

A3: User Interface Prototype

SegFault is a collaborative platform for programmers to learn, discuss different approaches, present ideas and share knowledge in a Q&A style.

To this end, the following sections provide detailed insight into the project, featuring storyboards for common uses of the site, and an overview of all interfaces.

1. Interface and common features

The user interface of the *SegFault* platform is a set of web pages made using the latest standards: HTML5, Javascript, CSS3. For faster development Bootstrap was used.

The platform is based on a responsive design, that is capable of being adapted to screens of different sizes and resolution without losing functionality.

The principal functionality of our platform are the questions of our users and the fast access to them. Because of that, our main page contain in their majority a preview of some questions of the users.

A navigation bar has been implemented that allows for various interactions with the user, depending on whether the user is authenticated or not;

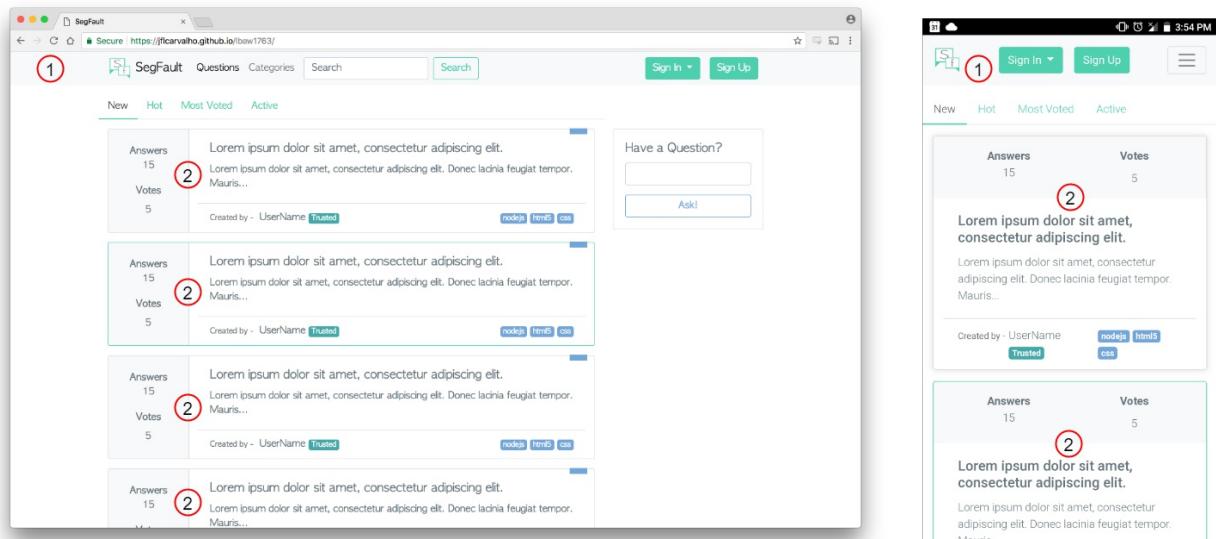


Figure 1.a: Main Interface.

1. NavBar;
2. Preview of Questions;

Besides that the answer to the question is very important, so in order to be easier to the user to see that, we develop for each question an individual page.

With more emphasis, in each question page the user can see the full description of the question and also some information about the author of the question and how many votes the question have.

Following the description it will appear all the answers to the question. If one answer was marked as correct it will appear first.

Each question our answer can be commented. All last tree can be voted in order to present first the better content and give reputation to the users. This privileges is just for the authenticated users.

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Figure 1.b: Question Interface.

1. NavBar;
2. Full description of the question;
3. Answers to the question;
4. Comments;

2. Sitemap

This sitemap presents the overall structure of the web application.

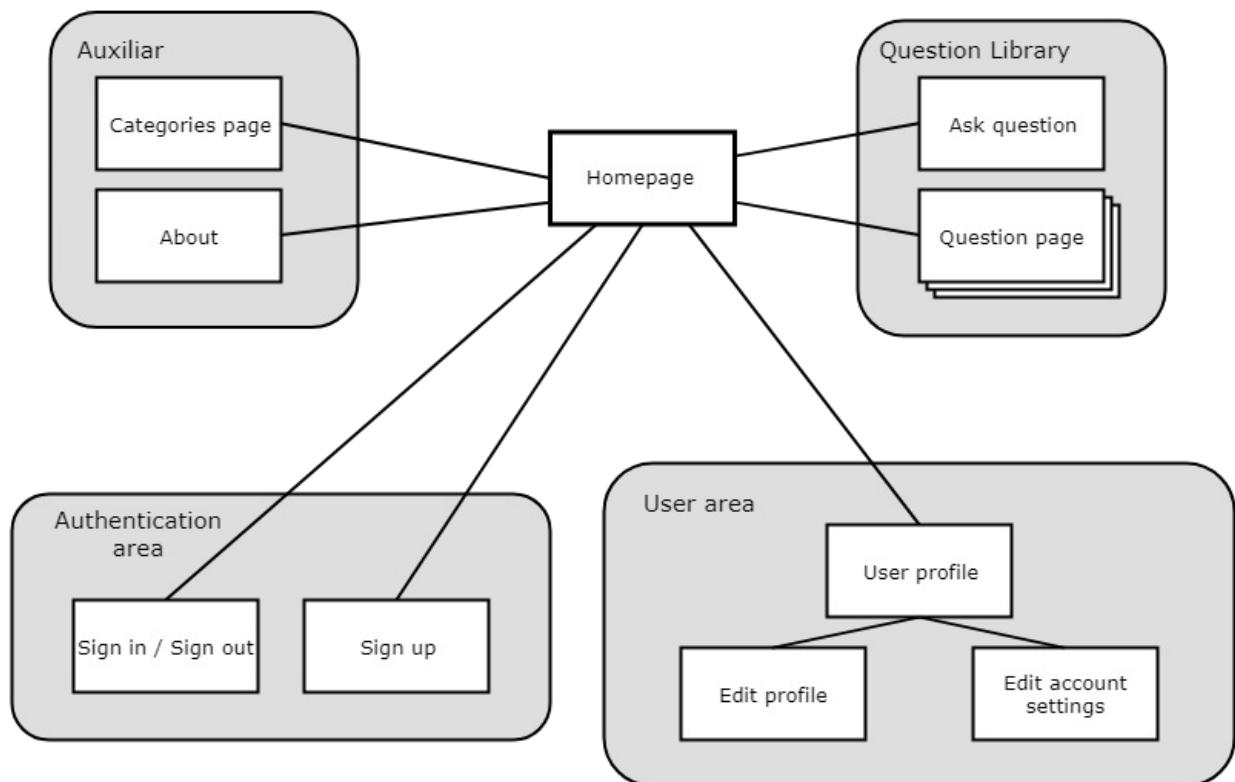


Figure 2.a: Sitemap.

3. Storyboards

This section displays step-by-step illustrations of the main use cases of the system.

Sign up

The screenshot shows the SegFault homepage. At the top right, there are 'Sign In' and 'Sign Up' buttons. The 'Sign Up' button is highlighted with a red box and a circled number '1'. Below the navigation bar, there are tabs for 'New', 'Hot', 'Most Voted', and 'Active'. A search bar is also present. On the left, there's a sidebar with a 'Have a Question?' section containing a text input field and a blue 'Ask!' button. The main content area displays four post cards. Each card includes a summary table with 'Answers' (15), 'Votes' (5), and a 'Created by - UserName Trusted' section. The post content is placeholder text: 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. ...'. Below the cards, there's a 'More' link.

The screenshot shows the SegFault sign-up page. The background features a blurred image of a yellow taxi cab with luggage on top. The main heading is 'Don't be left out! Join our ever-growing user base.' To the right, there's a sign-up form with a red box and circled number '2' around it. The form fields include 'Username' (placeholder: 'Your username here'), 'Email address' (placeholder: 'Your email here'), and two 'Password' fields. Below the form, a note says 'We'll never share your email with anyone else.' Step 3 is indicated by a circled number '3' next to a checkbox labeled 'accept the terms and conditions.' Step 4 is indicated by a circled number '4' next to a large green 'Sign up for SegFault' button.

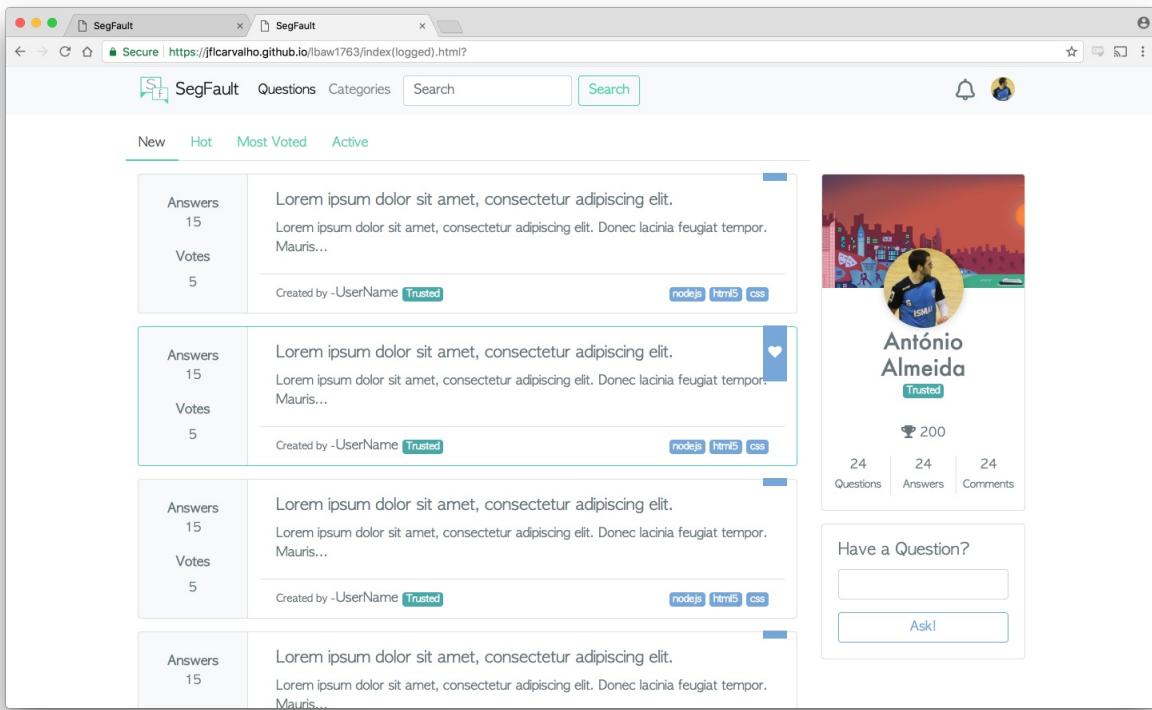
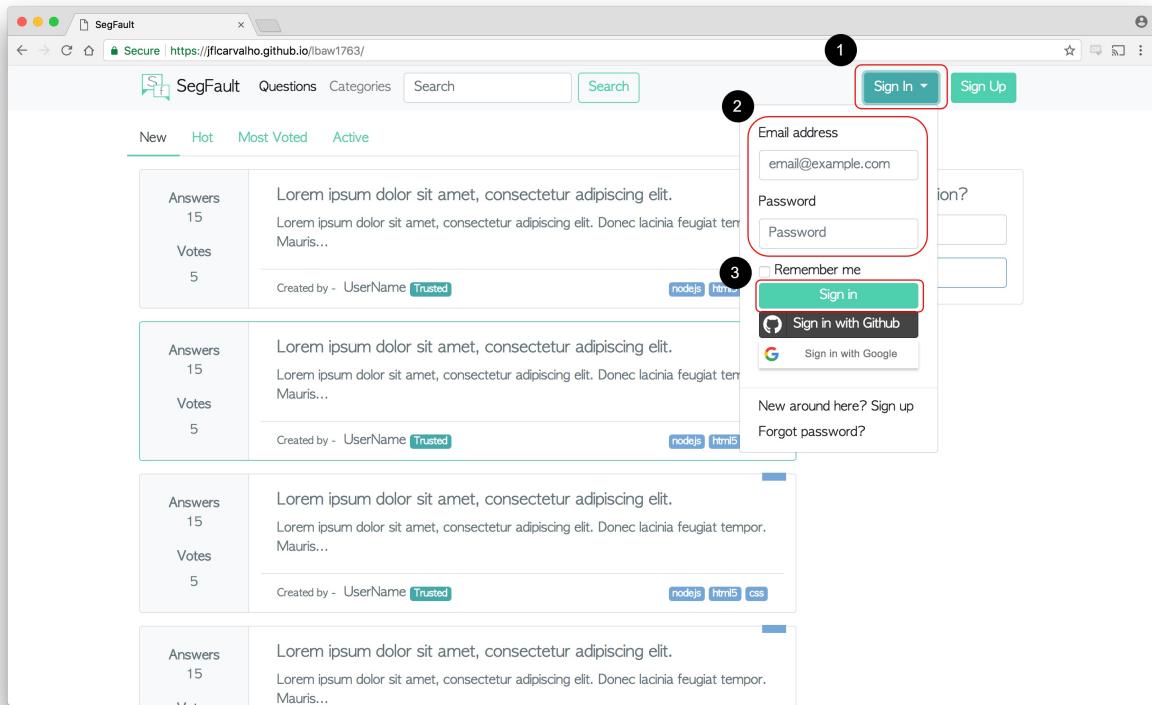


Figure 3.a: While visiting the website, to sign up you can click the "Sign up" button (1), which will redirect you to the "Sign up page" where you'll enter your personal credentials (2), accept our terms and conditions by checking the checkbox (3) and finally clicking "Sign up for SegFault" (4).

Sign in



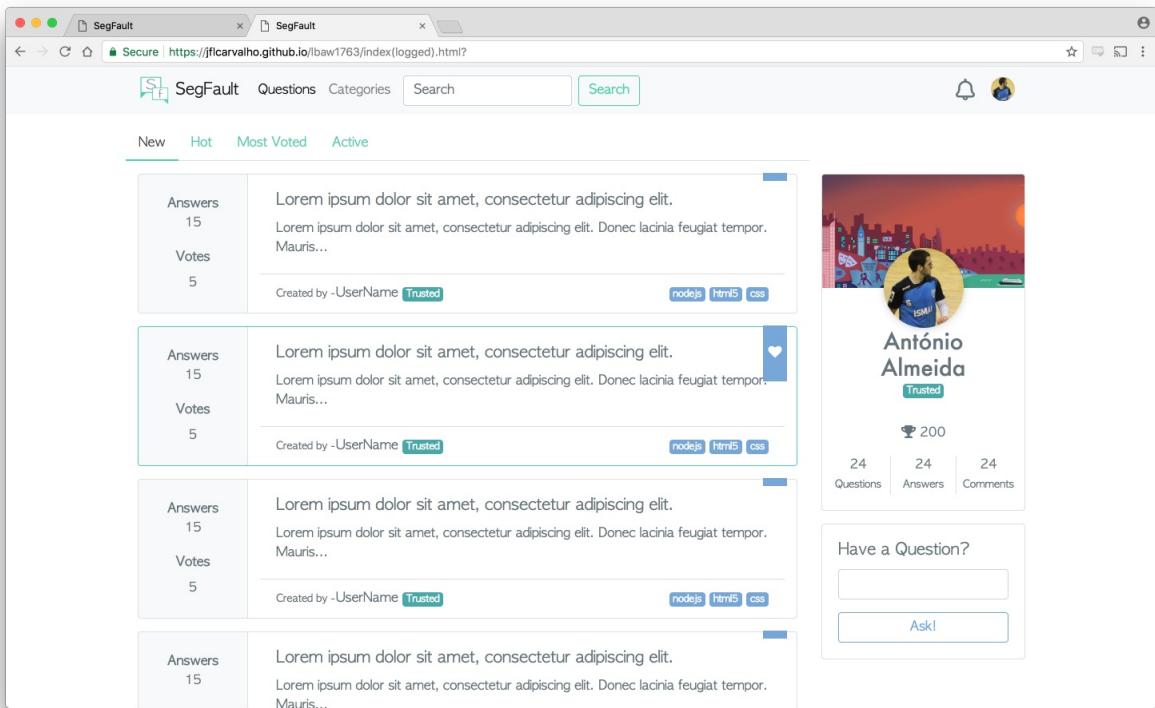
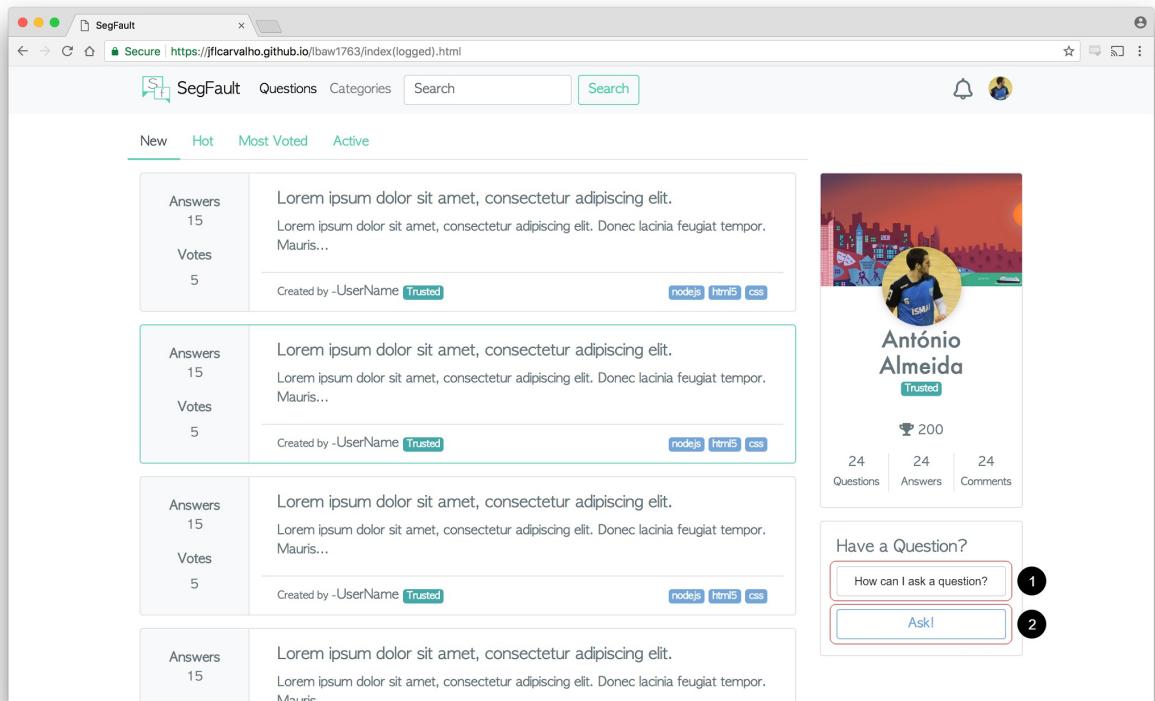
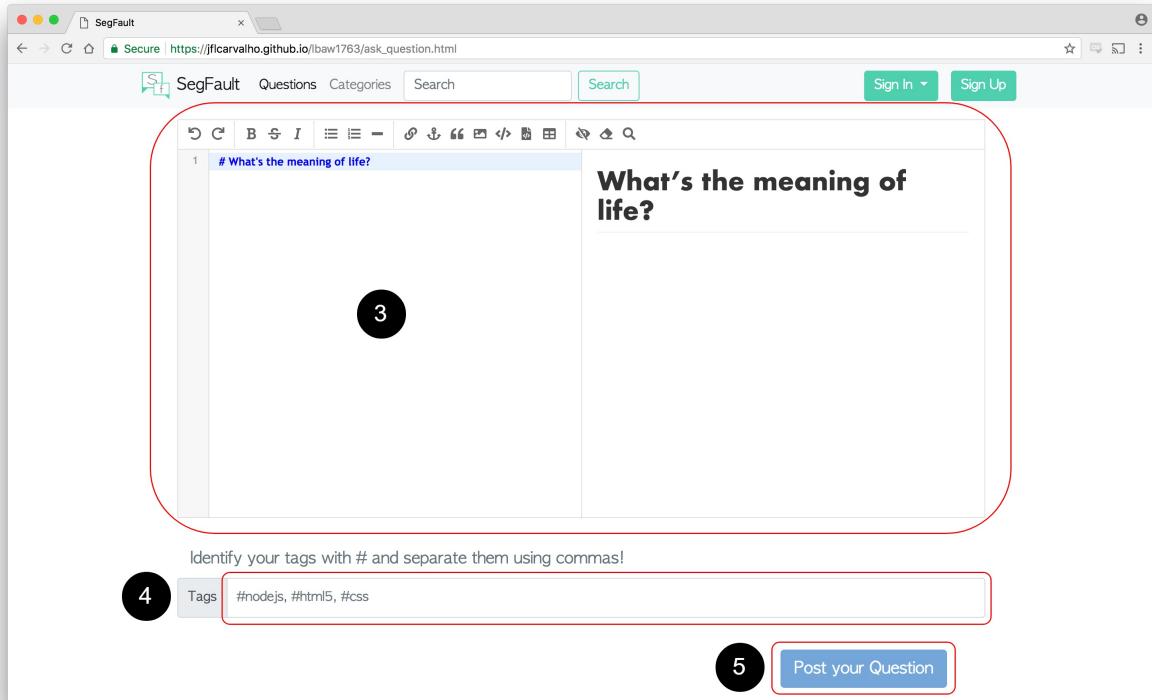


Figure 3.b: While visiting the website, to sign in you can click the "Sign in" button (1), then you'll be shown a dropdown where you'll have to fill your credentials (2) and finally enter them by clicking "Sign in" (3).

Ask a question





1 Etiam semper lacus eu dolor dictum, a dictum odio laoreet. Praesent luctus hendrerit dapibus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Vestibulum dapibus leo id neque consequat placerat. Edited

2 Etiam semper lacus eu dolor dictum, a dictum odio laoreet. Praesent luctus hendrerit dapibus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Vestibulum dapibus leo id neque consequat placerat. Edited

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Figure 3.c: While logged in, to ask a question you must enter your question title (1) - which can later be modified -, click the "Ask!" button on (2) the landing page and you'll be redirected to the "ask question page". There you'll write your question on the text area (3), the related tags (4) and then submit it by clicking on the "Post your question" button (5).

Answer a question

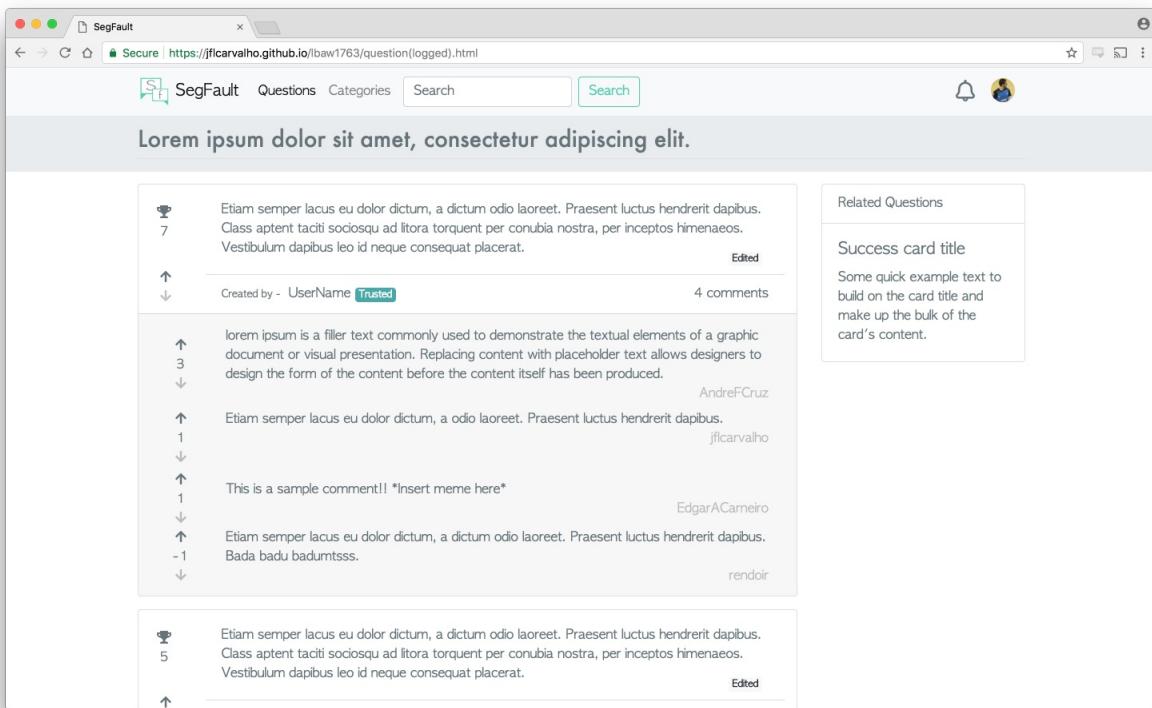
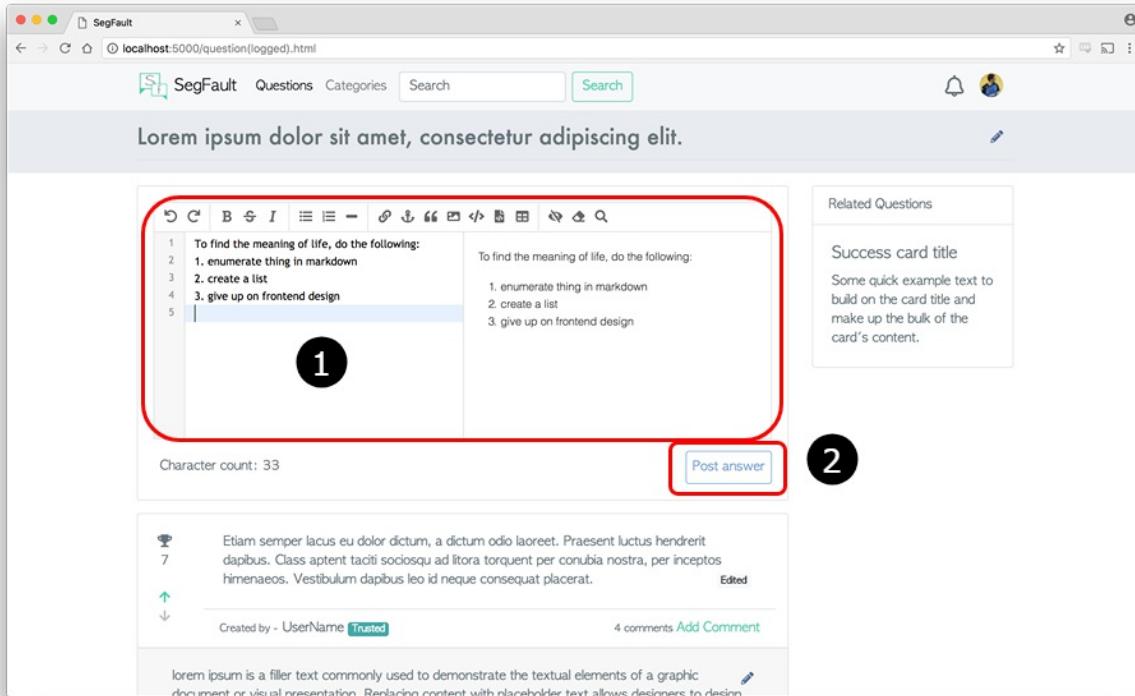


Figure 3.d: While logged in, to answer a question you must write your answer on the text area (1) and then submit your answer by clicking on the "Post answer" button (2).

Add a comment

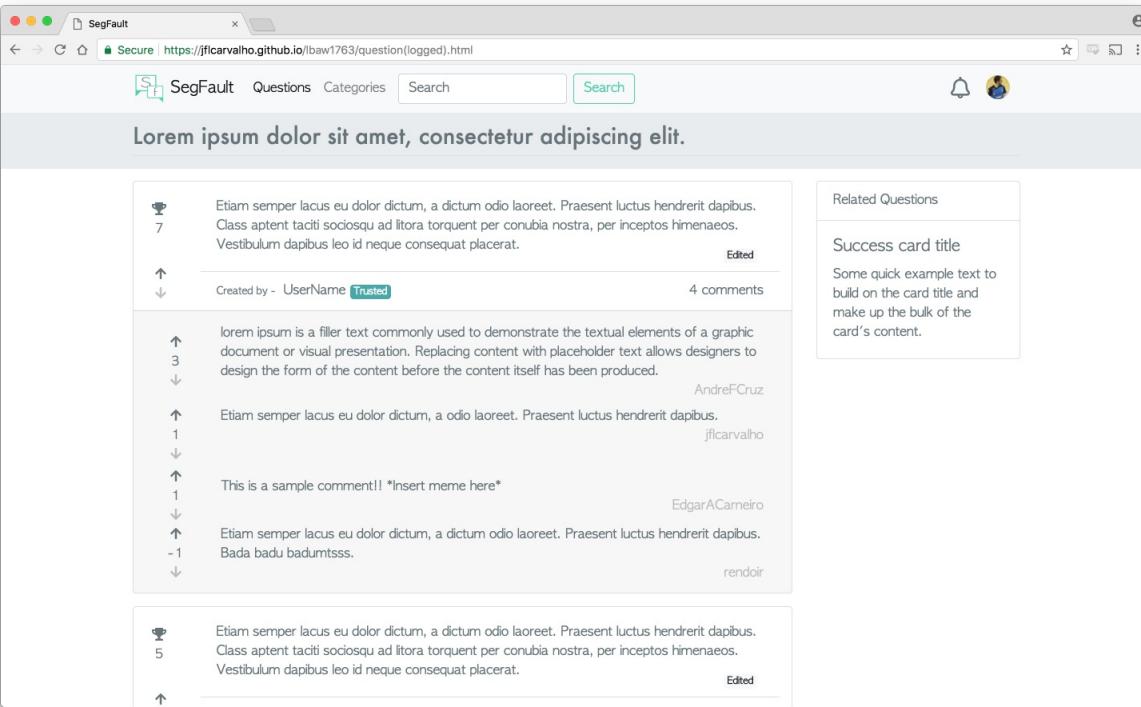
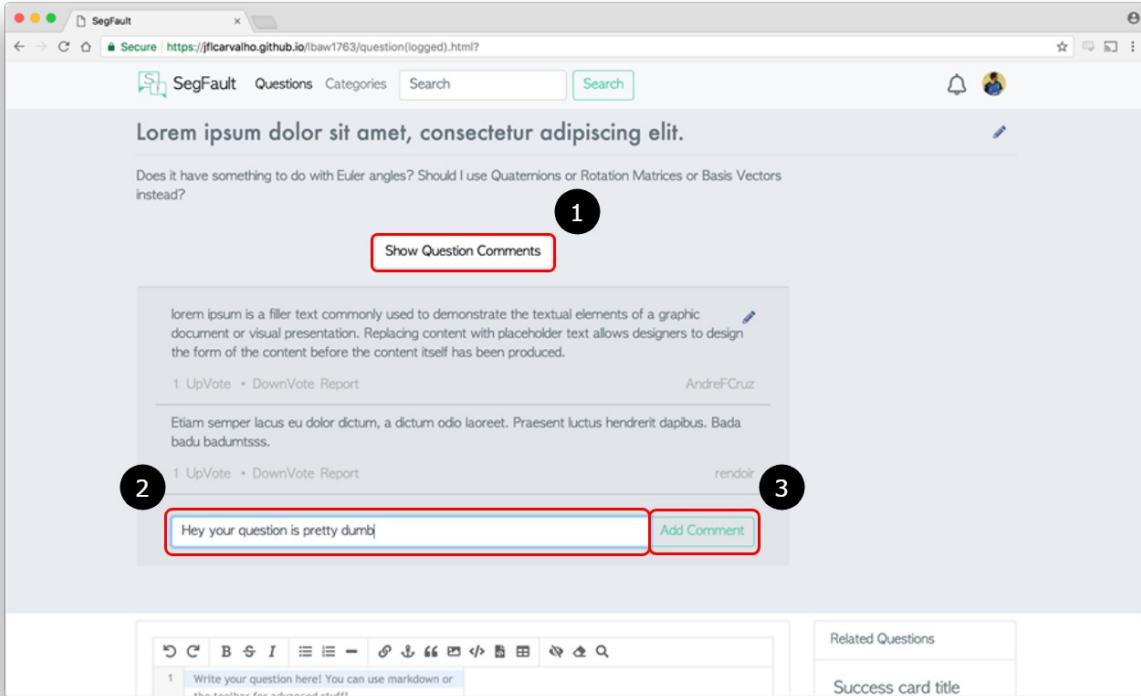


Figure 3.e: While logged in, to add a comment (to a question, for example) you should click the button that shows the comments to that message (1), then you'll be shown a text area where you can write your comment (2) and finally you can submit it by clicking on the "Add comment" button (3).

Check profile

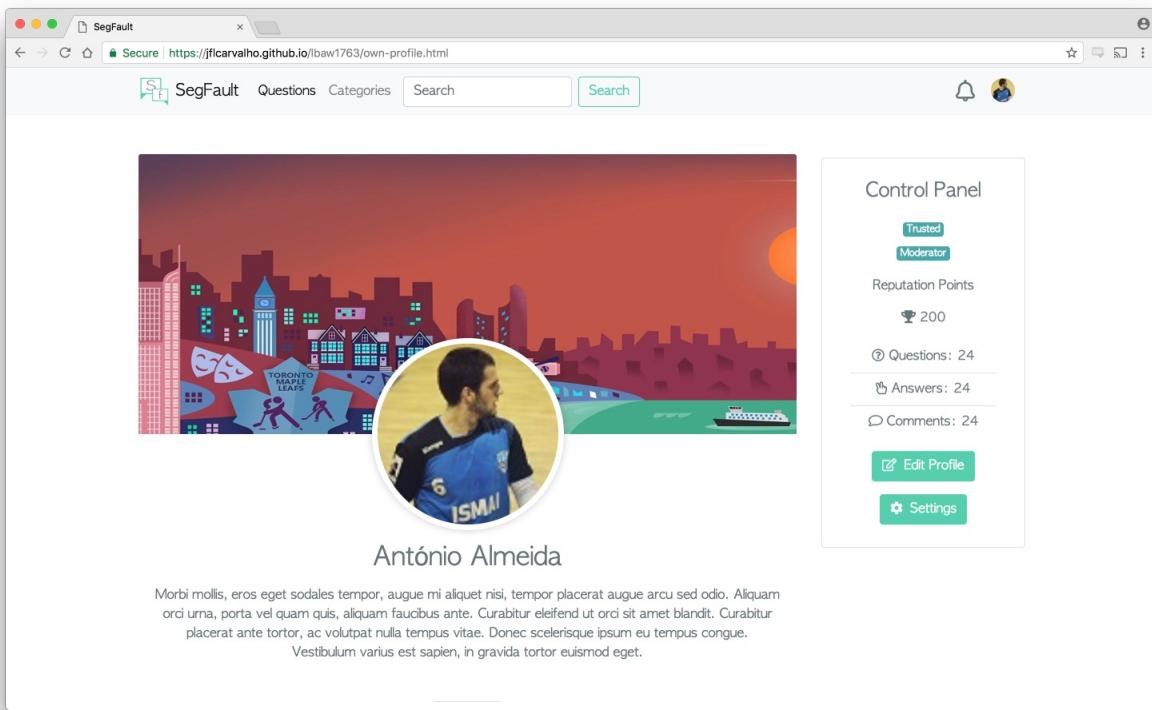
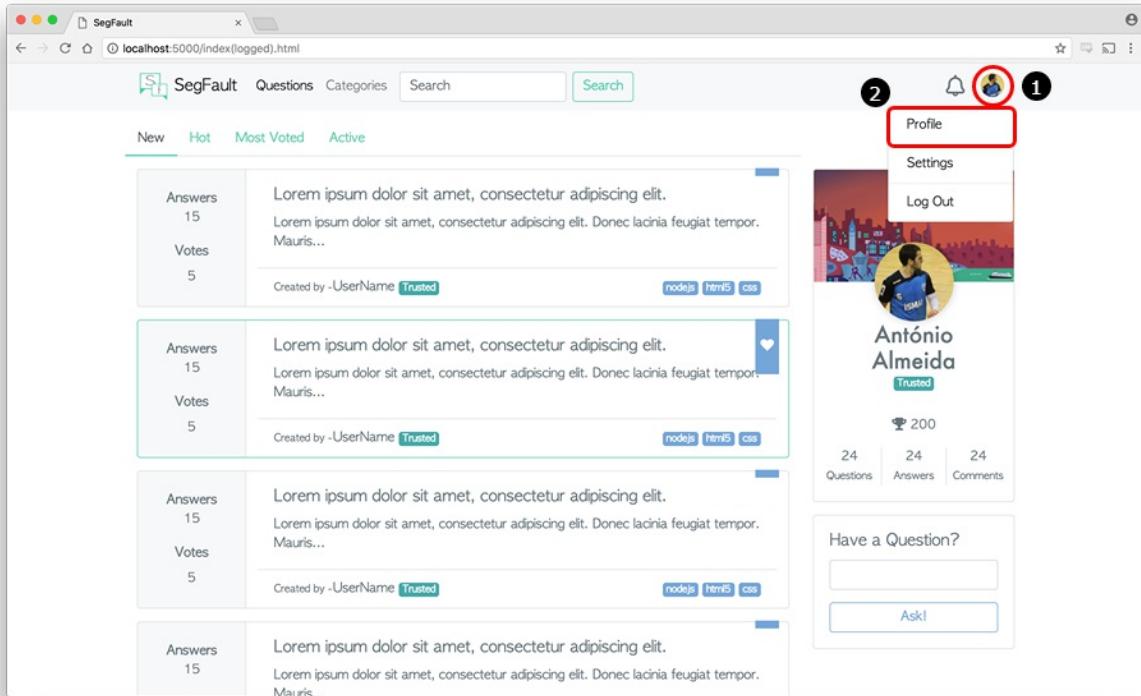


Figure 3.f: To check your profile click on your profile thumbnail (1), then you'll be shown a dropdown where you'll have to click on the "Profile" option (2).

Question page of an owner

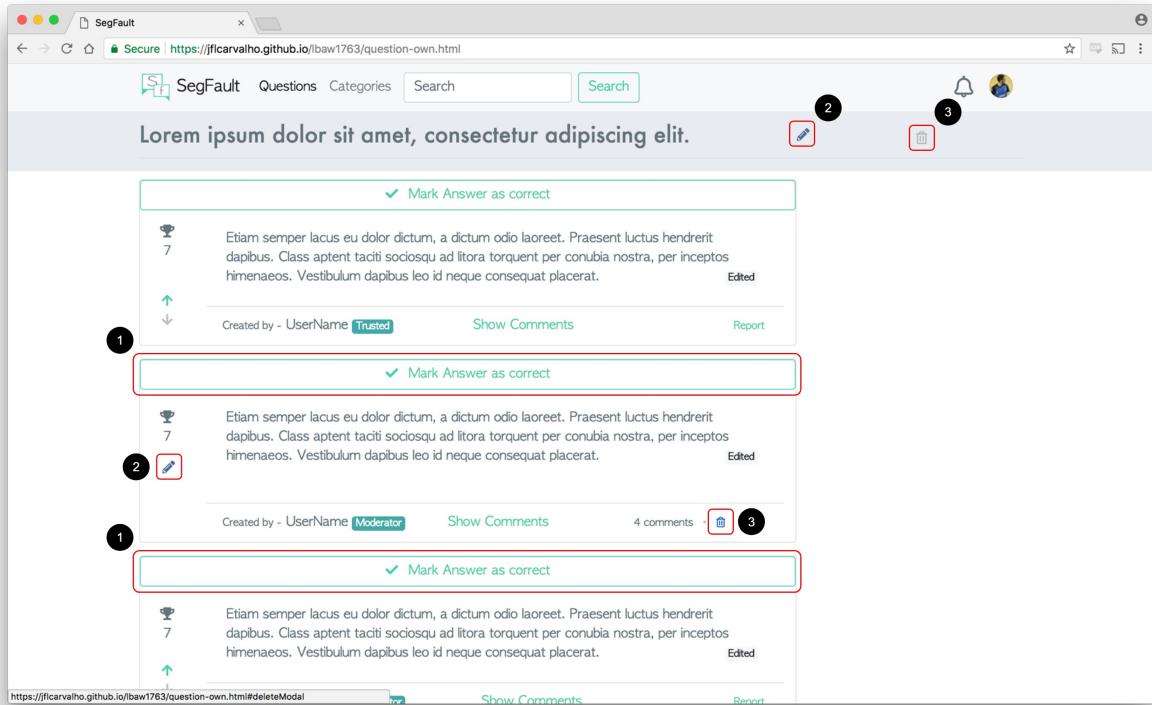


Figure 3.g: As an owner of a question you can mark an answer as correct (1), edit (2) or delete (3) any of your messages. Owner page [here](#).

Question page of a moderator

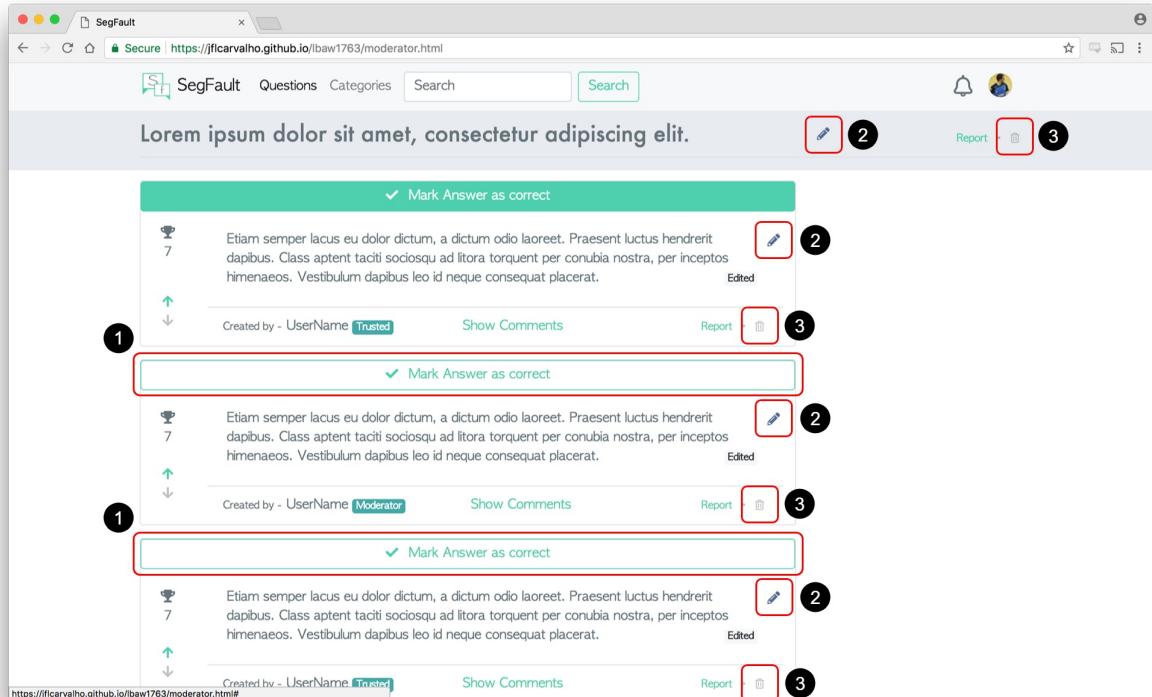


Figure 3.h: As a moderator you can mark an answer as correct for a given question (1), edit (2) or delete (3) any message. Moderator page [here](#).

Sign out

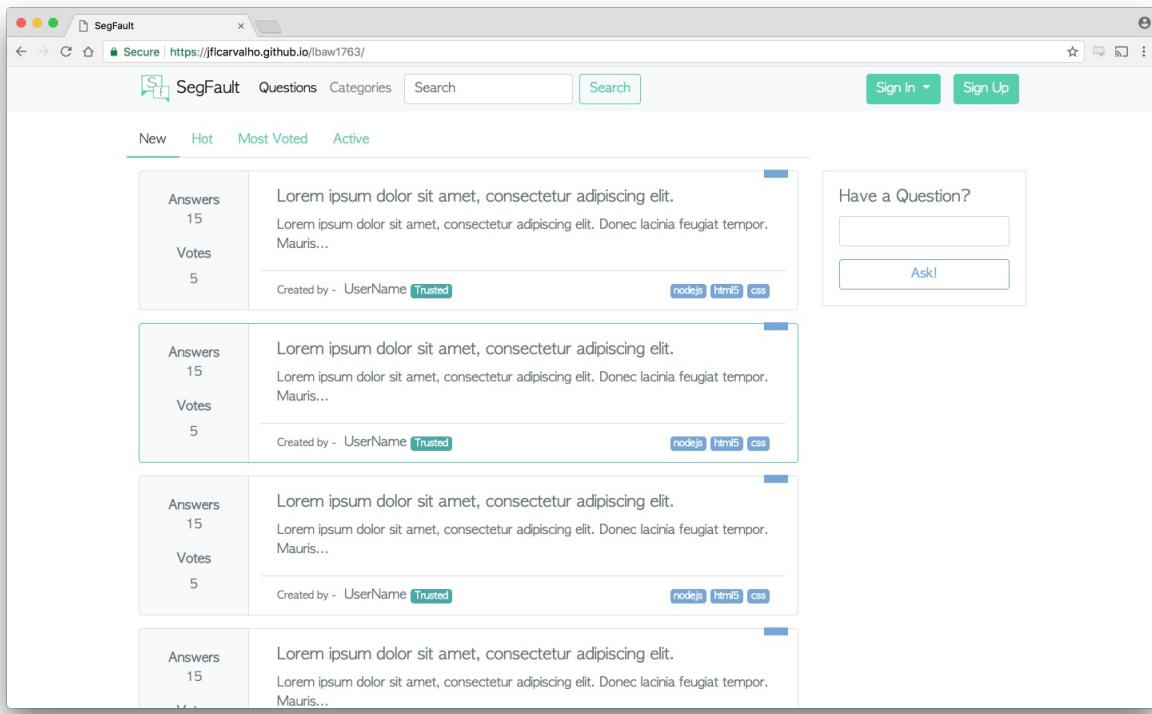
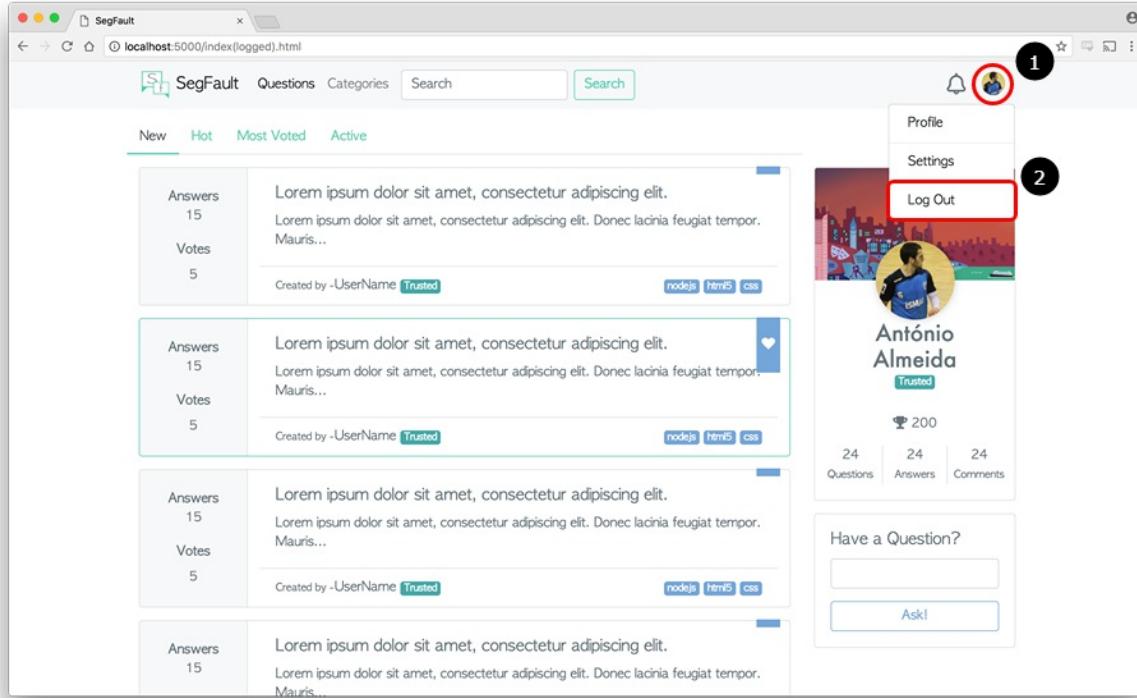


Figure 3.i: To log out you have to click on your profile thumbnail (1), then you'll be shown a dropdown where you'll have to click on the "Log out" option (2).

4. Interfaces

The following interfaces describe the main content of the web pages and their relative priority and help the project team previewing the features and behaviour of the final product's different screens, both their desktop (left) and mobile (right) versions.

UI01: Home

On the [home page](#), the user can view several questions to his choosing, their title, score, number of answers, and a short introduction. The user can also bookmark a question for ease of access. As customary, the user can search for a specific question using the *nav-bar*.

Additionally, an authenticated user can ask a new question: after introducing the title and clicking the "Ask!" button the user is redirected to the [question editing page](#). If a visitor (non-authenticated user) clicks the "Ask!" button, a "Sign-In" prompt appears.

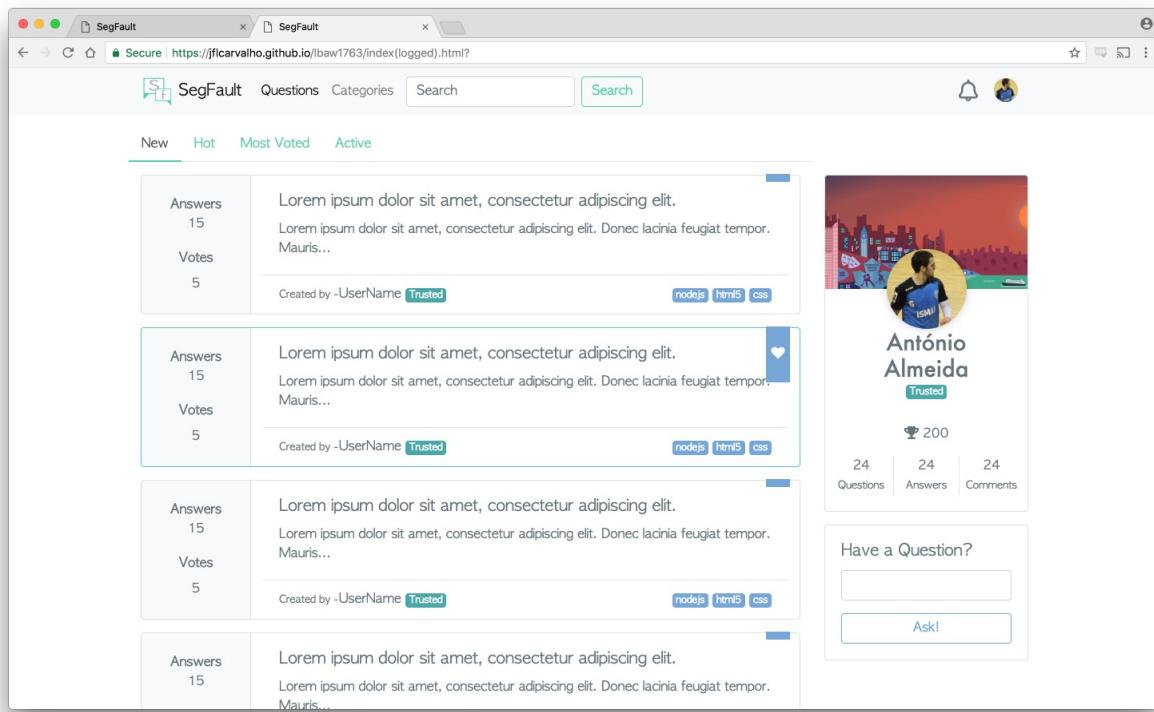


Figure 4.a: [Home page](#).

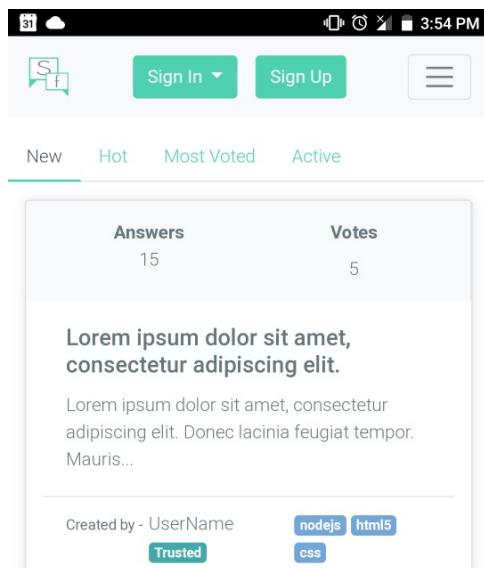


Figure 4.b: Home page, on mobile.

UI02: About

The [about page](#) informs the user of the purpose of the site, as well as the team behind it. Additionally, the user can navigate to the developers' *SegFault* profiles by clicking on them.

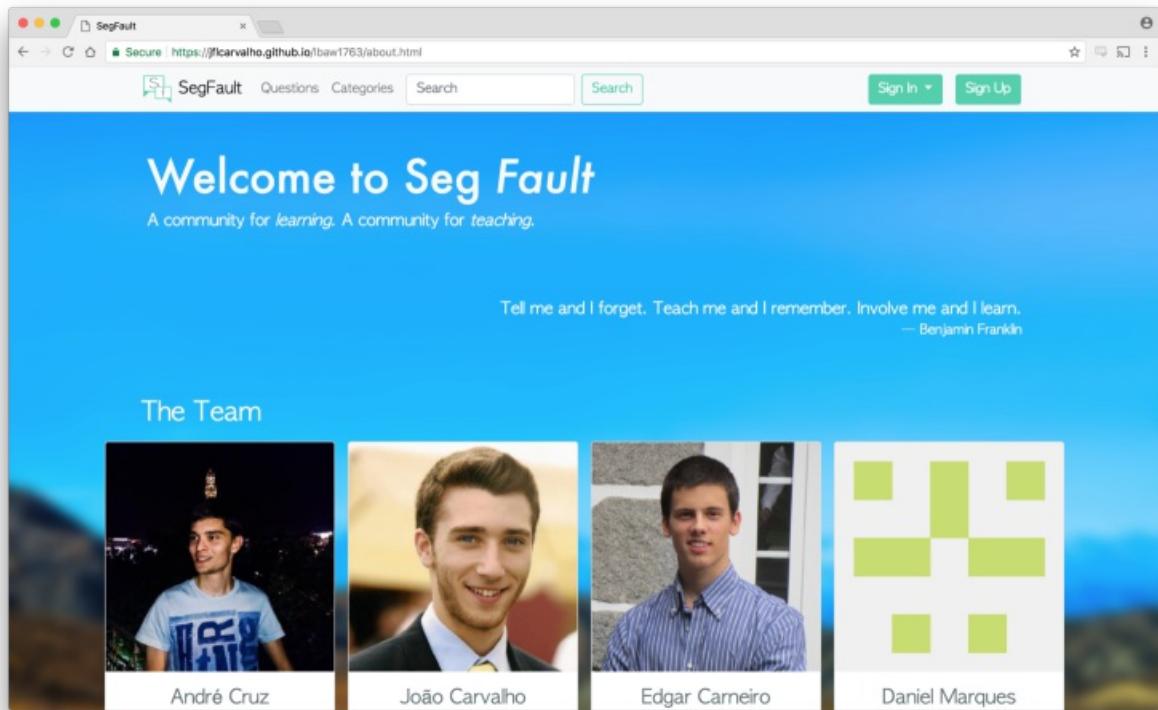


Figure 5.a: [About](#) page.



Figure 5.b: About page, on mobile.

UI03: Question

The question page allows a user to see the full description of a question, as well as its answers and comments. An authenticated user can vote on a question, answer or comment, or report any of these.

The screenshot shows a web browser window for the SegFault platform. The URL is [https://jfcarvalho.github.io/lbaw1763/question\(logged\).html](https://jfcarvalho.github.io/lbaw1763/question(logged).html). The main content is a question titled "Lorem ipsum dolor sit amet, consectetur adipiscing elit." It contains a snippet of C# code for camera rotation:

```

1. void Update() {
2.     float speed = lookSpeed * Time.deltaTime;
3.
4.     // Yaw around the y axis using the player's horizontal input.
5.     transform.Rotate(0f, Input.GetAxis("Horizontal") * speed, 0f);
6.
7.     // Pitch around the x axis using the player's vertical input.
8.     transform.Rotate(-Input.GetAxis("Vertical") * speed, 0f, 0f);
9. }

```

Below the code is a small image of a green grassy field with a blue crosshair icon. To the right, there are statistics: "Answers: 15" and "Votes: 5". Below the image, a note says: "And it mostly works, but over time the view starts to get crooked. The camera seems to be turning on its roll axis (z) even though we only told it to rotate on the x and y!"

The sidebar on the right shows the question was created by "UserName" (trusted), and includes tags: nodejs, html5, css. A "Related Questions" sidebar lists "Success card title" and "Some quick example text to".

Figure 6.a: Question page.

This screenshot shows the same question page after scrolling down. The main content area now displays several comments:

- A comment from "UserName" (trusted) with 7 upvotes, reading: "Etiam semper lacus eu dolor dictum, a dictum odio laoreet. Praesent luctus hendrerit dapibus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Vestibulum dapibus leo id neque consequat placerat." It has an "Edited" status.
- A comment from "AndreFCruz" with 1 upvote, reading: "lorem ipsum is a filler text commonly used to demonstrate the textual elements of a graphic document or visual presentation. Replacing content with placeholder text allows designers to design the form of the content before the content itself has been produced."
- A comment from "jfcarvalho" with 1 upvote, reading: "Etiam semper lacus eu dolor dictum, a odio laoreet. Praesent luctus hendrerit dapibus."
- A sample comment: "This is a sample comment!! *Insert meme here*"
- A comment from "EdgarACarneiro" with 1 upvote, reading: "Etiam semper lacus eu dolor dictum, a dictum odio laoreet. Praesent luctus hendrerit dapibus. Bada badu badumtsss."
- A comment from "rendoir" with 1 upvote, reading: "Etiam semper lacus eu dolor dictum, a dictum odio laoreet. Praesent luctus hendrerit dapibus."

The sidebar on the right remains the same as in Figure 6.a.

Figure 6.b: Question page, scrolled down.

Let's say we're making a first-person camera. The basic idea is it should yaw to look left & right, and pitch to look up & down. So we write a bit of code like this (using Unity as an example):

```
void Update() {
    float speed = lookSpeed * Time.deltaTime

    // Yaw around the y axis using the player's input
    transform.Rotate(0f, Input.GetAxis("Horizontal"), 0f)

    // Pitch around the x axis using the player's input
    transform.Rotate(-Input.GetAxis("Vertical"), 0f, 0f)
}
```

or maybe

```
1. // Construct a quaternion or a matrix representing the desired rotation
2. Quaternion rotation = Quaternion.Euler(
    -Input.GetAxis("Vertical") * speed,
    Input.GetAxis("Horizontal") * speed,
    0f)
```

Figure 6.c: Question page, on mobile.

Etiam semper lacus eu dolor dictum, a dictum odio laoreet. Praesent luctus hendrerit dapibus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos.

Vestibulum dapibus leo id neque consequat placerat.

Created by - UserName [Show](#) [Report](#)
[Comments](#) [Trusted](#)

Etiam semper lacus eu dolor dictum, a dictum odio laoreet. Praesent luctus hendrerit dapibus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos.

Vestibulum dapibus leo id neque consequat placerat.

Figure 6.d: Question page, on mobile, scrolled down.

In addition, the owner of a question can accept an answer as correct, edit the question's description and categories, and/or delete it (owner view seen in Figure 6.e).

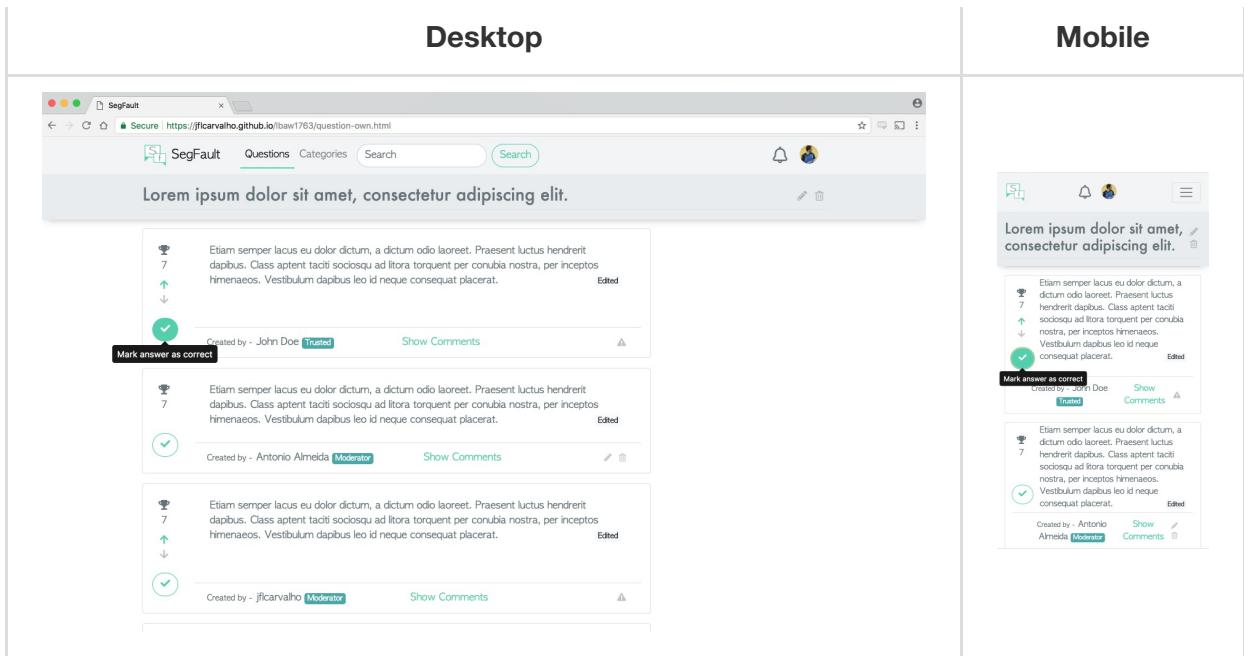


Figure 6.e: Question page, owner view.

UI04: Ask a Question

This page allows an authenticated user to ask a question. The description can be designed with markdown, and features code syntax highlighting. The user can also add tags to a question.

Note that the title may already be filled in if the user was redirected from the main page's "Ask!" button.

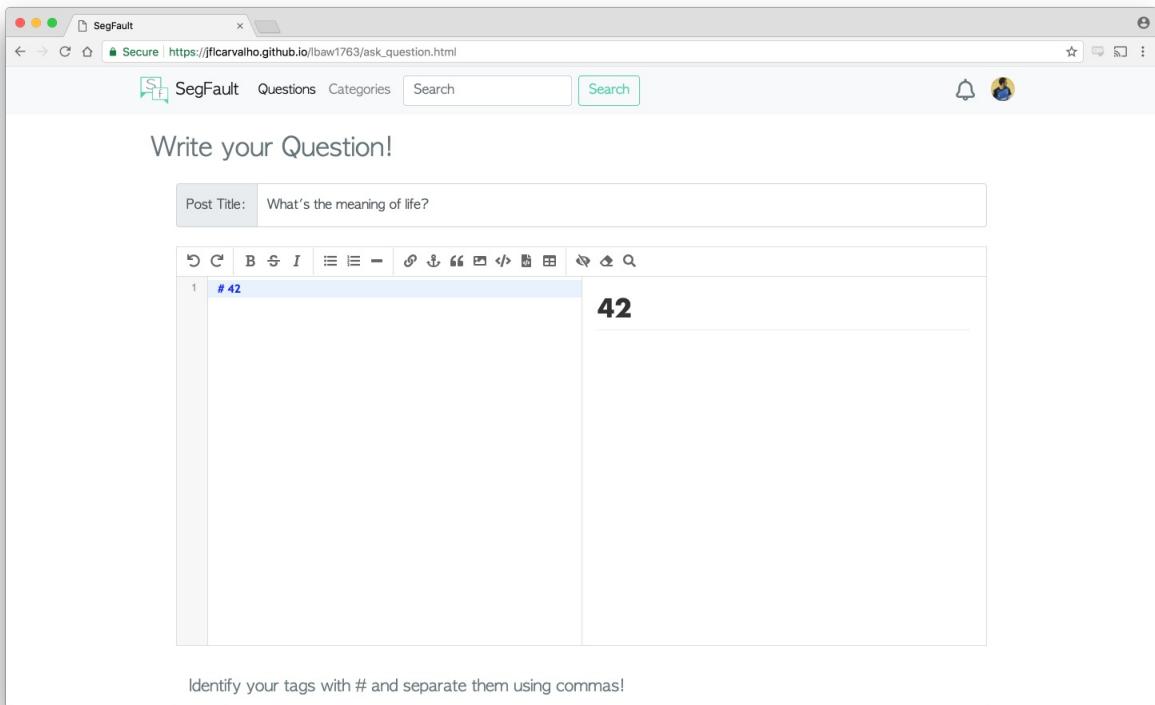


Figure 7.a: Ask question page.

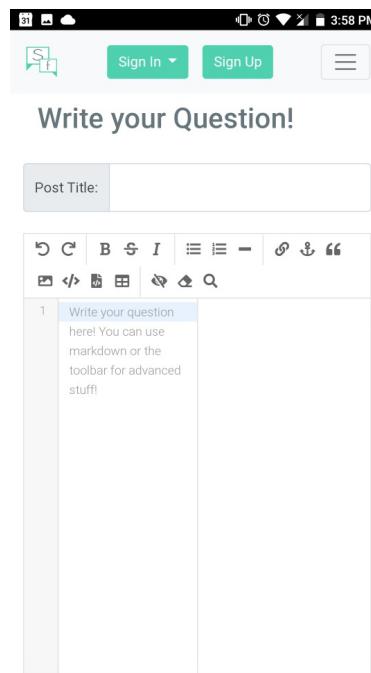


Figure 7.b: Ask/Edit question page, on mobile.

UI05: Profile

A user's [profile page](#) features its contributions to the *SegFault* community, from comments, answers and questions posted, to its overall reputation and badges earned. The owner of a profile can change its profile picture and the short *bio*.

A screenshot of a web browser displaying a user profile page. The header shows the site name "SegFault" and a search bar. The main content area features a large circular profile picture of a man in a blue shirt with "ISMAIL" on it, set against a background of a city skyline at sunset. Below the picture is the name "António Almeida". A text block follows, containing placeholder text: "Morbi mollis, eros eget sodales tempor, augue mi aliquet nisi, tempor placerat augue arcu sed odio. Aliquam orci urna, porta vel quam quis, aliquam faucibus ante. Curabitur eleifend ut orci sit amet blandit. Curabitur placerat ante tortor, ac volutpat nulla tempus vitae. Donec scelerisque ipsum eu tempus congue. Vestibulum varius est sapien, in gravida tortor euismod eget." To the right is a "Control Panel" sidebar with sections for Reputation Points (200), Questions (24), Answers (24), and Comments (24), along with "Edit Profile" and "Settings" buttons.

Figure 8.a: A user's own profile page.

A screenshot of the same user profile page as in Figure 8.a, but with the content area scrolled down. The "My Activity" section is now visible, showing three collapsed items. Each item contains placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec lacinia feugiat tempor. Mauris...". The rest of the page, including the sidebar, remains the same as in Figure 8.a.

Figure 8.b: A user's own profile page, scrolled down.

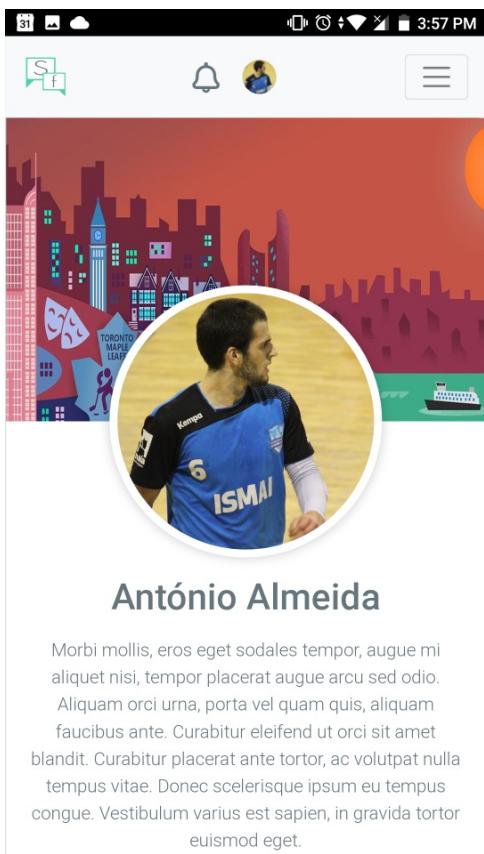


Figure 8.c: Profile page, on mobile.

A screenshot of the same mobile application interface, but the profile picture and name are no longer visible. Instead, the screen shows a section titled 'My Activity' in bold. Below this are three tabs: 'Questions' (underlined), 'Answers', and 'Comments'. Under the 'Questions' tab, there is a heading 'Marked Questions' followed by two items. Each item has a title and a brief description. The first item's title is 'Lorem ipsum dolor sit amet, consectetur adipiscing elit.' and its description is 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec lacinia feugiat tempor. Mauris...'. The second item's title is also 'Lorem ipsum dolor sit amet, consectetur adipiscing elit.' and its description is 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec lacinia feugiat tempor. Mauris...'. The entire 'My Activity' section is enclosed in a light gray rounded rectangle.

Figure 8.d: Profile page, on mobile, scrolled down.

UI06: Sign Up

The [sign up page](#) allows users to register on *SegFault*.

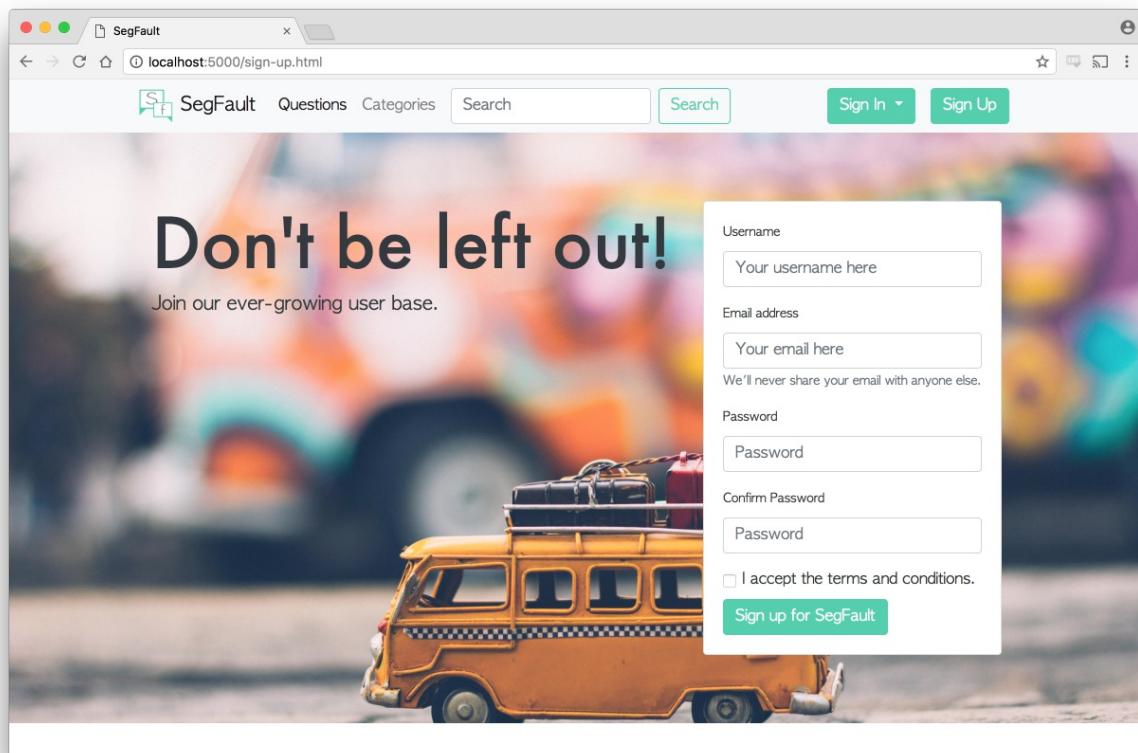


Figure 9.a: [Sign Up page](#).

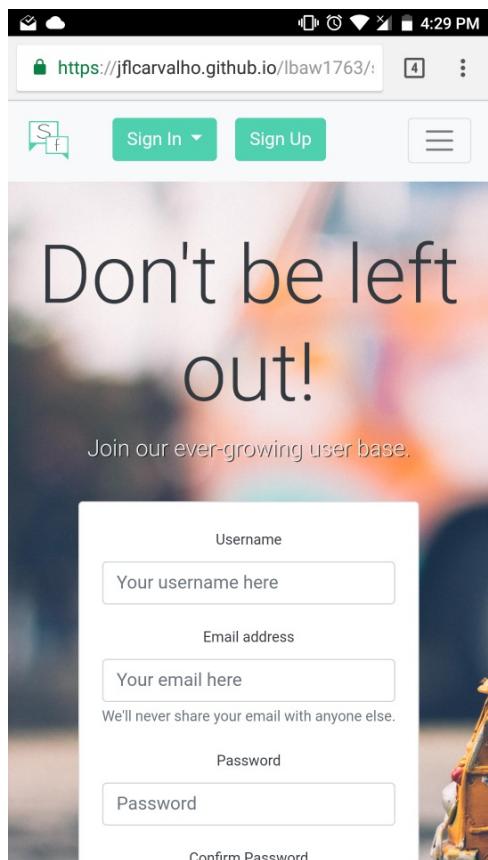


Figure 9.b: Sign Up page, on mobile.

UI08: Error

The [error page](#) informs the user that the server has *segfaulted*, and thus cannot visit the page he was looking for.

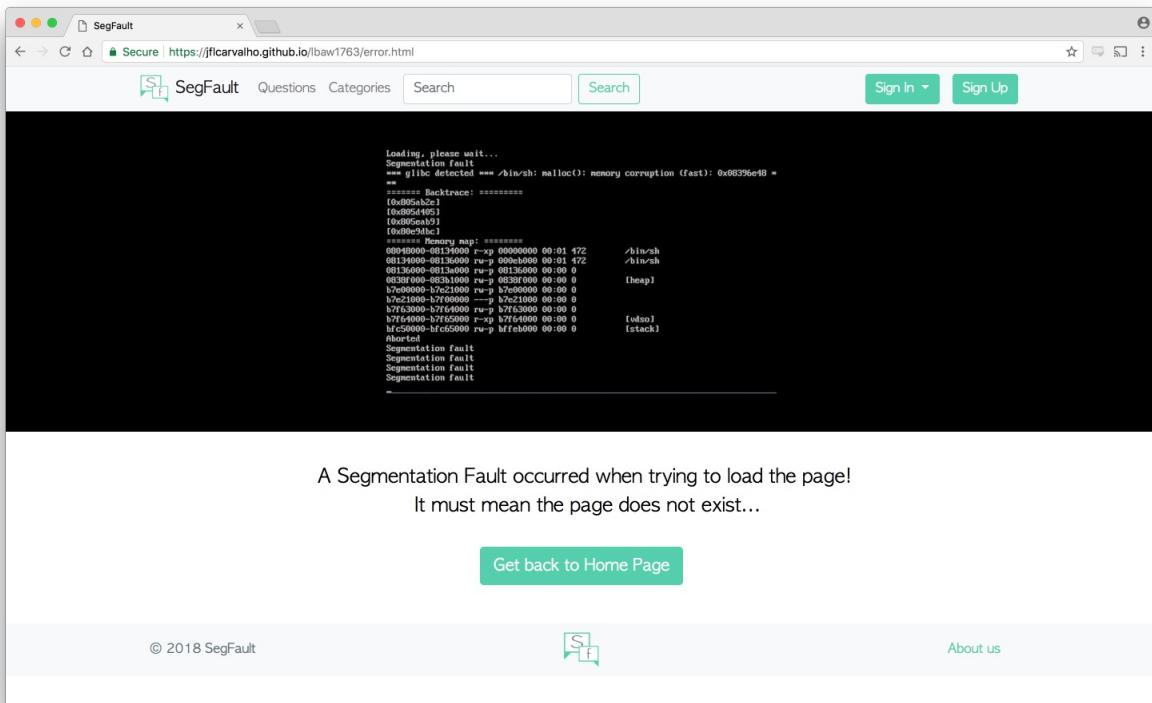


Figure 10.a: Error page.



Figure 10.b: Error page, on mobile.

UI09: Edit Profile

The [edit profile](#) lets a user edit he's own profile (bio, picture and background).

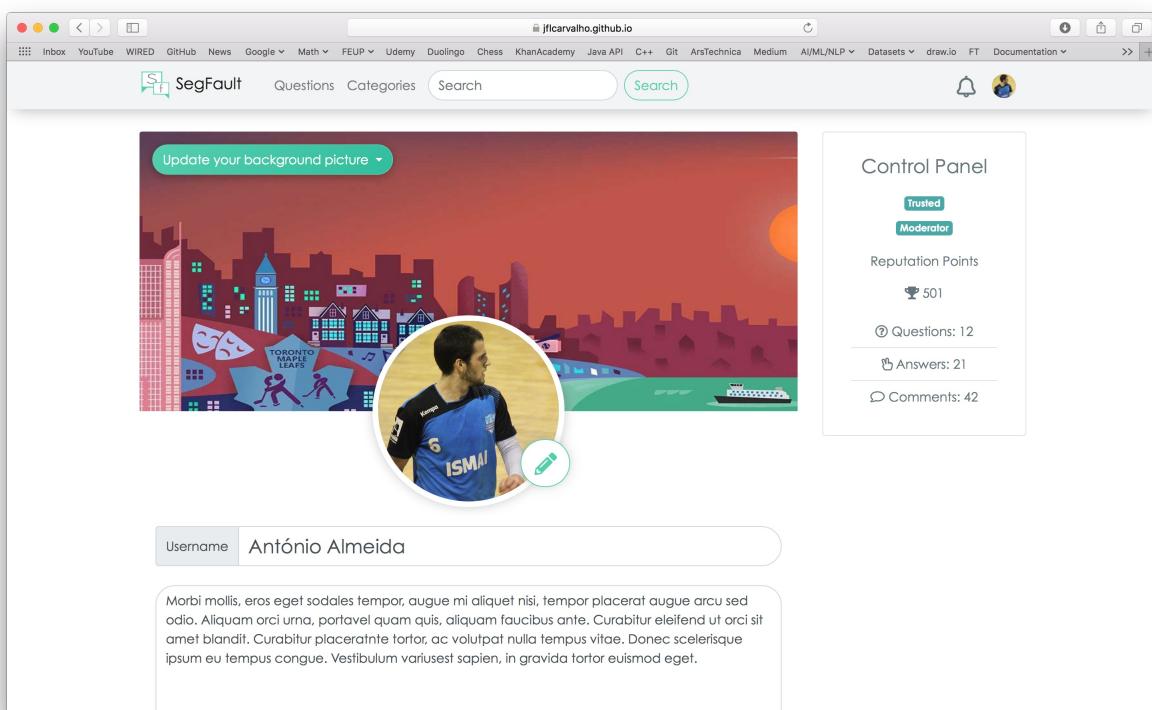


Figure 10.a: [Edit Profile](#).

Revision history

- 12/03/2018: Moved sign in/up/out from the User Area to (a new) Authentication Area in the Sitemap.
- 12/03/2018: Improved the order of the stories in the Story Board, added a title for each of them and added screenshots showing the results of the story.
- 13/03/2018: Updated screenshots.
- 11/04/2018: Added edit profile, UI09.

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