

E-Commerce

goals

- Decompose a project into smaller parts
- Apply coding fundamentals and iterative processes
- Expand on the previously developed website to add a credentialing and shopping cart feature as part of a Scrum team with entrepreneurial intent



description of web App

Develop a website that allows users to purchase apps that you created in Unit 1.

Essential Questions

1. What was your role on the Scrum development team?
2. What is the purpose of your program?
3. Where does your program integrate mathematical and/or logical concepts?
4. What does one of the algorithms in your program do?
5. How does an abstraction you created manage complexity in the program?
6. What part of the code did you develop?

Concepts

- Computer Science Practices, Computational Thinking, User-centered Design, Iterative Design and Testing
- Decomposition and Agile
- Algorithms, Variables, Arguments, Procedures, Operators, Data Types, Logic, Loops, and Strings

Resources

[Interpreted Performance Guide](#)

[Scrum](#)

[Project 3.2.5 Student Files](#)

Project Introduction

You will apply everything you have learned, along with some new features, to create an e-commerce site.



PLTW DEVELOPER'S JOURNAL Document all project work in your PLTW Developer's Journal.

1. Form teams according to your teacher's direction.
2. Review the [Interpreted Performance Guide](#) with your team and then with your teacher. These documents will help guide your team and capture the important milestones of your project.
3. Review [Scrum](#) roles.
4. Set team expectations.
5. Download the [sample project](#) for decomposition.

Part C: Prepare, Investigate, and Plan

6. Create a backlog of tasks you need to accomplish and the order you need to do them in. How can you overlap everyone on different parts to meet the final deadline of the project?

Initial Backlog Breakdown

- ☐ Set up a website app.
- ☐ Set up and apply a user authentication system.
- ☐ Allow users to post with images and see others' posts.
- ☐ Use templates to help streamline the look and uniformity of your site.
- ☐ Use HTML and CSS in your website.
- ☐ Use decomposition to apply the new shopping cart feature.

Project Requirements

Your e-commerce website should have the following functionality:

- ☐ A way for users to create accounts

- ☐ A way for users to log in and out
- ☐ A way for users to view the items available in your store
- ☐ A way to add items to your store
- ☐ A way to remove items from your store
- ☐ A way for users to select items to add to their cart
- ☐ A way for users to view the contents of their cart
- ☐ A way for users to remove items from their cart
- ☐ A way for users to place an order
- ☐ A way for users to view their orders
- ☐ A way for users to write reviews of specific items in the store
- ☐ A way to view the reviews for a specific item
- ☐ When an order is placed, the user's cart should be emptied.
- ☐ When an item is removed from the store, it should also be removed from all carts and orders.

Prepare, Investigate, and Plan

Part D: Design, Create, and Test

Every day you should look at what has been done and what should be done next in the time you have left. You will become quicker at doing this practice the more you do it.

7. Start with these daily refocusing questions.
 - What did I accomplish yesterday? Take a moment to think about what you did in the previous class period. It is important to identify what was done, otherwise you will not be able to add to it.
 - How does what I am doing fit with the work of my team members? You are not developing in isolation, but instead as a team. As your other team members are developing, it is important to stay aware of what they are doing. The whole team may need to make adjustments during the development to make sure the final app works the way it was planned.
 - What am I trying to accomplish today? Based on what you and others completed the day before, what should the priority be today to make sure your team will have a final product to share at the end of the development period?
8. Set up your website. Use the resources at your disposal—PLTW Developer's Journal, previous activities, and previous websites—to set up the workspace and basic website.
 - Create a workspace based on the naming scheme as directed by your teacher.
 - Share access to the workspace with the whole group and your teacher.

Design, Create, and Test

Part E: Evaluate and Reflect

Your teacher will explain the presentation style you will do for this project. When it is your team's turn to present, it is important that you are ready when your time starts and are done before your time ends. When time is up, your teacher will stop you, so anything you have not discussed or shown may not be included in your final presentation evaluation. For this reason, it is important that you practice.

To get ready for the presentation, you should be able to address, explain, and elaborate on the following items:

- I know what my part is to speak about.
- I know the order we are all talking, so I know when it is my turn to present.
- I can answer questions from others.

Evaluate and Reflect

Part F: Present

Be professional in your presentation.

- Start by introducing yourself. Even though the class may know who you are, it is always good practice to introduce yourself at the start of a presentation.
- Showcase your app; if time allows, let the audience try out the app.
- Review what you would do differently, improve on, or continue to develop in the future.

Present

Conclusion

1. How did you interpret and respond to the essential questions? Capture your thoughts for future conversations.