

Introduction

This assignment is the last of six assignments. In this assignment, you will implement a shopping cart experience for your customers.

Before you begin this assignment, you must finish your previous assignment. All objectives listed for this assignment are to be made “on top” of your previous assignment.

This assignment is worth 9% of your final grade.

Reminder about academic integrity

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This assignment must be worked on individually and you must submit your own work. You are responsible to ensure that your solution, or any part of it, is not duplicated by another student. If you choose to push your source code to a source control repository, such as GIT, ensure that you have made that repository private.

A suspected violation will be filed with the Academic Integrity Committee and may result in a grade of zero on this assignment or a failing grade in this course.

Technical Requirements

- All back-end functionality must be done using **Node.js** and **Express**.
- You must use the **body-parser** module to handle form submissions.
- You must use the **express-session** module to handle user session state information. You may also use client-session (as posted on the WEB322 website) however it may not function correctly on Vercel.
- You must use **bcrypt.js** to encrypt user passwords.
- You must use **express-fileupload** or **multer** to process multipart form data.
- You must use **MongoDB** as your database engine.
- Your views must be created with **EJS**.
- You can use a front-end CSS framework such as Tailwind CSS, daisyUI, or Bootstrap to make your website responsive and aesthetically pleasing.
- You are not allowed to use any Front-End JavaScript Frameworks. For example, you may not use React, Vue, or Angular.

Objectives

Product Card Modifications

Logged in customers must be able to “purchase” products by adding the products of their choosing to their shopping cart. In a previous assignment, you created a product card partial view. You will modify the partial view so that the product card displays a “Buy” button, *to customers only*. Do not show the button to data clerks or when there is no one signed in.

Since the same card is used on the “products” page and home page, this button will appear on both pages. Clicking the button will:

- Add the product to the customer’s shopping cart *with a quantity of one*.
- Navigate the user to the shopping cart so that they can see the newly added product.

Shopping Cart Module

In a previous assignment, you started working on a shopping cart page. Modify the page so that it displays a list of the products that the customer added to their shopping cart.

For each product, you must show: an image thumbnail, the title, the price (or sale price), the quantity to purchase, the total amount for this product (*price of product x quantity*).

The customer must have some way of adjusting the number of products they want to purchase. They must also have a way of removing the product from their shopping cart.

In addition to the product information, you must also show the subtotal, taxes, and the grand total. Each are explained:

- Subtotal: Sum the price of the products that are in the cart (don't forget to consider the quantity).
- Tax: Calculate a 10% tax. For example, "subtotal x 0.10".
- Grand total: Add the subtotal and tax.

Finally, you must display a "Place Order" button on the page. When the button is pressed, your web application will send an email to the logged-in customer's email address, showing the same details displayed on the shopping cart page, except for the image thumbnail.

After the email is sent, clean (*zero-out*) the shopping cart. Do not log out the user, the customer may want to purchase additional products.

GitHub

You can continue to commit code changes to your local git repository but do not push your changes to GitHub until assignment 3 has been marked. If you push your changes to GitHub you may update your Vercel website before it has been marked.

Vercel

You are required to deploy the working web application to Vercel. Your deployment URL should not change but in case it does, please ensure you update the Readme.md file.

Rubric

Criteria	Not Implemented (0)	Partially Implemented (1)	Fully Implemented (2)
	Little or no work done. Unacceptable attempt.	Work is minimally acceptable but is incomplete or needs significant modification.	Work is complete and done perfectly.
Product Card <ul style="list-style-type: none"> A “buy” button appears, <i>for customers only</i>, on the product card. The same card is used on both the home and “inventory” pages. The button only appears if a customer is logged in. Clicking the “buy” button adds the product to the customer’s shopping cart and navigates them to the cart page. 			
Shopping Cart Module <ul style="list-style-type: none"> Each product displays an image thumbnail, the title, what is included, the price, the quantity, the line total. Customers can change the quantity they want to purchase or delete the product from their cart. The subtotal, a 10% tax, and the grand total are correctly calculated and displayed to the customer. 			

<ul style="list-style-type: none"> When the customer clicks the “Place Order” button, the application “clears” the shopping cart and sends an email with the required order information to the customer. The user is not logged out. After placing the order, an email is sent. The email contains the same details as the shopping cart. 			
Criteria	Not Implemented (0) Little or no work done. Unacceptable attempt.	Partially Implemented (4) Work is minimally acceptable but is incomplete or needs significant modification.	Fully Implemented (8) Work is complete and done perfectly.
Overall Behaviour and Look <ul style="list-style-type: none"> Overall site looks polished on all devices, follows the specifications as outlined in <u>all</u> assignments, and works well. All customer facing pages of the site are responsive. (The data clerk module does not need to be responsive). 			

Total: 22 Marks

Note: Half marks may be awarded.

Submitting your work

Make sure you submit your assignment before the due date and time. **Late assignments will receive a mark of zero!** It will take a few minutes to package up your project so make sure you give yourself a bit of time to submit the assignment.

1. Make sure all commits appear on GitHub and that the readme.md file contains the URL for both Vercel and GitHub. Test your site on Vercel. Do not push any commits to GitHub until assignment 3 has been marked.
2. Locate the folder that holds your solution files. **You must delete the “node_modules” folder but do not delete any other files or folders.**
3. Compress the copied folder into a zip file. **You must use ZIP compression, do not use 7z, RAR, or other compression algorithms or your assignment will not be marked.**
4. Login to <https://learn.senecapolytechnic.ca>, open the **Web Programming Tools and Frameworks** course area, then click the **Project** link on the left-side navigator. Follow the link for this assignment.
5. Submit/upload your zip file. The page will accept unlimited submissions so you may re-upload the project if you need to make changes. Make sure you make all your changes before the due date. Only the latest submission will be marked.