Please visit the following page: Mark for each course
2. Please enter your unique ID and name of the course for which you would like to check your mark, and then click the "Get mark" button. Your mark in this course shall appear on the screen.

If you would like to check the marks in all of your courses, please follow the instructions below:

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[
    - {
        id: 23061912,
        name: "Alan Turing"
    },
    - {
        id: 7111867,
        name: "Marie Curie"
    },
    - {
        id: 42842742,
        name: "Plato the Philosopher"
    },
    - {
        id: 10071856,
        name: "Nikola Tesla"
    },
    - {
        id: 2111911,
        name: "Odysseus Elytis"
    },
    - {
        id: 26021802,
        name: "Victor Hugo"
    },
    - {
        id: 3111191,
        name: "Mary Somerville"
    },
    - {
        id: 28021901,
        name: "Linus Pauling"
    },
    - {
        id: 16031750,
        name: "Caroline Herchel"
    },
    - {
        id: 15101844,
        name: "Friedrich Nietzsche"
    },

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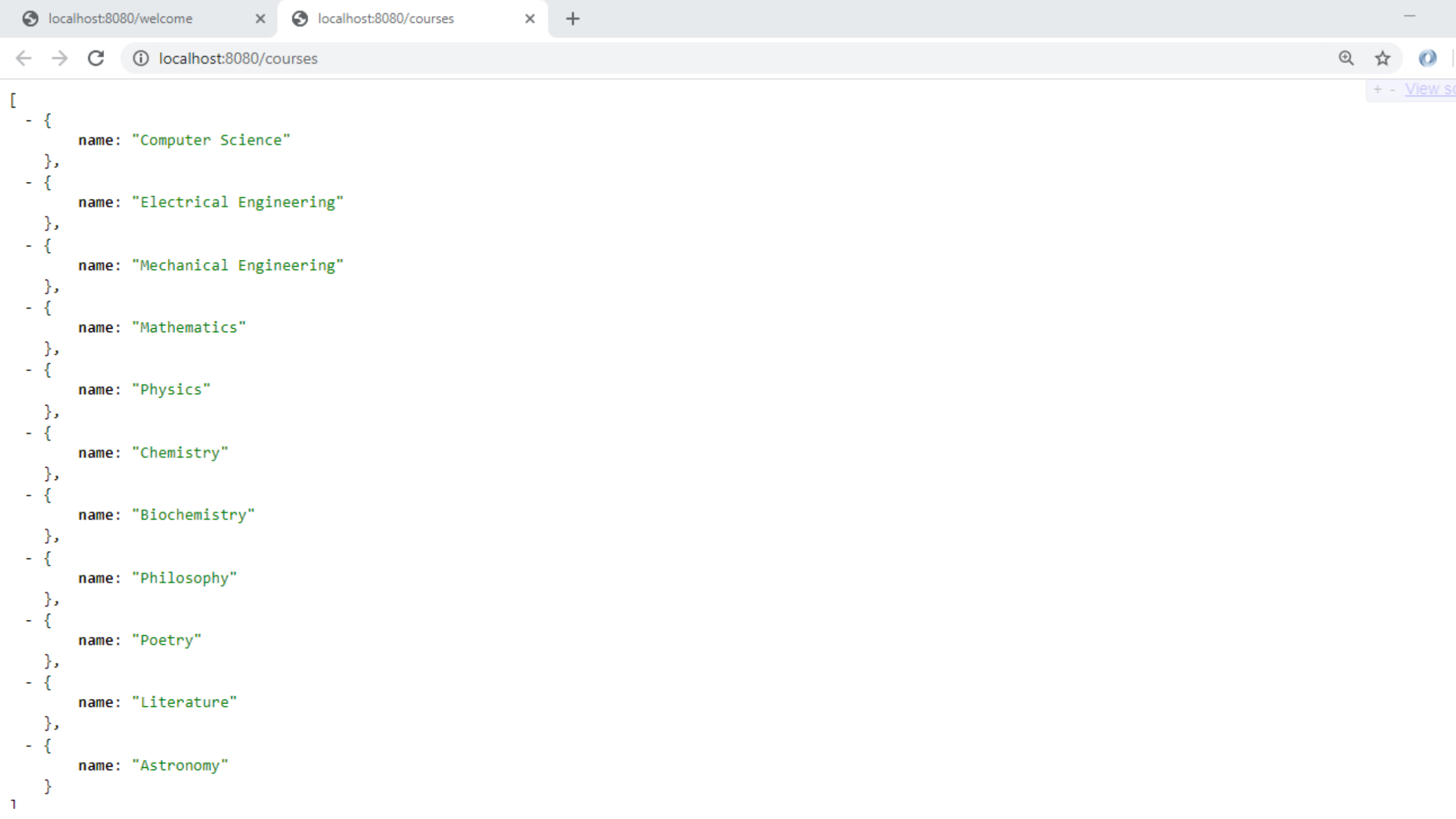Courses provided by the UOE:

Check them out here

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[
    - {
        name: "Computer Science"
    },
    - {
        name: "Electrical Engineering"
    },
    - {
        name: "Mechanical Engineering"
    },
    - {
        name: "Mathematics"
    },
    - {
        name: "Physics"
    },
    - {
        name: "Chemistry"
    },
    - {
        name: "Biochemistry"
    },
    - {
        name: "Philosophy"
    },
    - {
        name: "Poetry"
    },
    - {
        name: "Literature"
    },
    - {
        name: "Astronomy"
    }
]

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Mark per course

Student's ID   Please enter your ID   **Course**   Please enter the desired course   Get mark

Mark per course

Student's ID 23061912   **Course** Computer Science   Get mark

```
{
    id: 23061912,
    name: "Alan Turing",
  - course: {
        name: "Computer Science"
    },
    mark: 10
}
```

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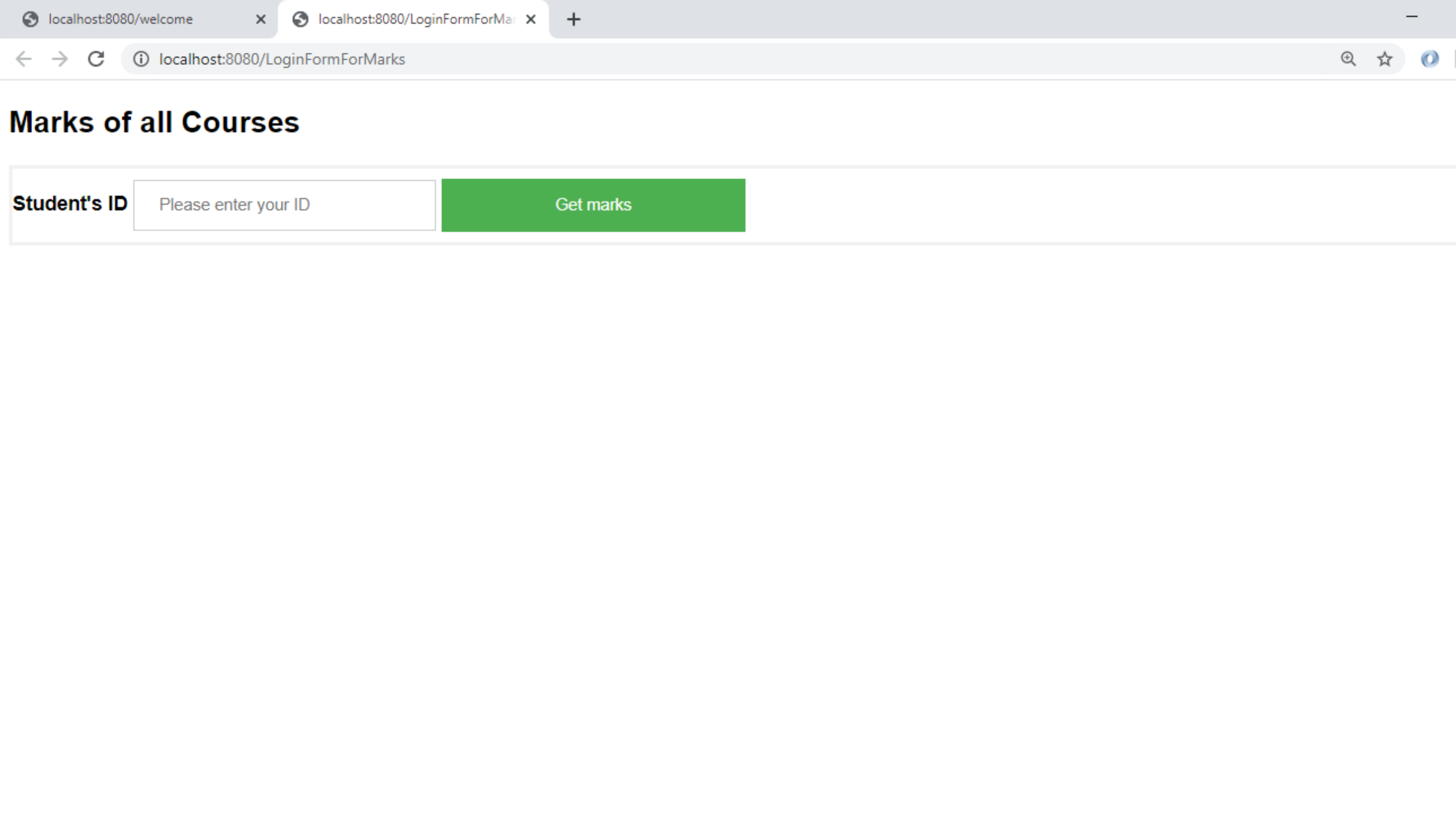Courses provided by the UOE:

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2. Please enter your unique ID, and then click the "Get marks" button. Your marks in all courses shall appear on the screen.

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Marks of all Courses

Student's ID | Please enter your ID | Get marks

Marks of all Courses

Student's ID   23061912   Get marks

```
{
    - marks: [
        - {
            id: 23061912,
            name: "Alan Turing",
            - course: {
                name: "Computer Science"
            },
            mark: 10
        },
        - {
            id: 23061912,
            name: "Alan Turing",
            - course: {
                name: "Poetry"
            },
            mark: 9
        }
    ]
}
```