



# Test Plan - iMentor Web App

## 1. Introduction

This document outlines the test plan for the web application iMentor. The purpose of this test plan is to ensure that the web application functions as intended for guest, students, and mentors users, and meets all functional and non-functional requirements.

Test the core functionalities in iMentor, how each works, and the behavior in different scenarios.

objectives, functionalities

### 1.1 Objectives

- Verify the functionality of iMentor meets the acceptance criteria
- Ensure that iMentor is compatible with multiple browsers
- Verify the roles are defined with their respective permissions
- Verify that iMentor displays information following the expected design
- Verify the integration of the different parts of iMentor

## 2. Scope

This test plan will cover testing for the following aspects of the web application:

- Exploratory
- Functionality
- User interface
- Compatibility
- Security
- Usability
- Exploratory

Home page	Buttons, forms, fields
Profile	Information, buttons
Roles	Nav flow, UI, Interaction
Courses	Fields, display

### 3. Test Cases

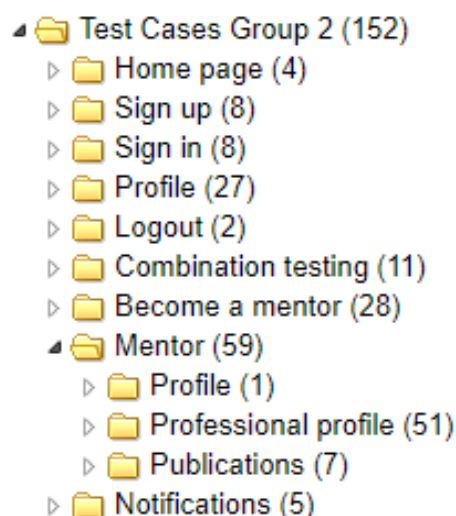
The following test cases will be executed to ensure the web application meets all requirements.

#### 3.1. Testing techniques

- Domain testing – Data
  - ☐ Valid
  - ☐ Invalid
  - ☐ Boundary
- Combination testing – (Students – Mentors - Guest)
  - ☐ Registration and authentication functionalities for both roles.(Student - Mentor)
  - ☐ Access and permissions to perform different actions on the platform, such as sending messages, viewing profiles, creating and responding to publications, scheduling meetings, among others.
  - ☐ Platform navigation flow for both roles, including the way content is displayed and organized on the page.

#### 3.2. Test case management tool

- TestLink 1.9.20
- Project name: Test Design - MTDK01
- Group folder: Test Cases Group 2



### 3.3. Test Environment

The test environment for this web application includes:

- Browser: Google Chrome, Microsoft Edge, and Mozilla Firefox
- Operating System: Windows 10 / 11
- Test Data: Strings, images, links.

### 3.4. Prioritization

The prioritization of test cases will be based on:

- Frequency of use (Log in - Chat - Navigation)
- Importance (Main functionalities by role)
- Risk (Fields prone to errors)

	Likelihood	Impact	Priority
Login	4	4	2
Sign up	4	4	3
Logout	3	3	3
Become a mentor	2	3	3
Create course	3	3	3
Publications	1	1	1
Request course	1	1	1
Chat	2	4	3
API	3	3	3
Payment	1	1	1
Delete account	1	3	3
Search field	4	3	3
Reset password	3	2	3
Update email	1	2	1
Notifications	2	3	2

1. Low
2. Medium
3. High
4. Highest

### 3.5 Effort estimation

Tasks	Time	Resources
Creation test cases	18 hours	2 Testers
Execution 1	16 hours	2 Testers
Execution 2	18 hours	2 Testers
Execution 3	2 hours 28 minutes	2 Testers
Requirements review	8 hours	2 Testers
Creation issues reports	17 hours	2 Testers

## 4. Test strategy:

### 4.1. Functional Testing

- Test all links and buttons to ensure they function as intended.
- Test form validation to ensure all required fields are validated.
- Test error handling to ensure errors are displayed correctly.

### 4.2. User Interface Testing

- Test the web application on different browsers to ensure the user interface is consistent.

### 4.3. Compatibility Testing

- Test the web application on different browsers to ensure compatibility.

### 4.4. Security Testing

- Test the web application for common security vulnerabilities such as cross-site scripting attacks and url manipulation.
- Test user authentication to ensure it is secure and cannot be bypassed.
- Test that the password cannot be copied and pasted to get the characters used

### 4.5. Usability Testing

- Test the web application with different user personas to ensure it is user-friendly.
- Test the web application to ensure it is accessible to users with disabilities.

### 4.6 Exploratory Testing

- Learn more about the software under test
- Identify workflows and navigability

- Know the expected behavior of the main functionalities
- General view of the application to be able to analyze the coverage that is planned to be carried out with the test cases

## 5. Test Schedule

The test schedule for this web application is as follows:

| Test design | Start Date: 13/02/2023 | End Date: 28/02/2023 |

| Test plan creation | Start Date: 15/02/2023 | End Date: 28/02/2023|

| Issues reporting | Start Date: 15/02/2023 | End Date: 28/02/2023 |

## 6. Test Deliverables

The following test deliverables will be provided:

- Test plan document
- Test cases document
- Test execution report
- Issues report

## 7. Risks and Assumptions

The following risks and assumptions have been identified for this test plan:

- Risk: Very tight time for testing
- Risk: Lack of user stories to guide the testing approach
- Risk: Changes in the test environment by the development team
- Assumption: Expected results are based more on the experience of the tester.
- Risk: Delayed communication

## 8. Bug Tracking

All issues were submitted to the backlog of Trello Dev's project with the "Bug" label.

<https://trello.com/b/LHAQ0Kai/imentor-board>

## 8.1. Bug Format

- Title
- Description
- Attachments
- Preconditions
- Reproduction steps
- Actual result
- Expected result
- Severity

## 8.2. Bug Classification

- High Severity - Defects that don't comply with the user story acceptance criteria or affect an important functionality.
- Medium Severity - Defects that result in a clear problem with the software, but there was no loss of data or crash associated with the problem.
- Low Severity - Defects that result in an average problem with the software or it affects a not so important functionality.

## 8.3. Bugs submitted

Card Number	Title
368	My Courses > A course is not published when the visibility of the course is "private"
369	Languages > The "+" button replaces the original language configured.
370	Languages > Not all the languages are displayed in the dropdown list when trying to add a new one
372	Profile > The "Studies" section only displays one study in the profile
373	The courses that have private visibility are displayed in the profile of the mentor.

374	Courses > A mentor can create a course without an email verification.
375	The profile photo is uploaded by clicking the "Crop" button.
376	There is no option to delete the profile photo.
377	My Course Requests> lmentor confirms that a requested course has been created but it is not created in the background because it has not been filled with enough characters in the "Who you are looking for" field
378	Balance> Payment methods> Paypal> When Paypal is selected as the payment method, a pop-up window opens saying "Sorry about that".
379	Balance> Payment method> There is nothing to select in the payment method dropdown
380	Balance> Payment method> An incorrect message is shown when selecting the default value of "Payment method"
381	The "Help" option does not redirect to any information.
382	Classroom >Edit class> Classroom time is changed 4 hours ahead
383	Mentors can rate themselves with stars in the first or second time a student's classroom is canceled.
384	Chats > The expand/collapse arrow does not execute any action when the chat is selected.
385	GeneralProfile> Clicking the "save changes" button refreshed the page twice.
386	HomePage> Subtitles recognize an interaction when the mouse hovers on them.
387	Student Profile> Can't verify email refreshing the page.
388	Chat > "Contact Support" button doesn't do anything.
389	StudentChat > Create Proposal > Main calendar doesn't allow to select days.
390	General Profile> "Date of birth" field accepts current dates.
391	View courses > In 'About this mentor' tab the star icons are not aligned.
392	Home Page > Magnifying glass icon on search field doesn't work.
393	Sign Up > An account can't be created with a password that contains special characters.

394	Home page > The Homepage loses its format when a resize is made to the window.
395	Sign in > Error message when trying to login with google account
396	Top Rated Mentors > View Profile > Clicking on one course of the mentor shows briefly the course page.
397	Profile > Languages don't stay marked after making a selection.
398	Publications > General Information > "Save changes" button is only enabled to save changes modifying all mandatory fields ""
399	Publications > General Information > "Cancel" button is only enabled to cancel changes modifying all mandatory fields ""
400	Publications > Pricing > Negative numbers are accepted in Hour(s) and Price fields of PACKAGE layout as Per hour option.
401	Publications > Pricing > Negative numbers are accepted in Price per hour field of BASE RATE layout.
402	Sign up > Data in the registration form not validating.
403	Sign in > There is no eye password icon to show the password.
404	Sing in > Forgot password doesn't validate the textfield.
406	Home Page > "Become a Mentor" should not be available without logging in.
405	Mentor Profile > clicking on the stars is the only way to get into another mentor's profile.
407	View Course > the user is redirected to the home page after refreshing the course or request course page.
408	Profile > Data on fields of general information and socials not validated.

## 8.4 Fixed bugs

- Search field not working



- Mentoring Dashboard > Is displayed an error message when clicking the "Save changes" button in Language and Location, Pricing and Fees and discounts tabs.

## **9. Test execution report**

### **9.1 First test execution**

The first test execution took place during the exploratory test.

Exploratory Test Report

Date: 14 February 2023

Objective: Perform an exploratory test of iMentor website. Identify the user persona for the web page, the roles that each one forms, interactions, and functionalities available to each role within the web.

Identify and know the interaction that the roles have and how they do it.

Test Description:

Tests were conducted on the website to evaluate its functionality and usability. For this, we used the four techniques listed in "Taking a tour through test country" by Michael Kelly.

The following areas were analyzed:

User Registration

User registration was performed as a mentor and student through the sign-up form. Registration was successfully completed, and a confirmation email was received. The registration process was quick and easy but in the registration process, problems such as the use of invalid data in specific fields were identified. There is a problem using facebook and google registration method, also both issues were reported.

Mentor account creation

An attempt was made to create a mentor account without filling out the required form, and multiple error messages were received indicating that the form needed to be completed to create a mentor account. When the form was completed, a mentor account could be created without any problems.

Mentor course creation

A mentor created a course. The course creation process was simple and intuitive. Content could be added, start and end dates for the course could be established,

and a price could be set. In addition, a course description could be added, and files could be uploaded. Once the course was created, it could be published and viewed.

#### Course request by the student

A course request was made by a student. The course request process was simple and intuitive. The desired course could be searched for, and a request could be sent to the mentor. In addition, a description of the reason for taking the course could be added. Once the request was sent, a confirmation notification was received.

#### Course access

The course could be accessed by both the mentor and the student without any problems. It was verified that the course content was presented correctly and that all sections of the course could be accessed.

#### Search field.

The search field was not working during the exploratory test, that issue was reported and then fixed.

#### Payment

During the exploratory test, the part of sending a proposal was tested but some issues were found and reported, for example, the use of negative values in the price.

#### Chat

A chat between a mentor and student was used to know how this feature works, a problem of large messages overflowing the chat area and blank messages were reported.

#### Conclusions:

Overall, the website appears to be functional and easy to use for both mentor and student roles. User account creation and course creation by the mentor are simple and intuitive processes. The course request by the student is also easy to perform. Overall, the system appears to be reliable and stable.

#### Recommendations:

It is recommended to improve the course search function, as it could be more precise and detailed. There were some problems during the course visualization that its recommended to be fixed so that students can review the information of each course.

## 9.2 Second execution

During the test case creation, a new test execution took part.

To be more specific, when creating the test cases to cover the main functionalities of the web and based on the criteria that we set for the execution of test cases, and to know the expected results as the basis of our heuristics.

In creating the test cases different techniques were used in specific areas and roles in iMentor.

Domain technique:

The domain technique was used to identify data, conditions and prerequisites that can affect the behavior of functions in iMentor.

- User registration and login: Test cases were created to verify if users can create accounts, log in and switch to the role of mentor. Also, the recovery password function was tested.
- Courses: Test cases using the mentor or student account as a condition. To create a course as a mentor and to request a course as a student.
- Search field: In this part, test cases were created to see if the searches met the search criteria to facilitate the search for courses within iMentor.
- API: API was something new for us but we focus on parts that in our opinion will be more used such as account creation, log in using credentials, course searches, publications by mentors, and course requests by students.

Combination technique:

- API: Use of different methods to do a request to an endpoint to observe the response, if it is the expected.
- Functions: functions like profile per role, and the UI per role.
- Courses: Test, if a mentor can contact a student through a course request or if a student can contact a mentor through a published course
- User registration and login: Test cases were created to verify if special or numerical characters can be used as a name or last name, or a phone number made of only letters.
- Profile: There are fields where the combinatory technique was applied to test if the social links can validate each URL if it belongs to the domain.

## 9.3 Third execution

Test Cases Execution Report for iMentor

Date of Execution: 17/02/2023 - 21/02/2023

Browser Environment: Chrome, Firefox, and Edge

Total Number of Test Cases: 152

Summary:

Test Cases Executed: 149 (98%)

Test Cases Passed: 131 (92%)

Test Cases Failed: 15 (5%)

Test Cases Not Executed: 3 (2%)

Test Cases Under Review: 3 (1%)

#### Details:

During the execution of 140 test cases on iMentor web application, 137 test cases were successfully executed, which is 98% of the total test cases. Out of these, 127 test cases passed successfully, while 7 test cases failed to meet the expected results. Additionally, 3 test cases were not executed and 3 test cases are currently under review for updates.

The majority of the test cases were executed on Chrome, followed by Firefox and Edge. All three browsers had similar pass/fail ratios.

#### Failed Test Cases:

The following are the test cases that failed during the execution:

General Profile > Verify that language selection can not be saved without any language.

Professional Profile > Skills > Verify that the Name field doesn't allow to save only specials characters.

Professional Profile > Work Experience > Verify if Start Date doesnt accept a future date.

General Profile > Settings > Verify that an account can be hard deleted.

Professional Profile > Work Experience > Verify if Start Date doesnt accept a future date.

General Profile > Verify that languages stay marked in the languages selection.

#### Not Executed Test Cases:

The following test cases were not executed:

Verify that Base rates' Price per hour field doesn't accept alphabetical characters in a Publication.

Verify that Base rates' Price per hour field doesn't accept negative numbers in a Publication.

#### Test Cases Under Review:

The following test cases are currently under review for updates:

Home page > Search results

## 9.4 Conclusion:

Overall, the execution of test cases on iMentor was successful with a pass rate of 92%. The failed test cases will be reviewed and addressed in the upcoming releases. The test cases under review will be updated and executed in the next testing cycle.

It can be verified that the main functionalities, the navigation flows by role, the characteristics that each role has, and the characteristics that are shared and used to interact between the roles, are working as expected.

## 10. Conclusion

This test plan outlines the testing process for the web application iMentor. By following this plan, we can ensure the web application is thoroughly tested and meets all requirements.

The main functionalities were tested, from the login, user registration, account creation, and switching to the mentor role, as well as the visualization of different courses, mentors, and course requests.

However, during the testing process, the testing environment was modified, which caused certain bug reports to be inconclusive. Bugs needed to be isolated or the tests had to be modified and updated to cover functionalities that were implemented but were not previously considered.

One issue was that the team lacked sufficient experience to test APIs, which resulted in less elaborate or complicated tests being created.