Test Report - applifting.io

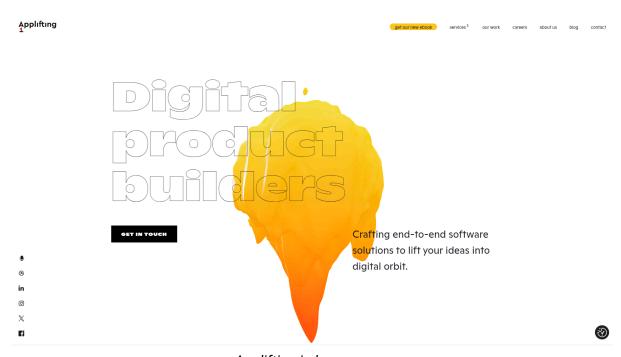
by Tomáš Chalupa

The subject of testing is the <u>applifting.io</u> website. Although there are many ways to test a website, the testing reported in this document will focus on accessibility testing.

Accessibility testing determines whether a website is accessible to all users, including those with disabilities.

Test subject

Applifting.io is the website of the Karlín-based software company Applifting s.r.o. The website presents information about the company culture, services offered, showcases important projects that the company has implemented in the past and also lists career opportunities for job seekers. It also contains links to Applifting's social media profiles and several contact forms and details.

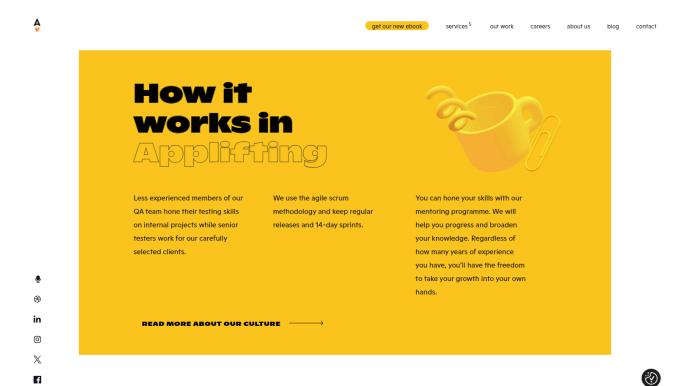


Applifting.io home page

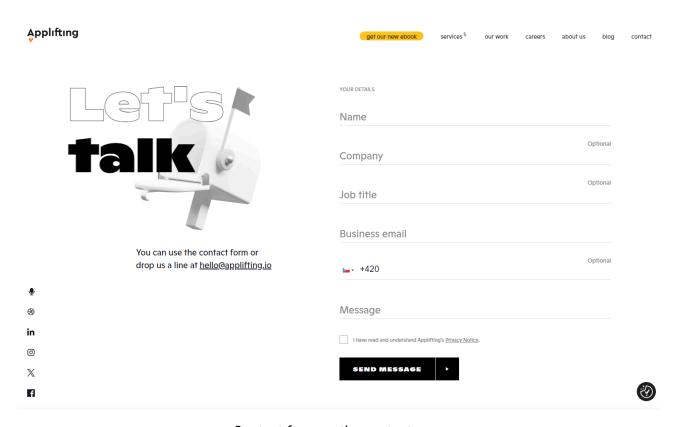
Scope

These pages of the tested website were selected for accessibility testing:

- **Home page**: As it is usually the first point of entry for users when they accessed the website from the internet.
- **Specific job offer page**: As it is the most important page for potential job seekers, seeking specific role information.
- About us page: As it contains the essential information about the company and its history.
- Contact page: As it provides a direct communication channel for visitors.



Part of the specific job offer page

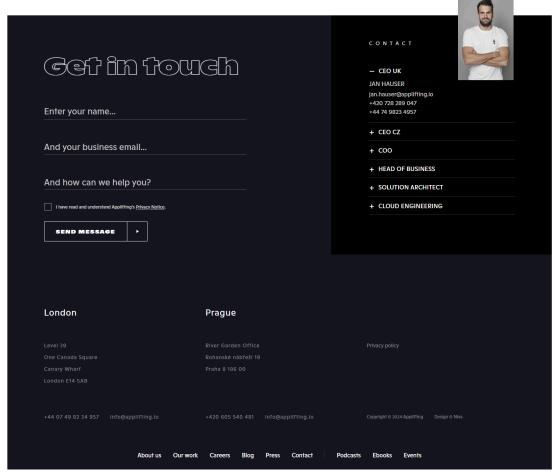


Contact form on the contact page

As the pages detailing services and specific projects share similar structures with the selected pages, they will not be tested individually.

Common components present across multiple pages will be tested separately. These components are:

- Site header with company logo and navigation bar
- Bottom left menu with links to podcasts and social networks
- Bottom box with contact form and footer



Bottom box with contact form and footer

Methods and tools

Before testing, the requirements will be defined. Each part, defined in the Scope chapter, will be tested against these requirements using manual testing together with the <u>Lighthouse</u> tool. For color contrast testing the online <u>contrast checker tool from webaim.org</u> will be used.

Environment

Accessibility testing will be performed in Google Chrome browser (v133) on Windows 10. For some tests, mobile view emulation in the developer tools will be used.

Definition of requirements

14 requirements were defined for accessibility testing. The tested requirements were chosen based on WCAG2 requirements (https://www.w3.org/WAI/WCAG22/quickref/), requirements monitored by Lighthouse (in Chrome developer tools) and rules from the Deque University website.

The requirements are:

A1 – All images have alt attributes

- > Description: All decorative elements should have short descriptive alternative text in the alt attribute.
- > Reason: Screen readers use the alt attribute to describe the image.

A2 - All links have an accessible name

- Description: All links must have a descriptive accessible name that clearly indicates their destination or function. For links without inner text (e. g. image-only links), it is recommended to use attributes such as aria-label or aria-labelledby.
- > Reason: Screen readers require accessible names to convey the purpose of links to users.

A3 - All buttons have an accessible name

- > Description: All buttons must have a descriptive accessible name that clearly indicates their function. For buttons without inner text, it is recommended to use attributes such as aria-label or aria-labelledby.
- > Reason: Screen readers require accessible names to convey the purpose of buttons to users.

A4 - Colors of elements have a sufficient contrast ratio

- ➤ Description: There should be sufficient color contrast between the text and background color behind it. According to WCAG 2.2 AA standards, the color contrast ratio should be at least 4.5:1 for small text or 3:1 for large text. This requirement also applies to other user interface components.
- > Reason: Users with low vision may not be able to distinguish between the colors with low contrast ratios.

A5 – Interactive controls are keyboard focusable

- > Description: All interactive controls, such as buttons, form inputs, links and custom interactive elements should be focusable using the keyboard (the tab key).
- > Reason: Users who cannot use a mouse must be able to navigate and interact with the website.

A6 – Tab order is logical and functional

- Description: Order of elements when focusing using tab key should be logical and should work intuitively in both directions: forward (tab) and backward (shift + tab). Users must not become trapped within any element.
- > Reason: Navigation and interaction with the website must be intuitive and easy to use for users who cannot use a mouse.

A7 - Visual order of elements follows DOM order

- > Description: The visual order of elements on the page should match the DOM order. CSS can visually reorder some elements, but DOM must maintain logical order.
- Reason: Screen readers navigate the page based on the DOM order. Differences between visual and DOM order can lead to confusing and inaccurate information for users.

A8 - Document has a <title> element

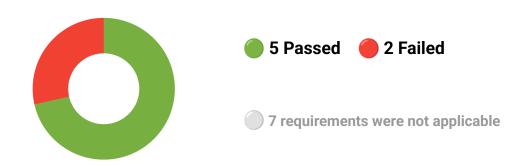
- > Description: All pages must have a unique and descriptive <title> element within the <head> element.
- > Reason: Screen readers announce the <title> element as the first thing when a page is loaded.
- A9 <html> element has a lang attribute and it has a valid value
 - > Description: The lang attribute specifies the primary language of the page's content.
 - ➤ Reason: Screen readers use the lang attribute to select the appropriate pronunciation and voice settings. If it is not specified or is invalid, screen readers may use the user's default language, leading to incorrect pronunciation.
- A10 Links are distinguishable from the surrounding text
 - > Description: Clickable links must be easily visually distinguishable from non-clickable text.
 - > Reason: Without clear visual distinction, users may not recognize links, leading to confusion.
- A11 Lists contain only elements and script supporting elements
 - Description: All ordered and unordered lists (and elements) should contain only list items () elements or script supporting elements (<template> and <script>).
 - > Reason: Screen readers may have problems with announcing lists with different content.
- A12 List items are contained only within the list parent elements
 - > Description: List items () must be directly wrapped within their appropriate parent elements (, or <menu>).
 - > Reason: Screen readers may have problems with announcing invalid lists.
- A13 Text can be resized up to 200 percent without loss of content or functionality
 - ➤ Description: Users should be able to use their browser's zoom functionality to increase the size of text and all page content up to 200 percent without any loss of content or functionality.
 - > Reason: Users with low vision or other visual impairments may need to increase the size of content to read it comfortably.
- A14 Invalid values in form inputs are detected and described to the user
 - > Description: When users enter invalid values into form inputs, clear and concise error messages should be displayed near the affected input field.
 - > Reason: Providing clear error messages helps users understand why their input is invalid, preventing confusion and frustration.

Test results

Each of the 14 requirements was tested seven times, applying the tests to different components or pages as defined in the Scope chapter.

Common components

Site header



Passed: A4, A5, A6, A7, A13

Failed:

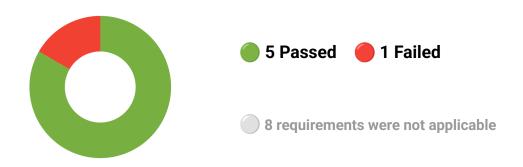
A2 - All links have an accessible name

- > Reason: Company logo has no accessible name.
- > Recommendation: Add aria-label="Applifting Logo" attribute to the <a> tag.

A3 - All buttons have an accessible name

- > Reason: In mobile view, the "hamburger" button in the menu has no accessible name.
- > Recommendation: Add aria-label="Open Menu" to the <button> tag.

Bottom left menu



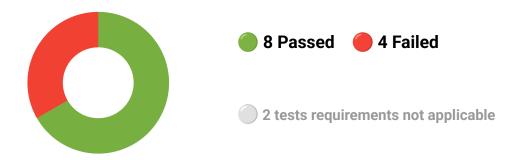
Passed: A4, A5, A6, A7, A13

Failed:

A2 - All links have an accessible name

- > Reason: Links (icons) to podcasts and social networks have no accessible name.
- > Recommendation: Add the aria-label attributes with the appropriate values to all <a> tags.

Bottom box



Passed: A1, A2, A6, A7, A11, A12, A13, A14

Failed:

A3 – All buttons have an accessible name

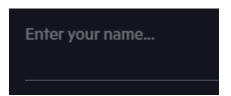
- > Reason: In mobile view, both arrow buttons to navigate between contacts have no accessible name.
- > Recommendation: Add the aria-label attributes with the appropriate values to both

 dthe aria-label attributes with the appropriate values to both

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A4 – Colors of elements have a sufficient contrast ratio

- Reason: The contrast ratio between the input labels and the background color when inputs are focused or not empty is 3.56:1. According to WCAG, this is sufficient for large text, but not for normal text.
- > Recommendation: Consider changing the font color.



Focused form input and its label

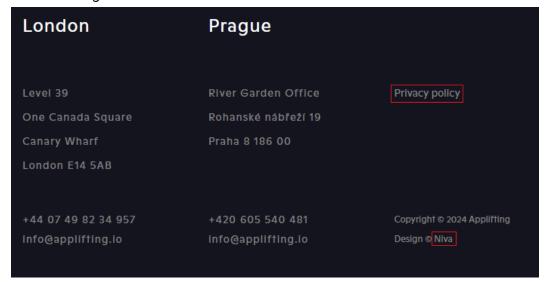
A5 – Interactive controls are keyboard focusable

- > Reason: The accordion component with contacts does not have focusable controls, it is not possible to open the contacts for a specific role using only the keyboard
- > Recommendation: Make the items in the contact list focusable.



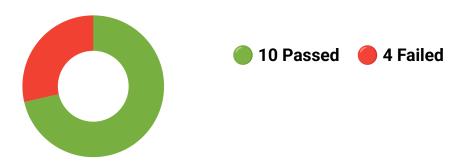
Pluses in the contact list are not focusable

- A10 Links are distinguishable from the surrounding text
 - > Reason: In the footer are links that are the same colour as the surrounding text (Privacy Policy, Design © Niva).
 - > Recommendation: Change the style of the links to be different from the style of the surrounding non-clickable text.



Part of the footer of the site with links that are indistinguishable (marked red)

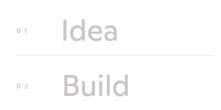
Home page



Passed: A2, A5, A6, A7, A8, A9, A10, A12, A13, A14

Failed:

- A1 All images have descriptive alt attributes
 - > Reason: In mobile view, the flame background image does not have the alt attribute.
 - > Recommendation: Add the alt attribute to the image.
- A3 All buttons have an accessible name
 - > Reason: The newsletter subscription button does not have an accessible name.
 - > Recommendation: Add aria-label="Submit email" to the <button> tag.
- A4 Colors of elements have a sufficient contrast ratio
 - > Reason: The Products and services section contains links with a contrast ratio of only 1.7:1, which does not meet the requirements of WCAG2 level AA.
 - > Recommendation: Consider changing the font color.

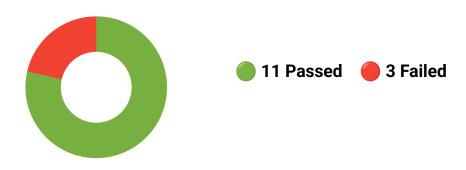


Part of the Products and services section with insufficient contrast ratio

A11 – Lists contain only elements and script supporting elements

- > Reason: In the "Our Work" list, there is a div tag and links. Screen readers may have problems with announcing this list.
- > Recommendation: Put the current contents of the list in tags.

Job offer page



Passed: A1, A2, A3, A5, A6, A7, A8, A9, A11, A12, A13

Failed:

A4 - Colors of elements have a sufficient contrast ratio

- > Reason: The contrast ratio between the input labels and the background color of the "Interested?" form when inputs are focused or not empty is 3.56:1. According to WCAG, this is sufficient for large text, but not for normal text. This is the same issue as in the "Bottom box".
- > Recommendation: Consider the appropriate ratio for this text size or change the font color.

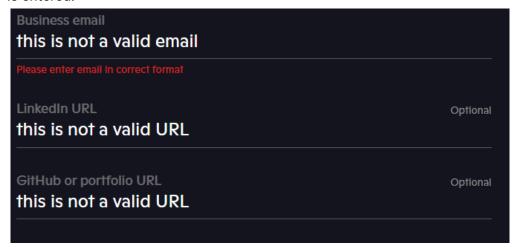
A10 – Links are distinguishable from the surrounding text

- > Reason: In the contact the recruiter part, the LinkedIn link is not visually distinct from the surrounding text, making it difficult to identify as a clickable element. This can be confusing, especially since the email address is plain text and not a link.
- > Recommendation: Change the style of the link to be different from the style of the non-clickable contact items or make the email address also clickable via mailto (content of both look like links).



Recruiter contact on the job offer page. The LinkedIn link is clickable, email is not.

- A14 Invalid values in form inputs are detected and described to the user
 - > Reason: The "Interested?" form does not provide feedback for invalid values entered into optional inputs.
 - Recommendation: Implement a validation for the optional inputs (both should be URLs), and display a warning message beneath the respective input if an invalid value is entered.



Part of the "Interested?" form with invalid values. Missing message for optional fields.

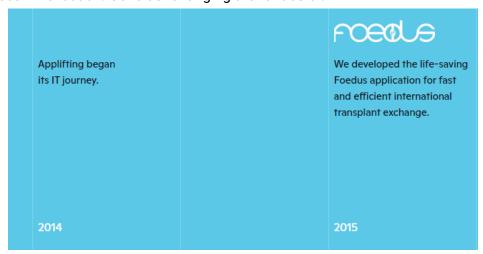
About us page



Passed: A2, A3, A6, A7, A8, A9, A10, A11, A12, A13

Failed:

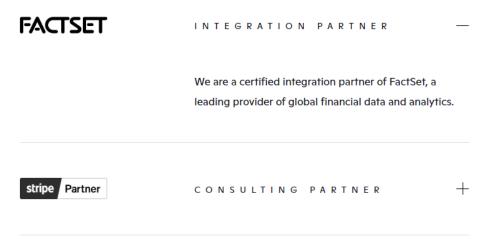
- A1 All images have descriptive alt attributes
 - > Reason #1: Image in the culture section does not have an alt attribute.
 - > Recommendation #1: Add an alt attribute to the image in the culture section.
 - > Reason #2: The partner list logos all use "logo" as their alt attribute value.
 - Recommendation #2: Set unique and descriptive alt attribute values for each partner logo.
- A4 Colors of elements have a sufficient contrast ratio
 - Reason: The years in the timeline box have a contrast ratio of 1.89:1 to the blue background. It does not meet the requirements of WCAG2 level AA, which requires a ratio of at least 4.5:1 for normal text.
 - > Recommendation: Consider changing the font color.



Part of the timeline box with years with insufficient contrast ratio

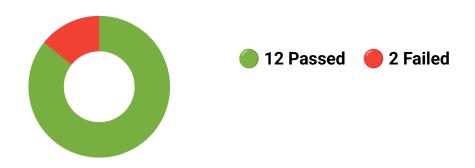
A5 – Interactive controls are keyboard focusable

- > Reason: The accordion component with partners does not have focusable controls. It is not possible to open a detail of a specific partner using only the keyboard.
- > Recommendation: Make the items in the partners list focusable.



Pluses in the accordion component with partners are not focusable

Contact page



Passed: A1, A2, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14

Failed:

A3 - All buttons have an accessible name

- > Reason: Both arrow buttons to navigate between contacts have no accessible name.
- Recommendation: Add the aria-label attributes with the appropriate values to both

 dthe aria-label attributes with the appropriate values to both

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- A4 Colors of elements have a sufficient contrast ratio
 - ➤ Reason #1: The contrast ratio between the input labels and the background color of the form when inputs are focused or not empty is 1.7:1, which does not meet the requirements of WCAG2 level AA.
 - > Recommendation #1: Consider changing the font color.
 - > Reason #2: The arrow buttons to navigate between contacts are dark on a dark background and are therefore difficult to see.
 - > Recommendation #2: Change the color of the arrows.

Job title QA Engineer

Filled in form input and its label



Contacts with poorly visible navigation arrows on the sides

Summary

A total of 80 tests were performed. 61 of them passed resulting in an overall success rate of **76.25**%.

Conclusion

The applifting io website has some minor accessibility issues, but succeeded in most parts of the testing. The deficiencies found can be divided into several categories:

- 1. missing accessible names
- 2. an unfocusable interactive element
- 3. insufficient information to the user about non-valid input in the form
- 4. list containing elements other than
- 5. insufficient contrast ratio
- 6. indistinguishable links

The first three categories of deficiencies can be easily fixed. Fixing a deficiency from the fourth category will likely require more changes in the "Our work" list component. Deficiencies from the fifth and sixth categories can either be eliminated or intentionally left in based on the UX designer's decision.

Across all tested pages, it was found that the visual order on the page matched the order in the DOM, and the order and function of focusing using the tab key were correct. All pages also contain a title and have the lang parameter set. These aspects are essential to making the site more accessible to all people, including those with disabilities.