CMPT470

Project Overview
SFU Trade

Group 14
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Introduction

Our project is SFU Trade. We aim to provide SFU students with a reliable web application that allows them to buy and sell items locally. Our application is really easy and convenient to use. The site is designed to be similar to amazon, kijiji, craigslist, etc. The aim is to provide a simple to use but reliable trading application that includes all necessary features that sellers and buyers will be looking for. Users can browse items through our directory, or find items near them by geolocation.

Features

Authentication and Authorization

Customers can browse our application and gain some general idea about sale items without login. But we add authentication and authorization method to ensure that users are logged in. We use Passport, an authentication middleware for Node.js which allows us to authenticate users through their choice of authentication. Users can sign up with their email and name, but to increase flexibility and to accommodate the rise and convenience of social media, we have included Facebook login. Alternatively, users can sign up as GitHub user (this was an extra feature based on the fact that we are all computer science students). After login, the user can update their profile to include their age, gender and location.
If a user tries to access a page that requires them to be logged in (i.e. Buy page), they will be redirected to the login page. This prevents illegitimate buyers from making purchases of items without a legitimate account. We allow for interactivity through the chat and email messaging system but also allow users to keep their information private.
We also enable many security checks including csrf.

Item Database

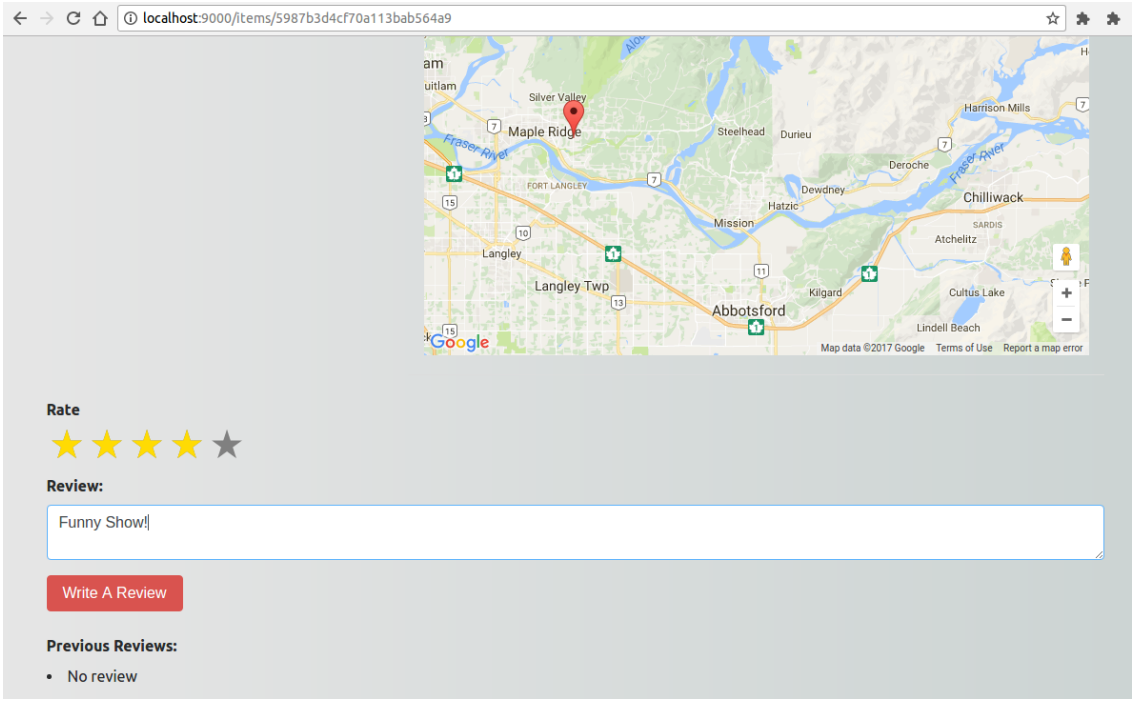
Adding items to the site is simple and quick. Users only have to enter a few details about the item and photos before submitting. Once submitting the item is instantly added and the site is updated. If the seller wishes to delete the post they can automatically do so without any trouble. To increase security only members of the site can make purchases, there is no guest checkout.

Viewing Items

From the directory page of our site, you can browse all the items currently for sale. Items are well sorted by alphabetical, popularity (Ranked by view count), and price (ascending or descending). From this directory page, you can preview the image associated with the item. You can also hover over the image to zoom to see detail, or click left/right arrow to look different images. That means, if user upload multiple files, then you can see images in carousel. If there is only one file, we support image zooming feature.

Reviewing and Rating Items

Users can also review the item and leave a comment.



Purchasing Items

Our site allows users to message sellers as well if they would like to meet in person to purchase something. If a seller is far away, or the user does not want to meet them, they can use the online checkout to make a purchase. Items can be purchased by any logged in user who is not the seller. (That is, our site will check to make sure that the buyer is legitimate, and sellers cannot “buy” their own products to increase popularity of an item).

Wishlist

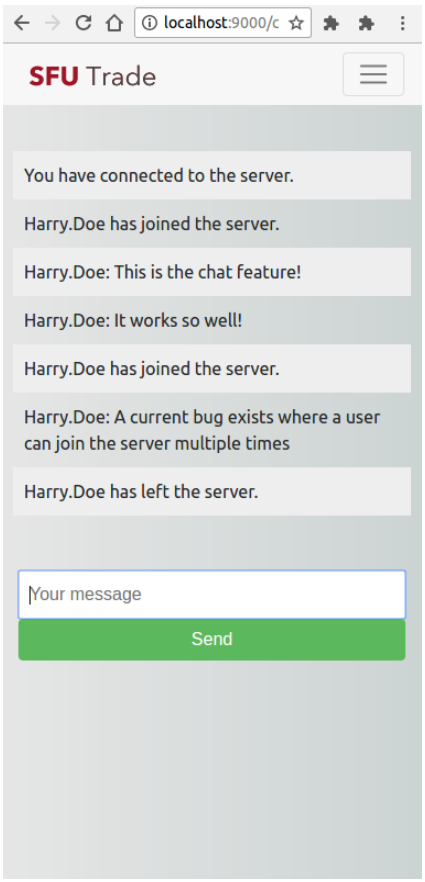
Users can track items they are interested in by adding them to their wish list. Items can be easily removed from the wish list as well. This feature is helpful because it allows users to take advantage of our price history tracking. Because our site tracks the price history of items, users can keep watch by adding the item to the wish list, this creates a better user experience so they do not have to keep searching for the products they want. It is far more convenient.

Transactions

User can view items they have previously purchased at their Transactions page (localhost:9000/transactions)

Messaging System

The chat system allows users to discuss items being sold on the site. When user clicks “chat” on the header, they are taken to a chat system which allows them to exchange messages in an IRC like chat.



Google Maps - Geolocation

Our site can determine where in the world the user is based on their IP address. From this information, our site can provide the user with items that are nearby to them, should they prefer to buy an item in person as opposed to online. And users are able to click the icon on map, directly to see which item is available in their preferred location.

Work Distribution

Everyone works together to polish our site. Below is the detail list.

Arlene:

- User Authentication / Registration (fb/github)
- Home Page (carousel, category list)
- Item Directory (category list)
- Image zoomer
- Facebook + Github login
- Security (contact form validation)

James

- MVC framework
- Item Directory (sort, pagination, list)
- Item Detail Page (layout, price history)

- Category Directory
- Search + Navigation bar
- Security (form validation, CSRF)

Fara
- User Authentication / Registration
- Security (form validation, authorization)
- User Profile
- Item Buy Page
- Item Detail Page (review + rating)
- URL Slug
- User Transactions
- Set up initial vagrant

Josh
- Maps
- Chat system
- Email messaging

Raissa
- Maps
- Wishlist
- Email messaging
- Poster
- Home page trending

Technique

To construct our site, we use NodeJS/ExpressJS, jQuery and MongoDB. We also use some middleware, such as passport, mongoose, multer… Login and registration was built with the passport framework. For the chat system, Socket.IO was used to emit and listen for messages and display them on each user's viewport. The map system was implemented with GoogleMaps API. We also use nodemailer to allow user sends email to seller.

Current Available Alternatives

There are lots of similar shopping websites. Kijiji and Amazon are the two which very successful and famous. Both of them are well organized and easy to use. They have better appearance and more content then our application, but our website is much more focus on SFU students/stuffs. Both Amazon and our website has a chat room, which aimed at providing user a good customer experience, but our site chat is not as mature as Amazon's. Both of the two chat rooms cannot save the chatting history. But the different is, Amazon's dialog box is the communication method between user and customer service. Our chat shares information between all users who are in the chat room at the same time.

Future Work

In my opinion. I would like to add virtual money system and bidding system to our project. It is also feasible to add tracking system after user make a buy option.

What's more, we could model an interactive online classified site as opposed to a social media platform. This creates a better user experience by not cluttering the main goals.