
# CEN 308 SOFTWARE ENGINEERING

## PROJECT DOCUMENTATION

IMO

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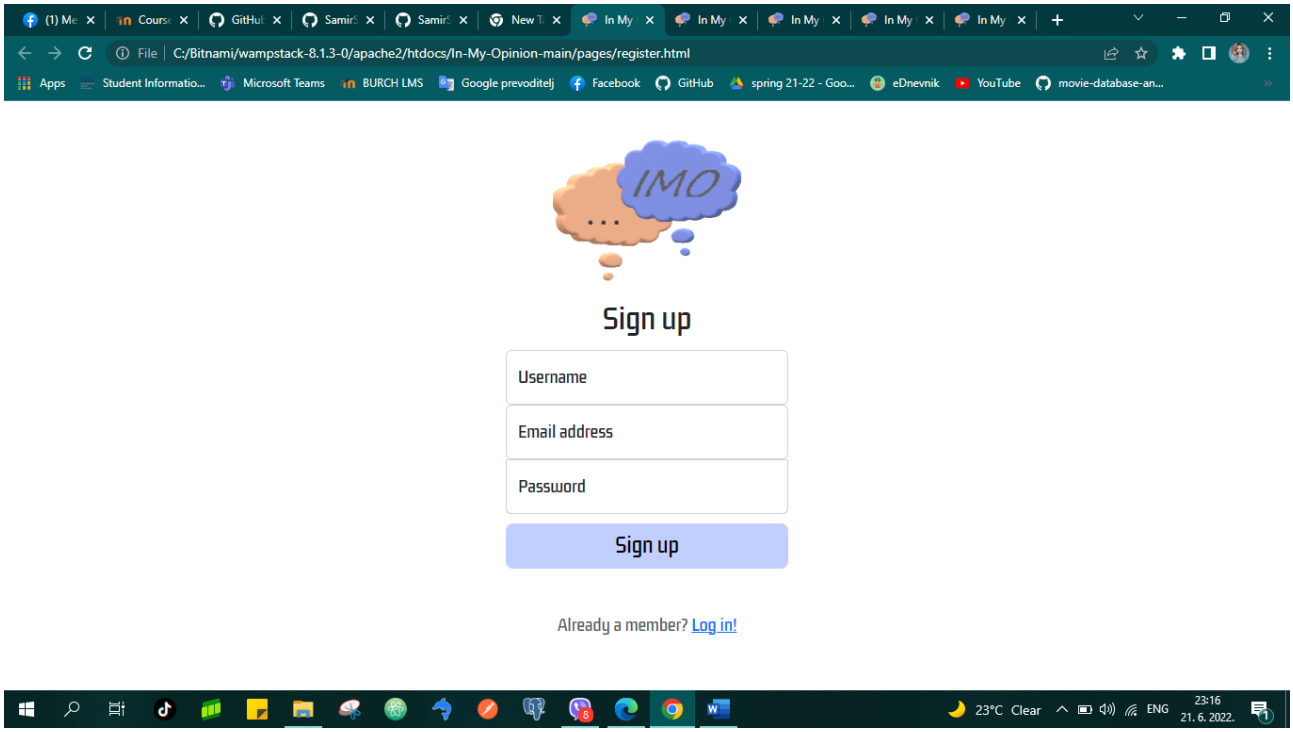
# 1. Introduction

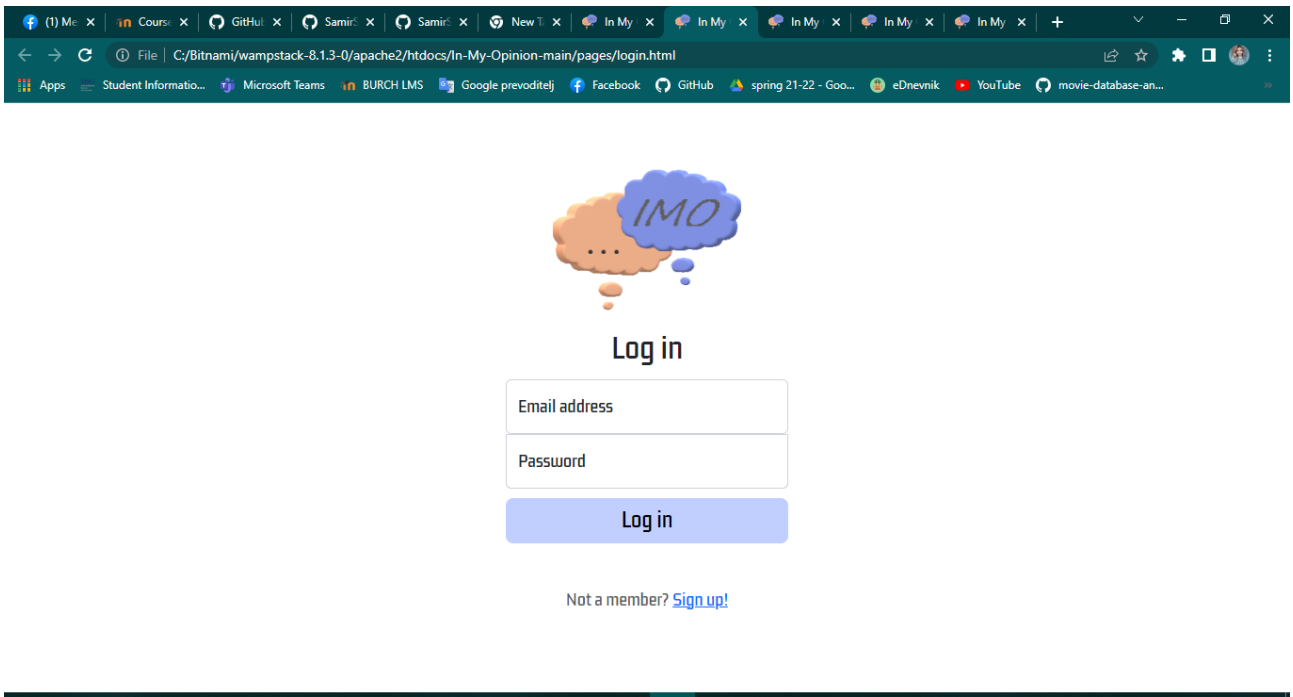
## 1.1. About the Project

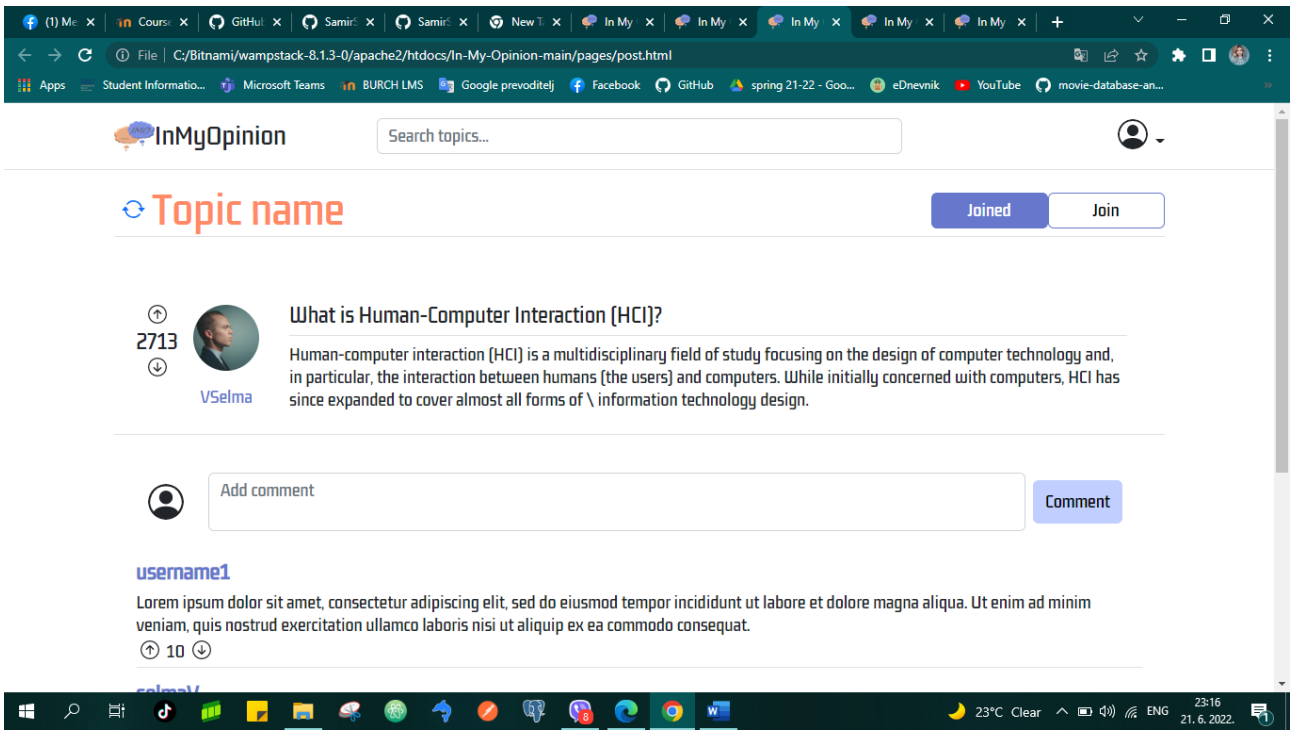
https://in-my-opinion-imo.herokuapp.com

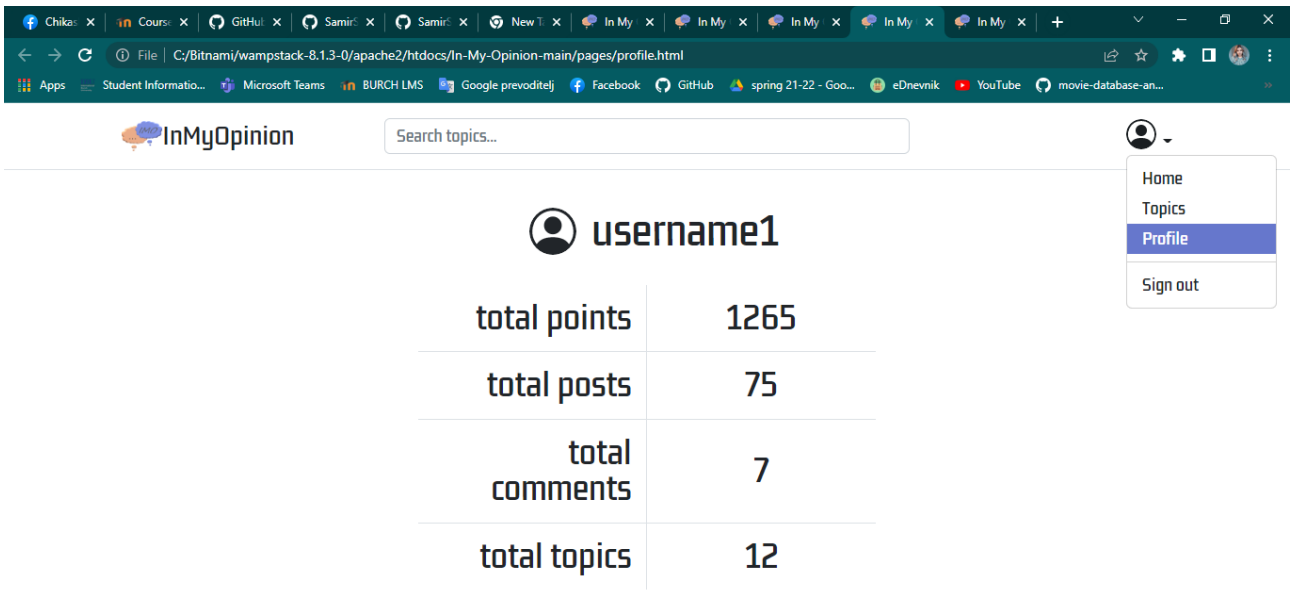
Many high-schoolers and young adults share the same problem: they struggle to find people they have something in common with. In My Opinion (or IMO for short) is a solution to that dilemma. Users will be able to interact with others that are interested in the same topics as them. They can share ideas, experiences, questions, and general comments on that subject. Each user will be able to share posts that relate to that particular topic, and other users will have the option to leave their comments on the posts. Both the posts and comments will have an upvote and downvote feature which should help filter out the best and worst posts/comments. All posts and comments are made public to everyone who subscribes to that topic. Users can join discussions on many different topics and will have a 'point count'. This count will increase with each upvote that their post/comment gets and decrease with each downvote that they receive. The IMO website will allow users to interact with others with similar interests and help them find company in activities and pass-times that they are passionate about, but perhaps lacked the proper company to share that passion with.

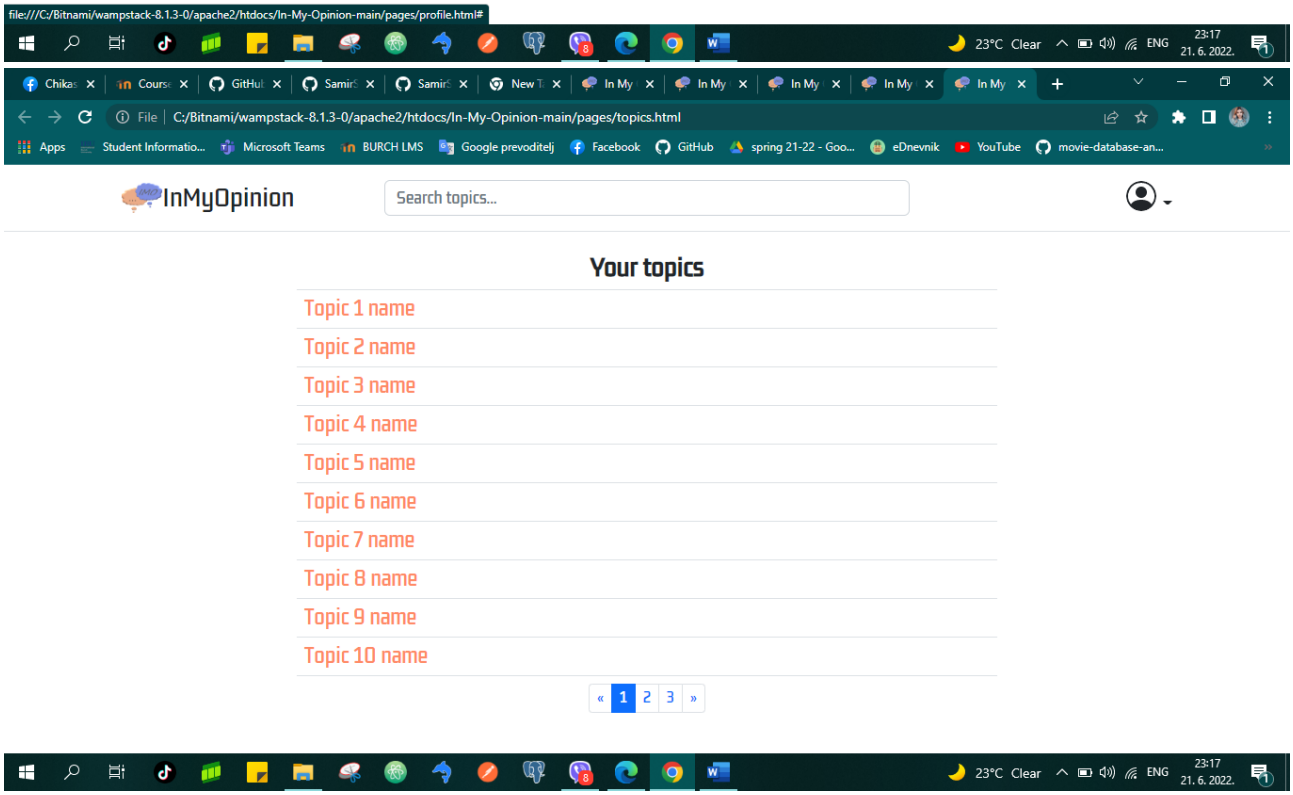
## 1.2. Project Functionalities and Screenshots




File | C:/Bitnami/wampstack-8.1.3-0/apache2/htdocs/In-My-Opinion-main/pages/login.html
IMO
Log in
Email address
Password
Log in
Not a member? Sign up!


File | C:/Bitnami/wampstack-8.1.3-0/apache2/htdocs/In-My-Opinion-main/pages/post.html
InMyOpinion
Search topics...
Topic name
Joined
Join
2713
VSelma
What is Human-Computer Interaction (HCI)?
Human-computer interaction (HCI) is a multidisciplinary field of study focusing on the design of computer technology and, in particular, the interaction between humans (the users) and computers. While initially concerned with computers, HCI has since expanded to cover almost all forms of \ information technology design.
Add comment
Comment
username1
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.
10




The main features:

1. Mobile-friendliness,
2. User registration and login,
3. Search Bar,
4. An upvote and downvote,
5. Creating a topic,
6. Commenting,
7. Subscribing to topics.

# 2. Project Structure

## 2.1. Technologies

Technologies:
HTML, CSS, JavaScript, PHP, MySQL

Code editors:
Atom, Microsoft Visual Studio

SQL editor:
SQLyog,

## 2.2 Coding standard

Php:
PSR-12

JavaScript:
Airbnb JavaScript Style Guide

CSS:
CKAN - https://docs.ckan.org/en/2.9/contributing/css.html

HTML:
CKAN - https://docs.ckan.org/en/2.9/contributing/html.html

## 2.2. Database Entities

- accounts
- topics
- posts
- post_votes → Votes of a topic assigned by the user
- comment_votes → Votes of a comment assigned by the user
- comments
- subscriptions → Topics that you follow as a user, or on which you are subscribed

## 2.3. Architectural Pattern

2.3.1. Layered Architectural Pattern (n-tier pattern)

Basically, as the name suggests this pattern components are divided into different layers and each layer is responsible for a particular task. Each layer has given a specific role for which it will be responsible for. It is divided into 4 below layers:
Presentation layer,
Business layer,
Persistence layer,

Database layer.
Each of them communicates for a level above, without skipping.

### 2.4. Design Patterns

The front controller pattern - index.php
We use the front controller pattern, because there is place where we have a single entrance point for web application that handles all of the requests. This code is responsible for loading all of the dependencies, processing the request and sending the response to the browser.

## 3. Conclusion

In order to get a clear focus of our project, it is crucial to determine precise research questions.

The questions that our project aims to answer are:

How do the intended users express their opinion about a subject that they care about?

How do the intended users meet others with similar interests?

We think we have succeeded in answering these tasks. Of course, every project could be improved. But, my colleague and I focused on simplicity, easy interface, friendly, that users could easily use, but also a functional backend. If we look at personal satisfaction, it would definitely complement each other's knowledge gaps, as well as the joint acquisition of new knowledge.

## 4. Additional test documentation

| **4.1. Test Name: User registration** | | | | |
|---|---|---|---|---|
| **Description:** It is necessary to check the functionality of all steps during user registration. | | | | |
| **Pre-condition(s):**<br>Google Chrome as web driver is loaded. | | | | |
| **Test Steps:**<br><br>1. Click on “sign up” text link<br>2. Check if the URL of the opened page corresponds to the preferred option<br>3. Click on “Username” and fill in it<br>4. Click on “Email address” and fill in it<br>5. Click on “Password” and fill in it<br>6. Click on “Sign Up” button | **Test Data:**<br><br>1. “Sign up” text link<br>2. “Sign Up” button | **Expected Result:**<br><br>The user fills in the form correctly and creates a profile. | **Actual Result:**<br><br>The user fills in the form correctly and creates a profile. | **Status:**<br><br>PASS |

**Notes:**

```
@Test
@Order(2)
void testLogIn() throws InterruptedException {
    webDriver.get(baseUrl);
    webDriver.manage().window().maximize();
Thread.sleep(1000);
    webDriver.findElement(By.xpath("//*[@id=\"loginForm\"]/p/a")).click();
    webDriver.findElement(By.xpath("//*[@id=\"logInEmailInput\"]")).sendKeys("samirS@gmail.com");
    webDriver.findElement(By.xpath("//*[@id=\"logInPasswordInput\"]")).sendKeys("passwordexample1");
    webDriver.findElement(By.xpath("//*[@id=\"registerUsernameInput\"]")).sendKeys("samirS");
    Thread.sleep(2000);
    webDriver.findElement(By.xpath("//*[@id=\"registerForm\"]/buttonn")).click();
    Thread.sleep(2000);
}
```

## 4.2. Test Name: User login

**Description:** Check all the functionalities that we come across when user want to log in

**Pre-condition(s):**
Google Chrome as web driver is loaded.
The user must be registered.

| Test Steps: | Test Data: | Expected Result: | Actual Result: | Status: |
|---|---|---|---|---|
| 1. Click “log in” text link<br>2. Check if the URL of the opened page corresponds to the preferred option<br>3. Click on “Email address” and fill in it<br>4. Click on “Password” and fill in it<br>5. Click on “Log In” button | 1. “log in” text link<br>2. “Log In” button | The user fills in the form correctly and log in. | The user fills in the form correctly and log in. | PASS |

**Notes:**

```
@Test
@Order(2)
void testLogIn() throws InterruptedException {
    webDriver.get(baseUrl);
    webDriver.manage().window().maximize();
Thread.sleep(1000);
    webDriver.findElement(By.xpath("//*[@id=\"registerForm\"]/p/a")).click();
    webDriver.findElement(By.xpath("//*[@id=\"logInEmailInput\"]")).sendKeys("samirS@gmail.com");
    webDriver.findElement(By.xpath("//*[@id=\"logInPasswordInput\"]")).sendKeys("passwordexample1");
    Thread.sleep(2000);
    webDriver.findElement(By.xpath("//*[@id=\"loginForm\"]/button")).click();
    Thread.sleep(2000);
}
```

**4.3. Test Name: Subscribe to the topic**

**Description:** test whether a user can subscribe to a topic

**Pre-condition(s):**
Google Chrome as web driver is loaded.
The user must be logged.

| **Test Steps:** | **Test Data:** | **Expected Result:** | **Actual Result:** | **Status:** |
|---|---|---|---|---|
| 1. Choose a topic<br>2. Click on “join” button<br>3. Check does comment container exist | 1. topic link<br>2. “join” button | The user is able to subscribe to a topic. | The user is able to subscribe to a topic. | PASS |

**Notes:**

```
@Test
@Order(3)
void testSub() throws InterruptedException {
    webDriver.get(baseUrl);
    webDriver.manage().window().maximize();
    Thread.sleep(1000);
    webDriver.findElement(By.id("joinButton")).click();
    Thread.sleep(2000);
    webDriver.findElement(By.id("createPostContainer")).click();
    Thread.sleep(2000);
}
```

**4.4. Test Name: Leave the topic**

**Description:** check if the logged user is able to leave the topic

**Pre-condition(s):**
Google Chrome as web driver is loaded.
The user must be subscribe.

| **Test Steps:** | **Test Data:** | **Expected Result:** | **Actual Result:** | **Status:** |
|---|---|---|---|---|
| 1. Choose a subscribed topic<br>2. Click on button “leave”<br>3. Click on button “join” | 1. topic<br>2. leave button | The user is able to leave the topic. | The user is able to leave the topic. | PASS |

**Notes:**

```
}
@Test
@Order(4)
void testSub() throws InterruptedException {
    webDriver.get(baseUrl);
    webDriver.manage().window().maximize();
    Thread.sleep(1000);
    webDriver.findElement(By.id("leaveButton")).click();
    Thread.sleep(2000);
    webDriver.findElement(By.id("joinButton")).click();
    Thread.sleep(2000);
}
```

| **4.5. Test Name: Logo Test** | | | | |
|---|---|---|---|---|
| **Description:** Check if user is taken to homepage when logo is clicked. | | | | |
| **Pre-condition(s):**<br>Google Chrome as web driver is loaded. | | | | |
| **Test Steps:**<br>1. Go to the BaseUrl page.<br>2. Click on some topic.<br>3. Ensure you've been navigated to the link you want.<br>4. Click on the logo in the upper left corner.<br>5. Ensure you're back on the homepage. | **Test Data:**<br><br>1. topic link<br>2. logo | **Expected Result:**<br><br>The user is able to homepage when logo is clicked. | **Actual Result:**<br><br>The user is able to homepage when logo is clicked. | **Status:**<br><br>PASS |
| **Notes:** | | | | |

```
@Test
@Order(1)
void testLogo() throws InterruptedException {
    webDriver.get(baseUrl);
    webDriver.manage().window().maximize();
    Thread.sleep(2000);
    webDriver.navigate().to(baseUrl + "/topics.html");
    Thread.sleep(2000);
    webDriver.findElement(By.cssSelector("img[src='../assets/images/imo_logo.png\']")).click();
    String url1 = webDriver.getCurrentUrl();
    assertEquals(baseUrl, url1);
    Thread.sleep(2000);
}
```