

Print3d Edition – E-commerce platform for 3D printed products

Overview

Print3d Edition is an e-commerce website where users can browse and purchase available 3D printed products. It was built for a small startup company to help make their goods and services available to the public. The website also includes admin tools to manage their product catalog and order processing.

Features

Admin Controls:

- Secure login and authentication with session checks to permit access.
- Add/edit products organized by category. Tools included to edit product details, inventory and photo uploads.
- View new orders needing to be processed.
- View all orders, appropriately marked with “PENDING” or “SHIPPED” status tags.

User Features:

- Displays products entered into the catalog.
- Accurately tracks product stock, preventing users from adding more than readily available at checkout.
- UPS address validation used to prevent incorrect address submissions for orders.
- Stripe payment integration for user security and less burden on admins.

Tech Stack

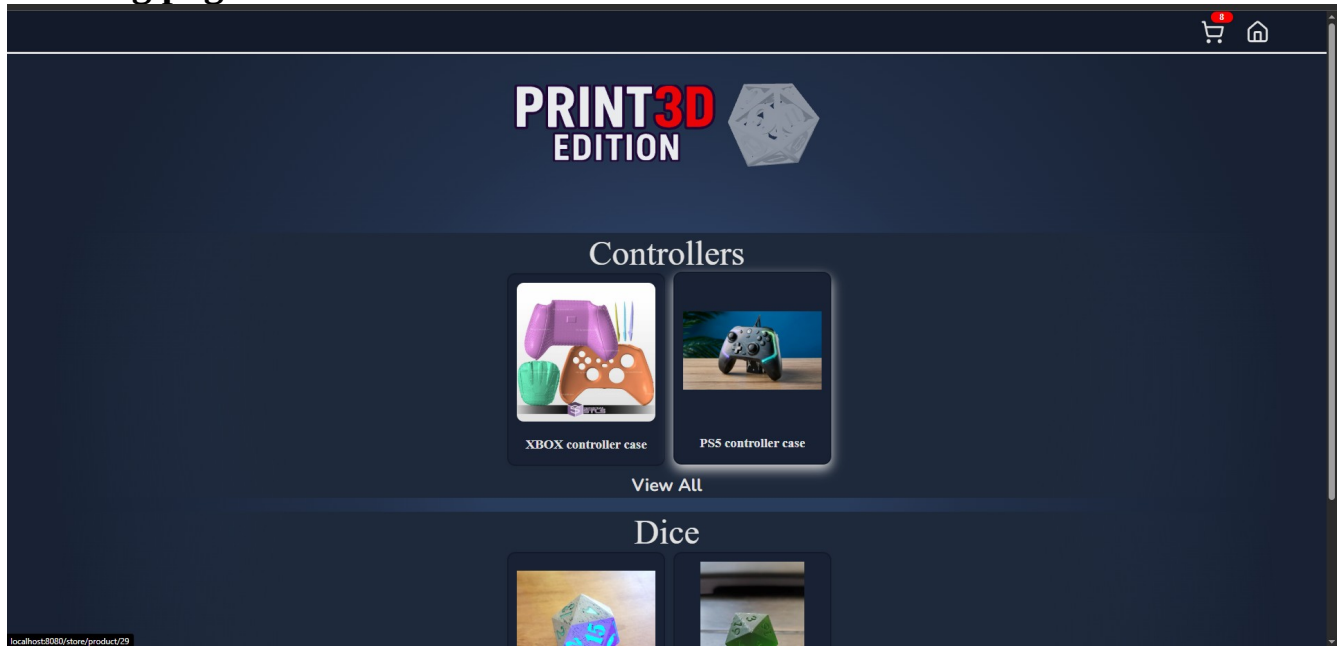
- Java Spring Boot
- Thymeleaf
- MySQL
- Stripe API
- UPS API
- HTML/CSS
- JavaScript

Video Demo:

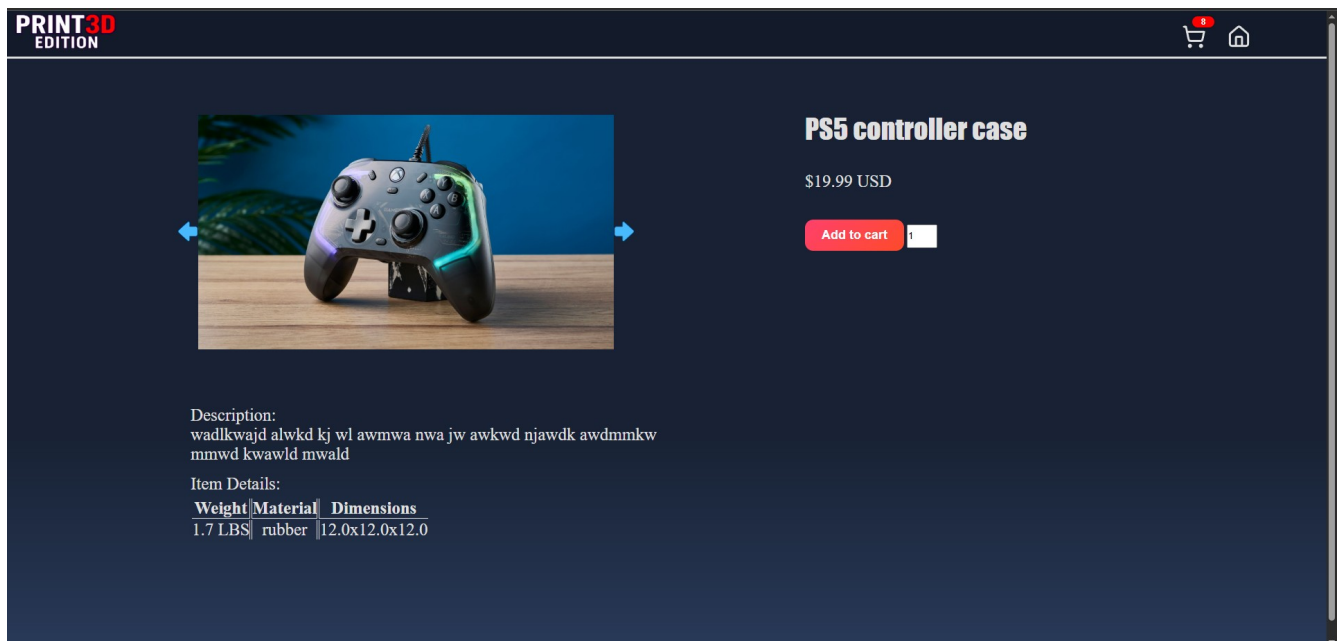
https://www.youtube.com/watch?v=U1tzyi1_NBA

Note: All products shown are for demo purposes. Not available for purchase

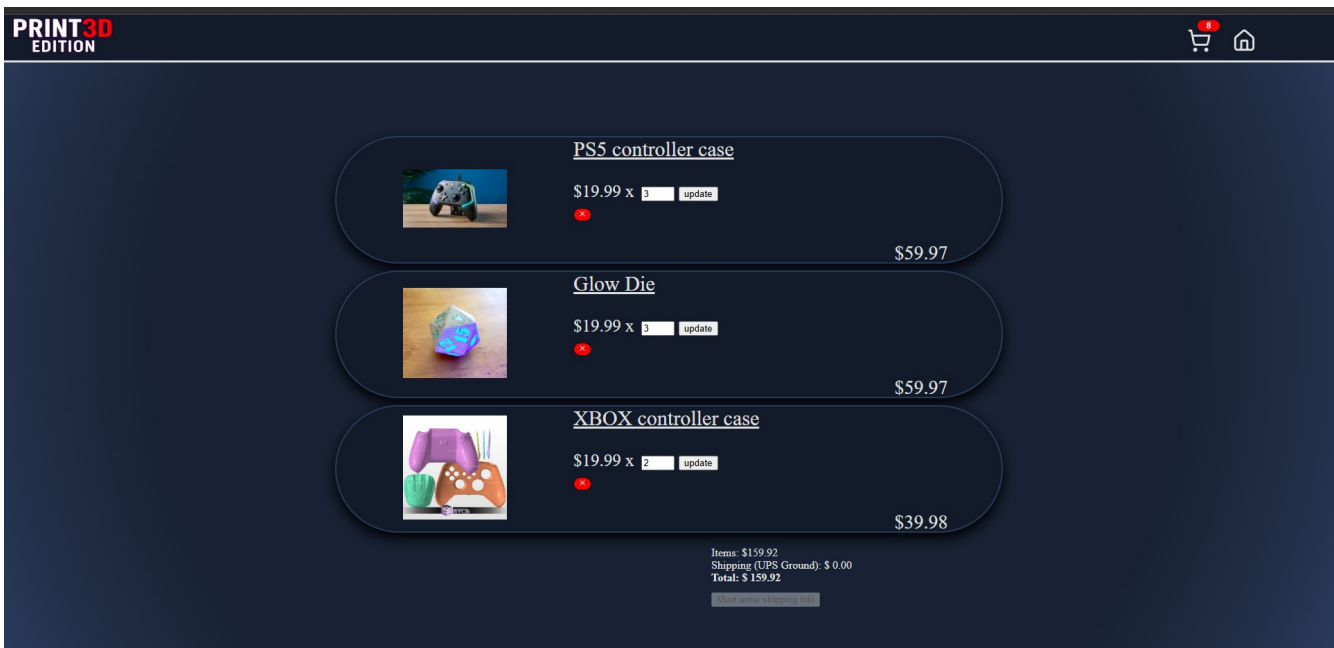
Landing page:



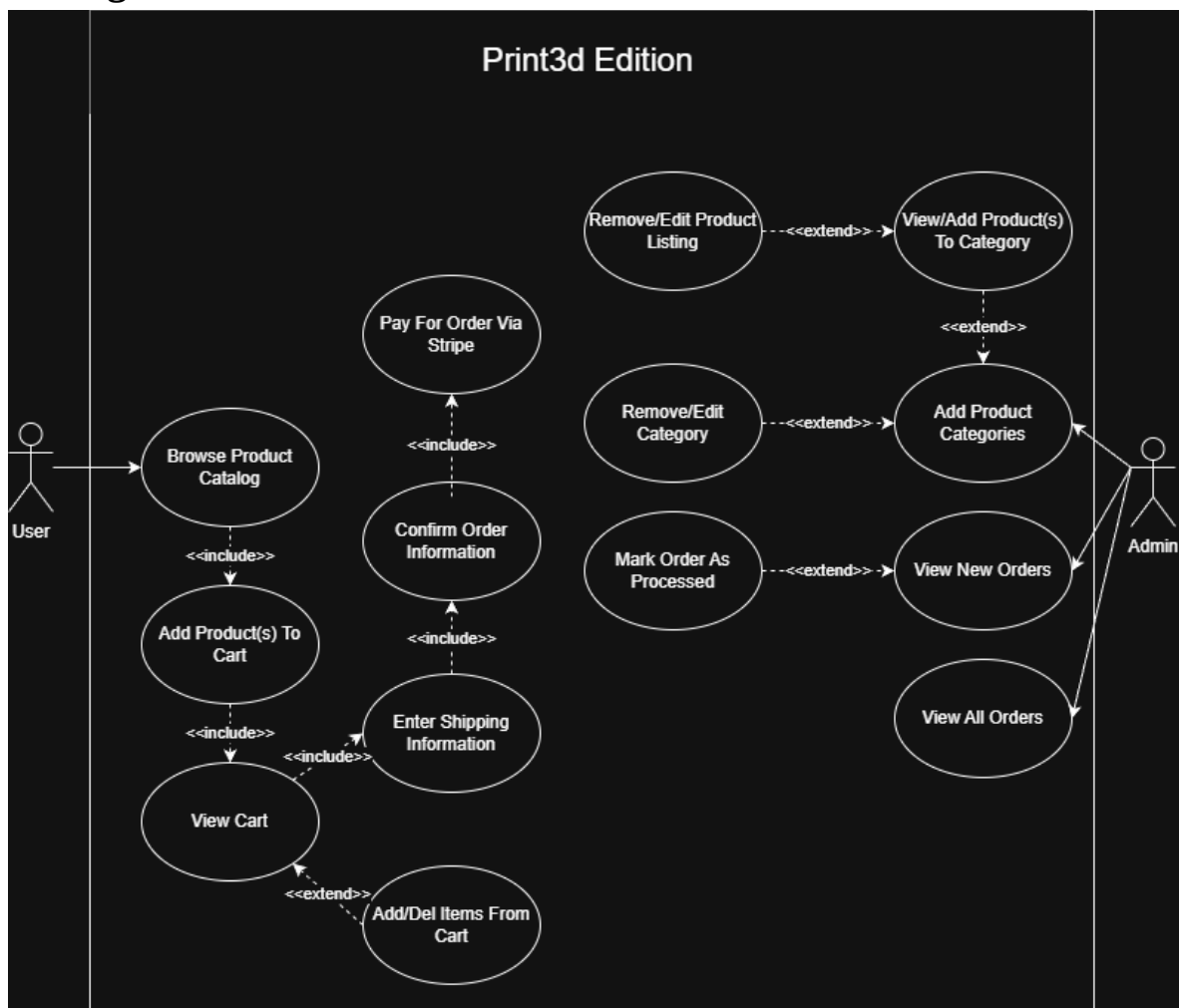
Product page:



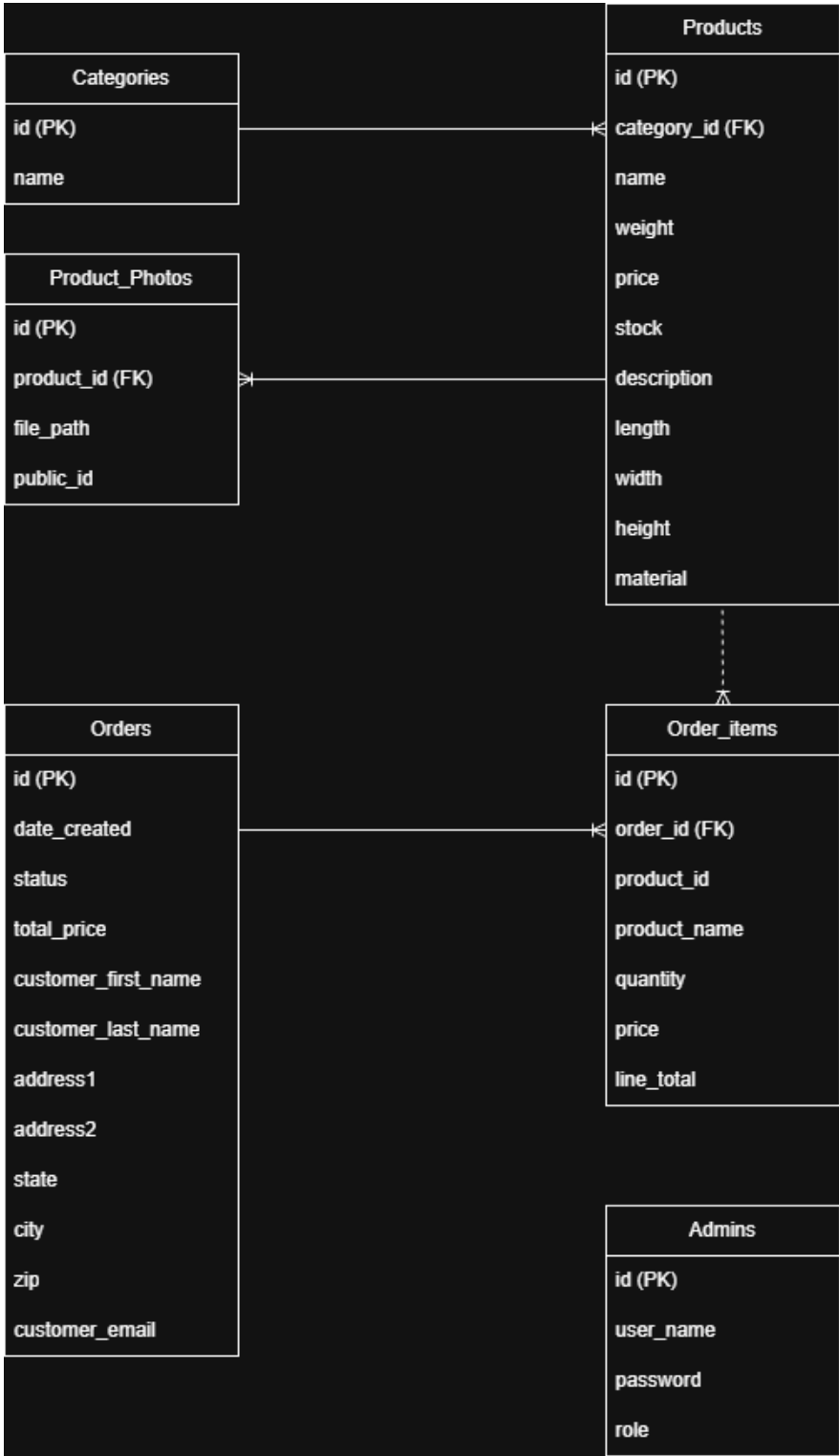
Cart view:



UML Diagram:



Database Schema:



Known issues being fixed:

- Product prices being stored in the database as a double value. This has caused slight differences in listed price vs price charged at checkout. Working on converting the price in the database with its value in pennies as an integer and converting this value accordingly in the back end logic.
- The UPS API is running in a “sandbox” mode. This mode limits values allowed for testing, like states for example. This has made it difficult to test the address confirmation with 100% certainty and will be switched to full access in the future.

To-Do:

- Polish with the admin tool’s UI has been pushed aside for higher priority functionality, but is needed. Specifically with the “view orders” table. I’d like not only a cleaner display, but display options so admins can view the data and have a clear understanding of cost/performance of their products.
- Adding HTML to receipts emailed to customers. Receipts are sent in plain text at the moment.
- Adding “request product” function to out of stock products. When a product is out of stock, it is still shown in the catalog with the “checkout” button being disabled. I’d like to change this to navigate to a form that will allow customers to request a product directly and be kept in contact with by the business owners.
- Calculate shipping cost based on order weight and dimensions. The site currently uses flat rate shipping which is doubled if an order exceeds a certain weight threshold or is set to zero if the order’s cost is above a certain threshold. I’d like to implement the UPS API to calculate shipping at checkout based on the address being shipped to and the weight/dimensions of the order.
- Other features that have been discussed with the client but not confirmed include: categories outside of 3D printed products, requesting custom 3D prints using a customers file, showing stickers available as a free gift with every order at checkout.