Summer 2019 Developer Intern Challenge Question

Please complete the following challenge, and provide your thought process/work. You can attach your work in a text file, link, etc. on the application page (it is also really great when things are on GitHub). Please ensure it is easy to follow for reviewers - as someone from our team will look at every submission!

Task: Build the barebones of an online marketplace.

To do this, build a server side web api that can be used to fetch products either one at a time or all at once.
Every product should have a title, price, and inventory_count.

Querying for all products should support passing an argument to only return products with available inventory.

Products should be able to be "purchased" which should reduce the inventory by 1. Products with no inventory cannot be purchased.

P.s. No need to make a frontend!

Extra credit (100% optional as there are lots of different ways to shine in your application):

Fit these product purchases into the context of a simple shopping cart.

That means purchasing a product requires first creating a cart, adding products to the cart, and then "completing" the cart.
The cart should contain a list of all included products, a total dollar amount (the total value of all products), and product inventory shouldn't reduce until after a cart has been completed.

Extra extra credit (please, only do this if you really want to, honest!):

Bonus points for making your API (at least partly) secure, writing documentation that doesn't suck, including unit tests, and/or building your API using GraphQL.

Demo requirements

All of the functionality of your API should be documented so we know what it does, and how to interact with it.

Tips

While you can tackle this challenge using any language and platform that you want, you'll almost certainly find the work easier and more manageable with the aid of a web development framework (we use the [Ruby on Rails](#) framework at Shopify).