
elev8
JUNIOR FRONTEND
WEB DEVELOPER
PROJECT & MENTORING

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About the Guide

This guide provides you with information about the front-end web development project. This comprehensive guide serves as a valuable resource with information for honing your skills and becoming a proficient front-end developer.

The main project's objective for students is to use their knowledge and skills acquired during the training to develop a project. Each project will be prepared individually according to the requirements and guidance from the trainer. This activity is mandatory and part of the Junior Web Developer Journey.

Failing to submit the project before the due date will be scored as a 0 affecting the student's course grade. As a reminder, any non-submitted project may be considered as part of the course exclusion criteria.

Overview

The E-commerce Web Application Development project is an immersive 5-day program designed to empower front-end developers to create a captivating and interactive e-commerce website. This project invites students to concentrate on user interface design, responsive layouts, and enhancing user experiences. While the original project included backend elements, we have tailored this version to primarily focus on frontend development to align with your expertise.

Objective

The objective of the project is to provide front-end developers with practical experience in building a dynamic and visually appealing e-commerce web application. By utilizing your knowledge of HTML, CSS, JavaScript, and responsive design principles, you will craft an engaging user interface that

meets modern e-commerce standards.

Project Duration

5 days

Team members

- It will be individual or teamwork.

Participants Preparation

Participants would have been pre-informed about the training and the skills they stand to gain by attending it as well as the duration and what they will be needing for the training (if any).

Equipment and Tools

- Headset
- Laptop or computer with stable internet access.

Survey

Kindly fill out the survey to give us feedback about your experience throughout this course.

Project Task

Sample E-commerce Websites for Reference

Website: Amazon

Website Link: Amazon E-commerce

Description: Explore one of the largest and most popular e-commerce platforms globally. Observe how Amazon presents a wide range of products, offers user reviews, and provides a seamless shopping experience.

Website: Shopify

Website Link: Shopify E-commerce

Description: Visit Shopify, an e-commerce platform that empowers businesses to set up their online stores. Notice its user-friendly interface, customizable templates, and integrated features for managing products and orders.

Website: Etsy

Website Link: Etsy Handmade and Vintage Goods

Description: Explore Etsy, a unique e-commerce platform focused on handmade, vintage, and creative goods. Pay attention to its niche market, personalized storefronts, and community-driven approach.

Website: Zappos

Website Link: Zappos Shoes & Clothing

Description: Discover Zappos, a specialized e-commerce site for shoes, clothing, and accessories. Notice its extensive product catalog, user-friendly search options, and emphasis on customer service.

Why We Provide These Samples:

These sample e-commerce websites serve as practical references for your project. By exploring different platforms, you'll gain insights into how various

e-commerce features are implemented, such as product categorization, search functionality, user registration, cart management, and checkout processes. These examples will help you envision the scope and user experience that your own e-commerce web application should deliver.

Project Timeline

Day 1: Project Setup and Basic Layout

- Introduction to the project's objectives and goals.
- Set up version control using Git for collaborative development.
- Initiate the basic project structure with HTML and CSS files.
- Create a responsive header for the web app.
- Start designing the homepage layout.
- Define product data structure.

Day 2: Product Listing and Interaction

- Integrate JavaScript for dynamic content manipulation.
- Populate product data using JavaScript objects or JSON.
- Design product cards with images and essential details.
- Implement "Add to Cart" functionality for each product.
- Ensure responsive design for the product listing page.
- Test and debug product listing interactions.

Day 3: Shopping Cart and Checkout

- Develop the shopping cart page layout.
- Add selected products to the cart with quantity control.
- Enable removal of items from the cart.
- Create a checkout page with order summary.
- Implement basic form validation for the checkout.
- Test and refine cart and checkout features.

Day 4: Responsive Design and Styling

- Apply media queries to achieve responsive design.
- Test and optimize UI/UX for mobile, tablet, and desktop.
- Refine CSS styles for consistent and appealing visuals.
- Implement smooth transitions or animations using CSS.
- Review and clean up the project codebase.

- Prepare for final testing and documentation.

Day 5: Finalization and Presentation

- Conduct comprehensive project testing.
- Create user documentation with clear usage instructions.
- Prepare a concise presentation showcasing project features.
- Submit the project and documentation.

Post Project Activities: Deployment and Finalization

- Preparing the production environment for deployment.
- Setting up a web server or cloud platform for hosting the website.
- Deploying the application to the chosen hosting environment.
- Testing the live website to ensure a successful deployment.
- Performing final cross-device tests to ensure a seamless user experience.
- Performing a final user acceptance test to verify all requirements are met.
- Preparing the project for client handoff and user training.

Project Deliverables

1. Fully functional front-end e-commerce web application with user registration, product listing, cart, and checkout features.
2. Responsive and visually appealing front-end design with dynamic content.
3. Comprehensive documentation outlining project details, architecture, and deployment instructions.

Project Assessment

The project will be assessed based on the following criteria:

User Interface Design (30%)

- Visual appeal, consistency, and responsiveness of the design.
- User-friendly navigation and intuitive interactions.
- Effective use of color, typography, and layout.

User Experience (25%)

- Seamless and engaging shopping experience.
- Intuitive cart management and checkout process.
- Incorporation of user feedback for improvements.

Responsive Design (20%)

- Consistent experience across various devices and screen sizes.
- Effective use of media queries for responsive behavior.
- Mobile-first design approach and touch-friendly interactions.

Code Quality and Documentation (15%)

- Well-structured and organized HTML, CSS, and JavaScript code.
- Clear and comprehensive documentation of design decisions and implementations.
- User guides and documentation to assist users in navigating the application.

Presentation and Showcase (10%)

- Clear and engaging project presentation.
- Effective demonstration of key features and user interactions.
- Showcase of the application's responsiveness and user experience.

Note to Students:

We encourage you to embrace version control practices to enhance collaboration and effectively track your progress throughout the development of the E-commerce Web Application. Git is our recommended version control system for this project. It offers seamless collaboration among team members, streamlines code management, and ensures a well-organized development workflow.

Additionally, while we've provided a suggested database schema as a foundational structure for the project, we recognize that backend development may not be your focus. Feel empowered to use mock data or simplified APIs to simulate backend interactions as needed, allowing you to emphasize your strengths in front-end development.

Backend and Data

To build an application focusing solely on front-end development without backend APIs, here's how front-end developers can perform the required tasks without relying on backend web APIs.

1. **Simulate Data**

   In the absence of backend APIs, students can simulate data by creating JavaScript objects or using JSON files to mimic the data that would be fetched from a server. These objects or files can represent products, user accounts, and other relevant information.

2. **Data Interactions**

   Instead of making actual API requests, students can work with the simulated data directly in their JavaScript code. They can create functions to manipulate the data, such as filtering products, calculating cart totals, and managing user accounts.

3. **User Authentication**

   While real user authentication involves interactions with a backend server, students can simulate user authentication locally. They can use browser features like local storage or session storage to store user information and manage login states.

4. **Shopping Cart and Checkout**

   Students can implement a shopping cart and checkout system by adding and removing items from their simulated data objects. Cart contents can be stored in local storage or as part of the application's state management.

5. **Responsive Design**

   Students can continue to create responsive designs by using media queries and CSS grid/flexbox. Testing on different devices and screen sizes will

ensure that the application looks and functions well across various platforms.

6. **Visual Enhancements**
   Visual enhancements like animations and transitions can be added using CSS and JavaScript. Libraries like CSS animations or JavaScript animation frameworks can be used to enhance the user experience.

7. **Documentation and Presentation**
   Documentation can focus on explaining how simulated data is used, detailing design decisions, and providing user guides for the simulated interactions. The presentation can showcase the application's functionality, design, and responsiveness.

Please note that these project instructions and user requirements are provided for illustrative purposes and can be adjusted based on your specific preferences and technologies used.