

**САНКТ-ПЕТЕРБУРГСКИЙ НАЦИОНАЛЬНЫЙ
ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО**

Дисциплина: Фронт-энд разработка

Отчет

Домашняя работа №2

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Санкт-Петербург

2026 г.

Задача

Улучшить доступность ранее реализованного сайта. Добавить необходимые HTML-атрибуты ко всему контенту на странице и проверить это с помощью инструментов из Dev Tools браузера Firefox и сервиса Google Lighthouse.

Ход работы

1. Общие доработки

Во всех страницах проекта улучшена доступность: все поля форм связаны с <label> через for, добавился aria-labelledby для связи секции и заголовка обязательные поля отмечены required. Различные сообщения об ошибках или просто уведомления выводятся в отдельные элементы с role и aria-live, чтобы скринридеры озвучивали их автоматически. Навигационным ссылкам проставлен aria-label, заголовки и секции теперь отмечены aria-labelledby. Для изображений добавили alt с описанием, списки и элементы отмечены ролями list и listitem.

Проверка доступности была сделана через Lighthouse, уже на странице регистрации нашлась ошибка с низким контрастом текста ссылки, для исправления этого было добавлено подчеркивание.

The screenshot shows an accessibility audit interface. At the top center is a green circular icon with the number '95'. Below it is the word 'Accessibility' in bold. A text block below the title says: 'These checks highlight opportunities to [improve the accessibility of your web app](#). Automatic detection can only detect a subset of issues and does not guarantee the accessibility of your web app, so [manual testing](#) is also encouraged.' Under the heading 'CONTRAST', there is a warning: '▲ Links rely on color to be distinguishable.' This is followed by a message: 'Low-contrast text is difficult or impossible for many users to read. Link text that is discernible improves the experience for users with low vision. [Learn how to make links distinguishable](#)''. Below this is a 'Failing Elements' section containing a screenshot of a login form. The screenshot shows a button labeled 'Войти' (Login) which is highlighted with a yellow border. The text 'Войти' is in white, which is considered low-contrast against a dark background. The element is identified as 'nav.text-center.mt-3'. At the bottom of the audit interface, a message reads: 'These are opportunities to improve the legibility of your content.'

Рисунок 1 - Ошибка контрастности

The screenshot shows two side-by-side views. On the left is a registration form titled 'Регистрация'. It has fields for 'Имя' (Name), 'Email' (with value 'nata@example.com'), 'Пароль' (Password), 'Повторите пароль' (Repeat password), and a 'Зарегистрироваться' (Register) button. Below the button is a link 'Уже зарегистрированы? [Войти](#)'. On the right is an accessibility audit report for the same page. It features a green circular icon with '100'. The title is 'Accessibility'. The same explanatory text as in Figure 1 is present. Below it is a 'ADDITIONAL ITEMS TO MANUALLY CHECK (10)' section with several items listed, each with a dropdown arrow: 'Interactive controls are keyboard focusable', 'Interactive elements indicate their purpose and state', 'The page has a logical tab order', 'Visual order on the page follows DOM order', 'User focus is not accidentally trapped in a region', and 'The user's focus is directed to new content added to the page'. There is also a 'Hide' link at the top right of this section.

Рисунок 2 - Страница регистрации

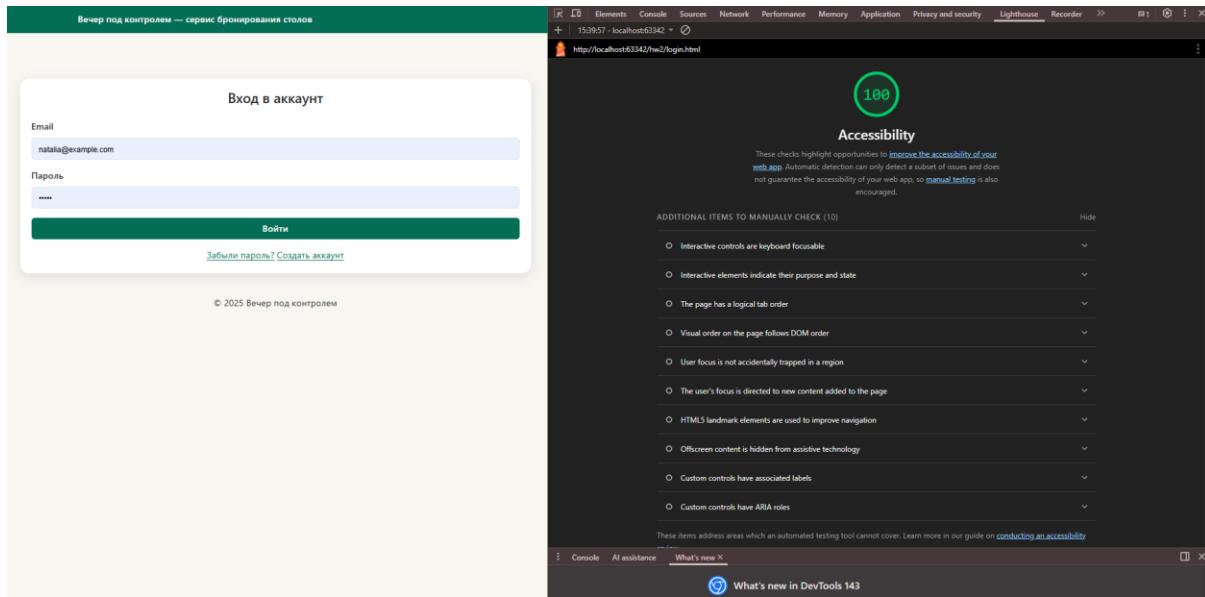


Рисунок 3 - Страница входа

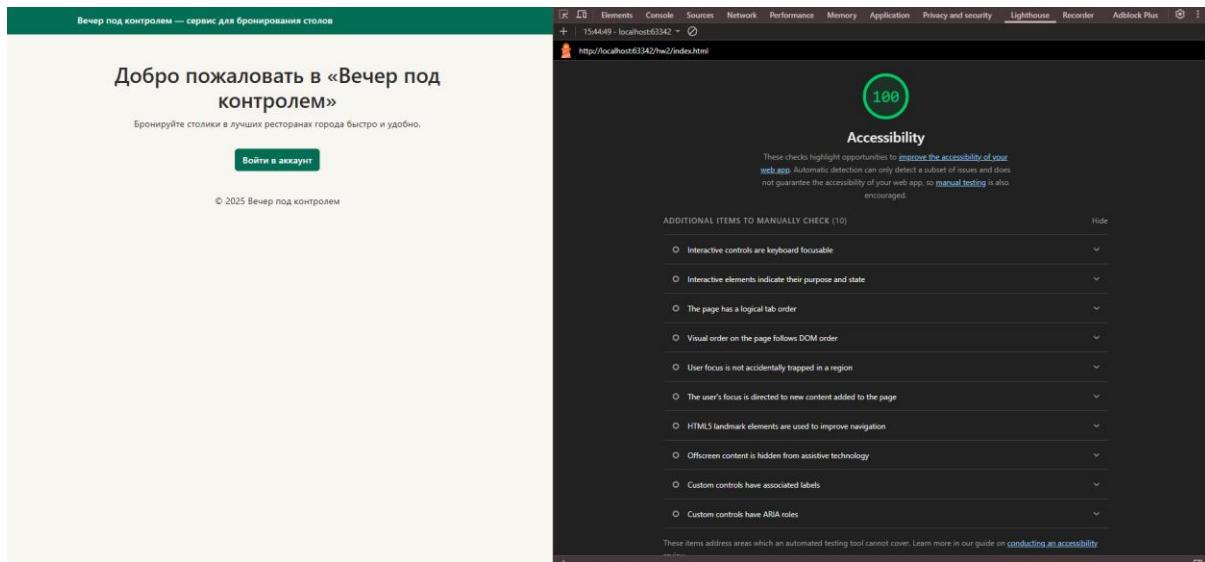


Рисунок 4 - Главная страница

The screenshot shows a password recovery interface on the left and its corresponding Lighthouse accessibility audit on the right.

Left Side (Password Recovery Form):

- Page title: Вечер под контролем — сервис бронирования столов
- Section: Восстановление пароля
- Text: Подтвердите свою личность и придумайте новый пароль
- Input: Подтверждаю, что являюсь владельцем аккаунта
- Input: Новый пароль
- Input: Повторите пароль
- Button: Сохранить новый пароль
- Text: Вернуться к форме входа
- Page footer: © 2025 Вечер под контролем

Right Side (Lighthouse Accessibility Audit):

- Score: 100
- Section: Accessibility
- Text: These checks highlight opportunities to improve the accessibility of your web app. Automatic detection can only detect a subset of issues and does not guarantee the accessibility of your web app; so manual testing is also encouraged.
- Section: ADDITIONAL ITEMS TO MANUALLY CHECK (10)
- List of 10 items (radio buttons):
 - Interactive controls are keyboard focusable
 - Interactive elements indicate their purpose and state
 - The page has a logical tab order
 - Visual order on the page follows DOM order
 - User focus is not accidentally trapped in a region
 - The user's focus is directed to new content added to the page
 - HTML5 landmark elements are used to improve navigation
 - Offscreen content is hidden from assistive technology
 - Custom controls have associated labels
 - Custom controls have ARIA roles
- Text at the bottom: These items address areas which an automated testing tool cannot cover. Learn more in our guide on conducting an accessibility audit.

Рисунок 5 - Страница восстановления пароля

The screenshot shows a search results page for restaurants on the left and its corresponding Lighthouse accessibility audit on the right.

Left Side (Restaurant Search Results):

- Page title: Вечер под контролем — сервис бронирования столов
- Section: Профиль
- Section: Поиск ресторанов
- Filters: Кухня (Все), Расположение (Все районы), Ценовой сегмент (Любой)
- Button: Применить
- List of restaurants:
 - Мама гома**
Кухня: Итальянская
Район: Автозаводской
Цена: \$
 - Koreana Light**
Кухня: Азиатская
Район: Автозаводской
Цена: \$
 - Sampo**
Кухня: Северная
Район: Приморский
Цена: \$\$\$
 - Рамен Шифу 拉面师傅**
Кухня: Азиатская
Район: Центральный
Цена: \$\$

Right Side (Lighthouse Accessibility Audit):

- Score: 100
- Section: Accessibility
- Text: These checks highlight opportunities to improve the accessibility of your web app. Automatic detection can only detect a subset of issues and does not guarantee the accessibility of your web app; so manual testing is also encouraged.
- Section: ADDITIONAL ITEMS TO MANUALLY CHECK (10)
- List of 10 items (radio buttons):
 - Interactive controls are keyboard focusable
 - Interactive elements indicate their purpose and state
 - The page has a logical tab order
 - Visual order on the page follows DOM order
 - User focus is not accidentally trapped in a region
 - The user's focus is directed to new content added to the page
 - HTML5 landmark elements are used to improve navigation
 - Offscreen content is hidden from assistive technology
 - Custom controls have associated labels
 - Custom controls have ARIA roles
- Text at the bottom: These items address areas which an automated testing tool cannot cover. Learn more in our guide on conducting an accessibility audit.

Рисунок 6 - Страница списка ресторанов

The screenshot shows a restaurant profile page on the left and the Lighthouse accessibility audit results on the right.

Restaurant Profile (Left):

- Header:** Назад к списку ресторанов, Профиль
- Image:** Interior photo of a restaurant with tables and chairs.
- Name:** Mama roma
- Description:** Описание
- Cuisine:** Итальянская
- Location:** Автозаводский
- Address:** ул. Ленина, 12, Нижний Новгород
- Price Range:** \$
- Buttons:** Забронировать стол (Reserve table), Скачать меню (PDF)
- Section:** Доступность столов (Table availability)
- Form:** Date input field (dd.mm.yyyy) with placeholder "Выберите дату, чтобы узнать доступность".
- Section:** Меню ресторана (Restaurant menu)
- Section:** Фотографии ресторана (Restaurant photos)

Lighthouse Accessibility Audit (Right):

- Score:** 100
- Section:** Accessibility
- Text:** These checks highlight opportunities to [improve the accessibility of your web app](#). Automatic detection can only detect a subset of issues and does not guarantee the accessibility of your web app, so [manual testing](#) is also encouraged.
- Section:** ADDITIONAL ITEMS TO MANUALLY CHECK (10)
- List:**
 - Interactive controls are keyboard focusable
 - Interactive elements indicate their purpose and state
 - The page has a logical tab order
 - Visual order on the page follows DOM order
 - User focus is not accidentally trapped in a region
 - The user's focus is directed to new content added to the page
 - HTML5 landmark elements are used to improve navigation
 - Offscreen content is hidden from assistive technology
 - Custom controls have associated labels
 - Custom controls have ARIA roles
- Text:** These items address areas which an automated testing tool cannot cover. Learn more in our guide on [conducting an accessibility audit](#).
- Bottom:** Console, AI assistance, What's new X, What's new in DevTools 143

Рисунок 7 - Страница ресторана

The screenshot shows a user profile page on the left and the Lighthouse accessibility audit results on the right.

User Profile (Left):

- Header:** Назад к списку ресторанов
- Image:** Hello Kitty profile picture.
- Name:** Наталия1
- Email:** natalia@example.com
- Section:** Актуальные бронирования (Current reservations)
- List:** Mama roma — 2026-02-04 / 23:23, Рамен Шибу 拉面师傅 — 2026-01-13 / 12:00
- Section:** История бронирований (Reservation history)
- List:** Mama roma — 2025-02-14 / 19:00
- Buttons:** Изменить данные (Edit data), Сменить пароль (Change password)
- Text:** © 2025 Вечер под контролем

Lighthouse Accessibility Audit (Right):

- Score:** 100
- Section:** Accessibility
- Text:** These checks highlight opportunities to [improve the accessibility of your web app](#). Automatic detection can only detect a subset of issues and does not guarantee the accessibility of your web app, so [manual testing](#) is also encouraged.
- Section:** ADDITIONAL ITEMS TO MANUALLY CHECK (10)
- List:**
 - Interactive controls are keyboard focusable
 - Interactive elements indicate their purpose and state
 - The page has a logical tab order
 - Visual order on the page follows DOM order
 - User focus is not accidentally trapped in a region
 - The user's focus is directed to new content added to the page
 - HTML5 landmark elements are used to improve navigation
 - Offscreen content is hidden from assistive technology
 - Custom controls have associated labels
 - Custom controls have ARIA roles
- Text:** These items address areas which an automated testing tool cannot cover. Learn more in our guide on [conducting an accessibility audit](#).
- Bottom:** Console, AI assistance, What's new X, What's new in DevTools 143

Рисунок 8 - Страница профиля пользователя

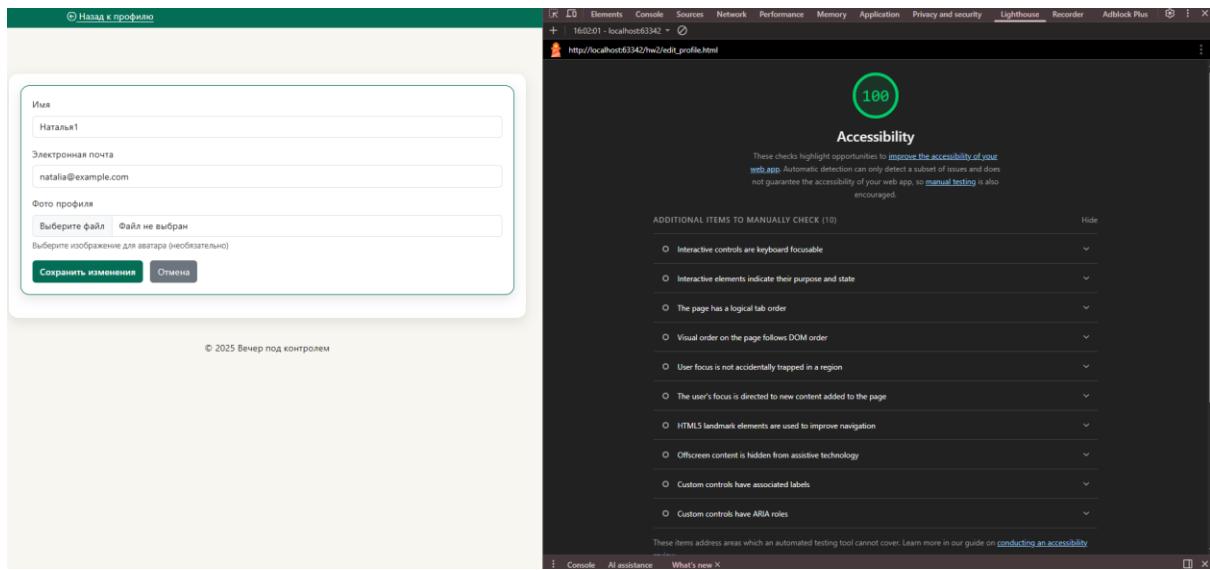


Рисунок 9 - Страница изменения настроек пользователя

Вывод

Приложение стало более доступным для людей с ограниченными возможностями, доступность обеспечивает корректное восприятие контента всеми пользователями.