Project Overview

You will develop an application that provides a list of items within a variety of categories as well as provide a user registration and authentication system. Registered users will have the ability to post, edit and delete their own items.

Why This Project?

Modern web applications perform a variety of functions and provide amazing features and utilities to their users; but deep down, it's really all just creating, reading, updating and deleting data. In this project, you'll combine your knowledge of building dynamic websites with persistent data storage to create a web application that provides a compelling service to your users.

What Will I Learn?

You will learn how to develop a RESTful web application using the Python framework Flask along with implementing third-party OAuth authentication. You will then learn when to properly use the various HTTP methods available to you and how these methods relate to CRUD (create, read, update and delete) operations.

How Does This Help My Career?

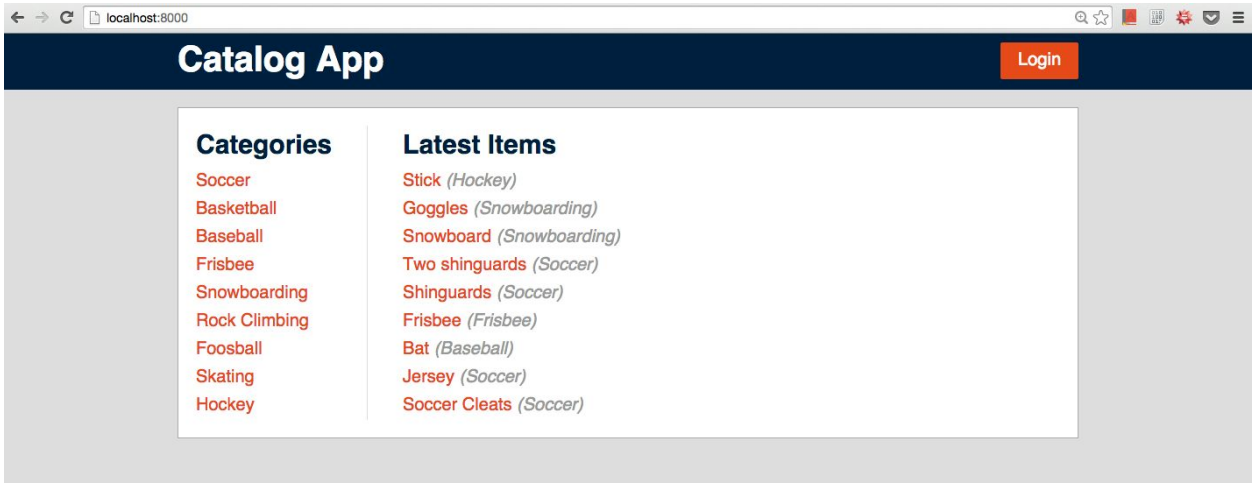
- Efficiently interacting with data is the backbone upon which performant web applications are built
- Properly implementing authentication mechanisms and appropriately mapping HTTP methods to CRUD operations are core features of a properly secured web application

Project Display Example

Note: The screenshots on this page are just examples of one implementation of the minimal functionality. You are encouraged to redesign and strive for even better solutions.

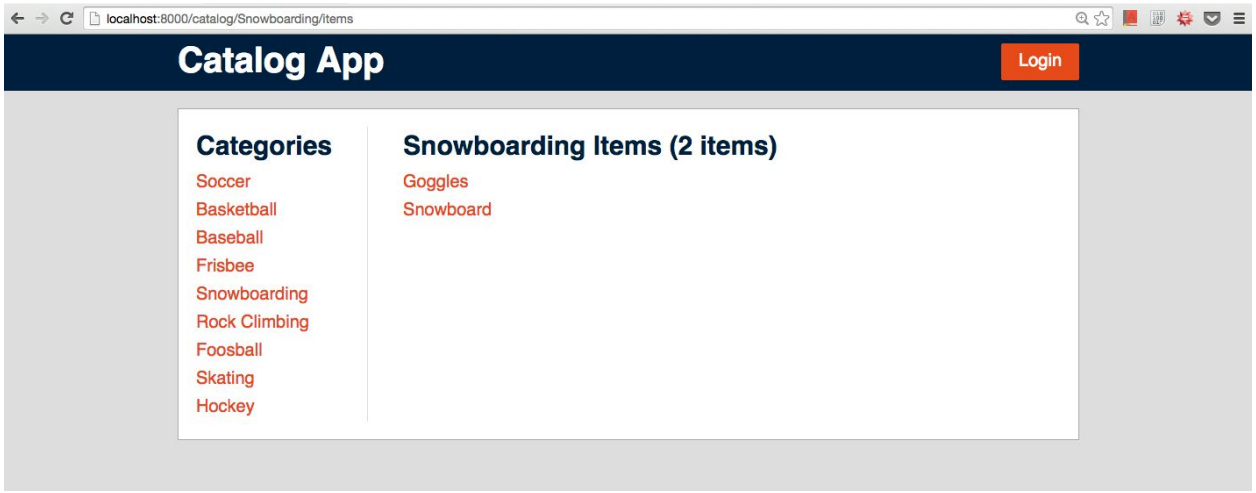
The Item Catalog project consists of developing an application that provides a list of items within a variety of categories, as well as provide a user registration and authentication system.

In this sample project, the homepage displays all current categories along with the latest added items.



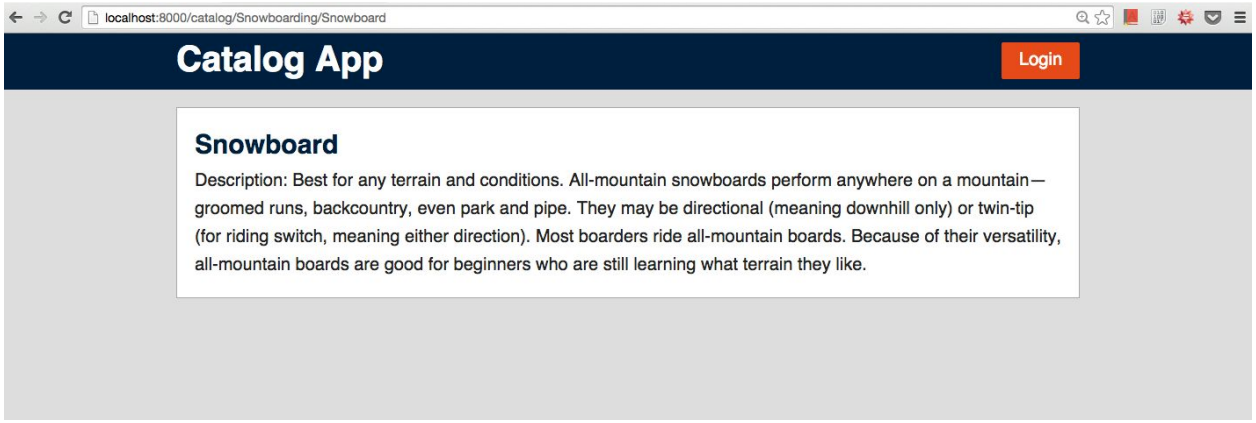
http://localhost:8000/

Selecting a specific category shows you all the items available for that category.



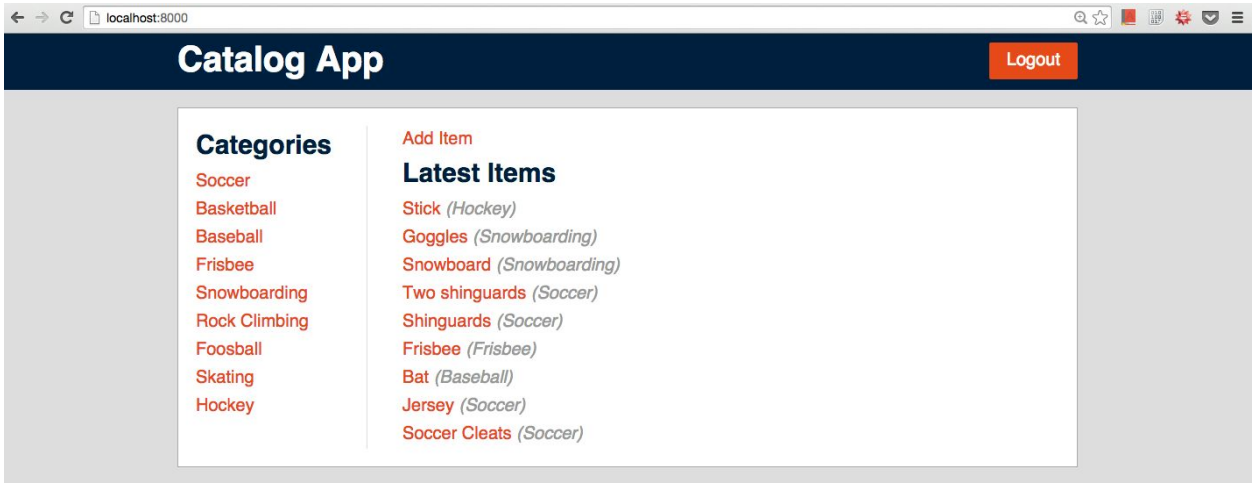
http://localhost:8000/catalog/Snowboarding/items

Selecting a specific item shows you specific information of that item.

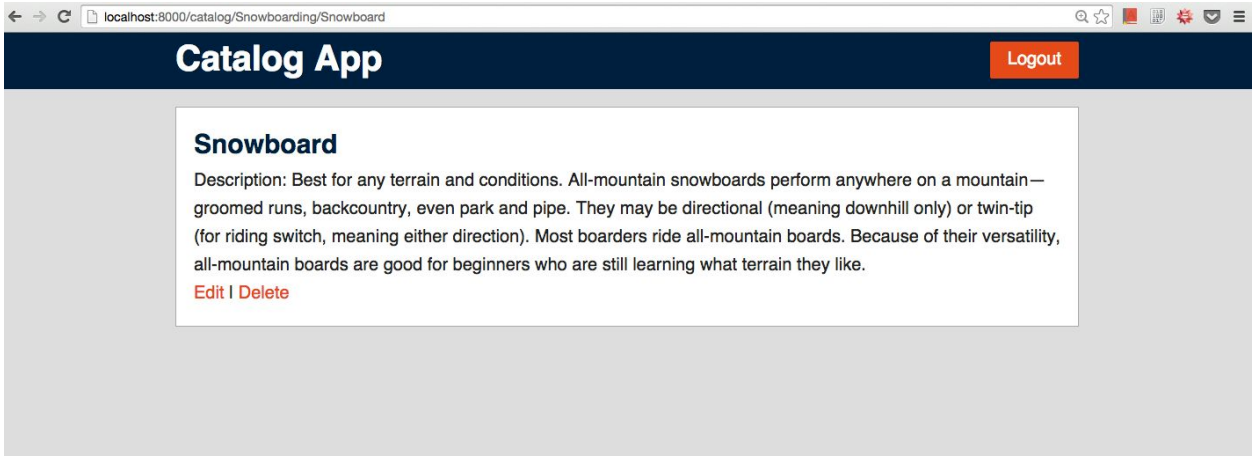


http://localhost:8000/catalog/Snowboarding/Snowboard

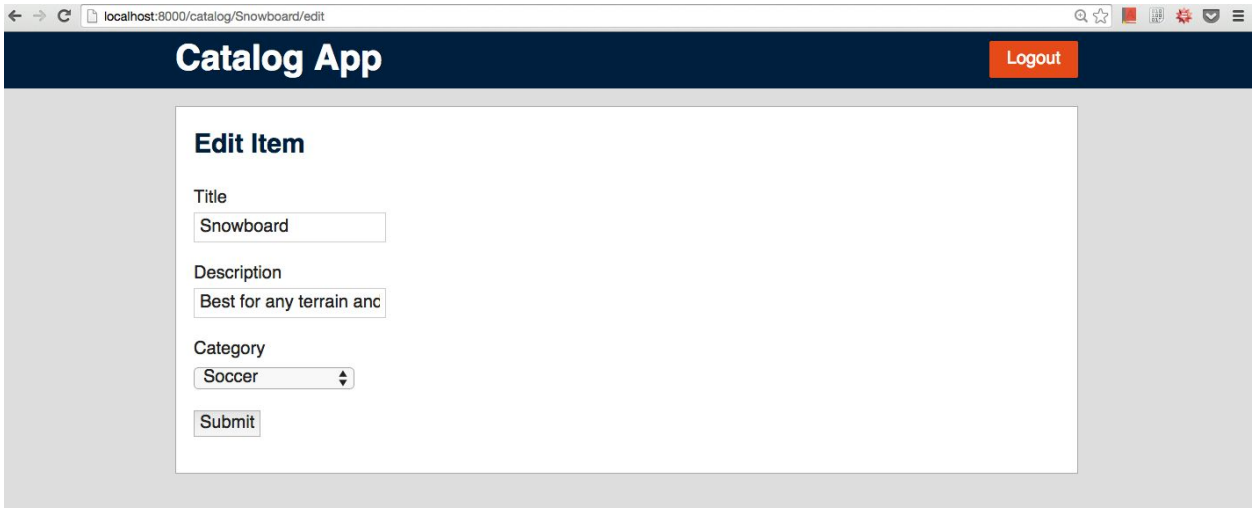
After logging in, a user has the ability to add, update, or delete item info.



http://localhost:8000/ (logged in)



http://localhost:8000/catalog/Snowboarding/Snowboard (logged in)



http://localhost:8000/catalog/Snowboard/edit (logged in)

http://localhost:8000/catalog/Snowboard/delete (logged in)

The application provides a JSON endpoint, at the very least.

http://localhost:8000/catalog.json

How will I complete this project?

This project is connected to the Full Stack Foundations and Authentication and Authorization courses, but depending on your background knowledge you may not need the entirety of both courses to complete this project. Here's what you should do:

1. Install Vagrant and VirtualBox
2. Clone the fullstack-nanodegree-vm
3. Launch the Vagrant VM (vagrant up)
4. Write your Flask application locally in the vagrant/catalog directory (which will automatically be synced to /vagrant/catalog within the VM).
5. Run your application within the VM (python /vagrant/catalog/application.py)
6. Access and test your application by visiting http://localhost:8000 locally

Get started with this helpful guide.