SW Engineering CSC648/848 Section 01 Fall 2018

GatorTrade

Team 04 | local

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Milestone 4

Submission Date	History
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1. Product Summary

We are coming to market with our product GatorTrade. It is a buy and sell website designed for SFSU students for selling, listing, and buying items. Below are the features our users can look forward to on our platform.

- A robust search engine allowing for quick searches based on any part of a product. Whether it be household items, electronics, books, events, services, apparels.
- Advanced filters that allow the user to quickly refine search based off price, locations, and categories.
- Easy signup setup for a user who wants post their products or post their services, he/she will be able also access the user dashboard, which contains all of their posts and messages from interested buyers.
- For safety and convenience reasons designated safe place locations are provided on SFSU campus to exchange goods for money.
- Clear and concise layout of detailed information on the product description, price and locations.

What we think is unique about out product is its ease of use, through good and clean design. The website is free of clutter from niche tools and advertisements, allowing users to cut straight to finding products and services. We believe this fosters a more efficient buy and sell website for SFSU Students.

Website: https://gator-trade.herokuapp.com/

2. Usability Test Plan

Test Objectives:

The objective of our usability test plan will be to identify specific user interactions with the website that could be improved for the sake of general usability. Since our website is in it's beta, it's important to find out the weaknesses in its usage flow now rather than when it is launched. Objective of this test is to perform usability test on the search panel.

We will be conducting a test that will send a beta user through a series of usage flows touching on the main components of the website. These components will be usage of search, filters, and posting a item or service on the website. Success factors will be based on the likert scale, test users will be asked how they **felt** about the process(s). From this we will be able to judge the general usability of the website, and more importantly on the key areas of weaknesses within the website.

System Setup:

A laptop with internet capabilities and Google chrome, Mozilla Firefox, Safari, or another internet browser.

Test Plan:

- **Purpose:** The purpose of this plan is to identify key areas of weaknesses within our website when it comes to general usability.
- System Setup: There will be two versions of this test. Desktop browser and Mobile browser. For the sake of consistency we will be looking to use Chrome Browser (latest two versions only) on the desktop, and Safari browser (latest two versions only) for mobile. This allows us to test with the most popular configurations within the college students.
- Starting Point: The starting point will be the homepage of the website.
 - Located at: https://gator-trade.herokuapp.com/
- **Tasks Description:** There are three important tasks in order to successfully test out the search function.

Task	Description
Task	Choose "Events Category"
Machine State	Category Selected, Search Query Typed In
Benchmark	Completed in 5 Seconds

Task	Description
Task	Find Coffee Pot
Machine State	Empty Search bar
Benchmark	Completed in 5 Seconds

Task	Description
Task	Search for "Books" in "Background" Category
Machine State	Category Selected
Benchmark	Completed in 5 Seconds

Completion Criteria: User has successfully done the following:

- Found all posts in "Events" Category
- Found all posts related to "Coffee Pot"
- Has gotten a search result based off the users choices. Example: Books.

User Satisfaction Questionnaires:

•	The G	UI was simple to understand (select one):
	0	Strongly Disagree
	0	Disagree
	0	Neither agree nor disagree
	0	Agree
	0	Strongly Agree
	0	Comments:

•	It was	easy to search for items posted (select one):
	0	Strongly Disagree
	0	Disagree
	0	Neither agree nor disagree
	0	Agree
	0	Strongly Agree
	0	Comments:
•	The re	sults displayed were appropriate to the category search you selected (select one): Strongly Disagree
	0	Disagree
	0	Neither agree nor disagree
	0	Agree
	0	Strongly Agree
	0	Comments:

3. QA Test Plan

QA test plan is an investigation activities that is conducted to provide stakeholders with the information about the quality of the developed software product or service. This test plan is done in order to determine some of the features of Gator Trade if they are properly functioning or not.

Test Objectives

- To search an items as registered and unregistered users.
- To create an account and log in.
- To test the messaging features between buyer and seller.

Hardware and Software Requirements

• Chrome and Safari Browsers(latest two version only).

Features to be tested

Test Number	User Type	Test Setup Description	Test Input	Expected Results	Test Status
1	Non- Registered User	Setup: Open up the following link in the browser: http://gator-trade.herokuapp.com/ Description: User shall be able to search for items in search bar	Search Bar: Input: "Books"	Page shows 2 books for sale.	Pass
2		Setup: Open up the following link in the browser: http://gator-trade.herokuapp.com/	Categories: Clicked on: "Apparel"	Takes you to page shows 2 apparel items being sold.	Pass

	Description: User shall be able to click on categories from home page			
3	Setup: Open up the following link in the browser: http://gator-t rade.heroku app.com/	Recent Posts: Clicked on: "Economics Tutor"	Takes you to the item's detail page where you are able to message the seller.	Pass
	Description: User shall be able to see and click on the four most recent posts			
4	Setup: Open up the	Item's Detail	Page is	Pass
	following link in the browser: http://gator-t rade.heroku app.com/	Page: Click on item taking you to item's detail page. User enters a message below the item	redirected to SignUp page	

5		Setup: Open up the following link in the browser: http://gator-trade.herokuapp.com/ Description: User shall be able to register	Sign Up Page: Click the sign up button on the top right. User fills out all information required and clicks on "Create Account" button	Successfully Registered	Pass
6	Registered User	Setup: Open the following link in the browser: http://gator-trade.herokuapp.com/ Description: Users shall be able to login into the system	Login: Click the login button on the navbar User requires SFSU email and password then click on "SIGN IN" button.	Successfully Logged In	Pass
7		Setup: Open the following link in the browser: http://gator-trade.herokuapp.com/ Description: Users shall be able to message the	Item's Detail Page: Message: "I am interested in your item". User: Clicks on "Send Message" button.	Message sent	Pass

		seller of the interested item.			
8	Registered User(Seller)	Setup: Open the following link in the browser: http://gator-trade.herokuapp.com/ Description: User shall be able to post items for sale.	Post: Click the post button on the top left corner of navbar User fills out all the detailed information of the item/service and clicks on "Post Item For Sale" button	Item posted	Success

4. Code Review

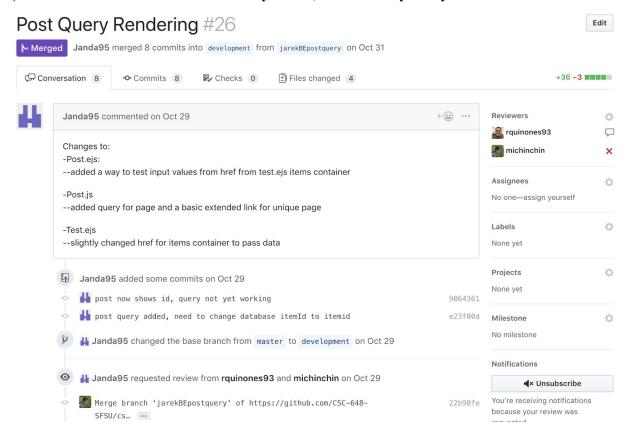
a) Coding Style

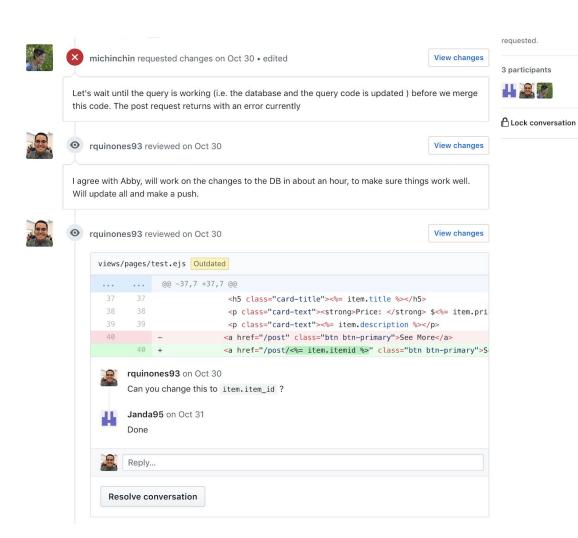
- Variables are defined in snake case, defined with 'let'
- Constants are defined in UPPER CASE SNAKE CASE, defined with 'const'
- All variables and constants are given relevant names to the data they contain
- New code blocks start { braces on the same line as the conditional statement / function declaration, and end } brace after the last line of relevant code
- ES6 Arrow Functions (=>) are used for all Back End JS functions
- Comments are encouraged, and are mainly on HTML code, but Back End code is written with relevant function and variable names, so that code is self documenting

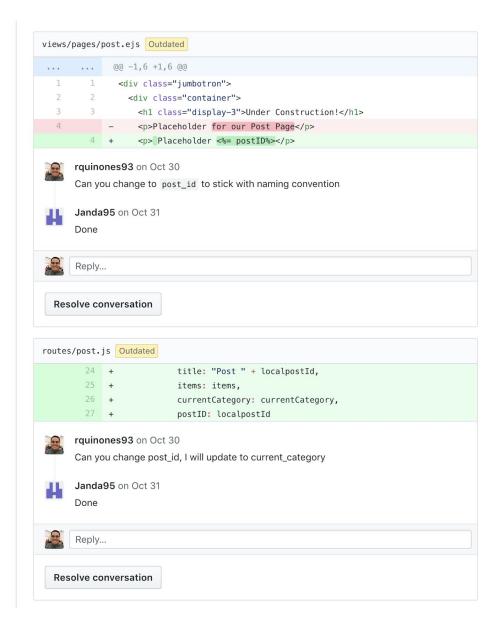
- Code Organization

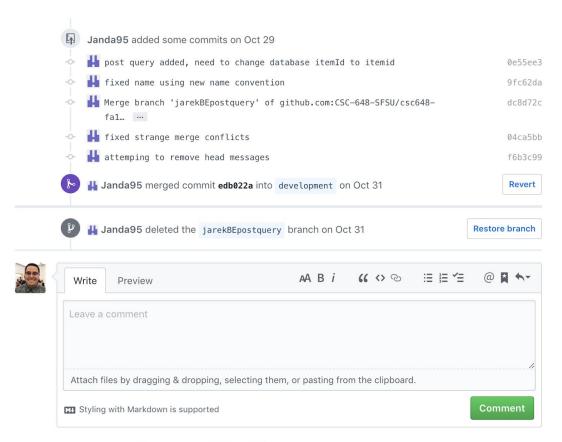
- /auth Code dealing with user login & authentication, proper authentication on functions needing a user to be logged in or an admin.
- /database Code dealing with queries to the Database. Functions are exported, where the Back End team can import exactly which functions they need and nothing more.
- /migrations Database migration files that properly set up Database tables.
- /models Database model files that properly set up relations between tables.
- /routes Node.js code that determines which page is rendered and what DB queries are made. Business logic.
- /seeders Database files that seed Database with dummy data.
- **/validation** Custom Back End form validation files.
- /views Front End Code
- /views/partials Reused pieces of code that exist on each page

b) Code Peer Review - Code written by Jarek, Reviewed by Abby & Robert









Q ProTip! Add .patch or .diff to the end of URLs for Git's plaintext views.

5. Self-Check on Best Practices for Security

- Passwords are encrypted and saved using the BCrypt Node module.
 - User profile pictures & item pictures are uploaded to Cloudinary and are given a hard to assume, public URL in order to view on the site. The URL does not allow any users to access the Cloudinary storage website, just view the image. User assets are secured.
 - SQL code injection prevented through use of literal executions that are validated on pages when passed.
- Organization techniques for readability and functionality implemented where possible when excess code or repeated code deemed necessary.
 - For Example: Database connection and Queries organized into groups and indexed to give clear description of their purpose and displaces code away from main JavaScript routing files. Easy to see what is happening and where to look for database queries.
- Routes (JS), EJS, Database Connection, Configuration, and Dummy Database Variable files are separated and used for organizational depth and minimizing code needed to be displayed to user.
- Passport for personal user access has been implemented so users only can see information regarding them and not another users. Makes use of user sessions and stores them in a way that users are unable to change values to access other user's accounts
- Passport authentication methods also implemented on various functions that a user cannot complete until logged in: Creating a new post, Messaging a Seller, Accessing Admin Console (Logged in & Admin), Accessing User Dash. If user is not logged in, they are redirected to the Login Page and an error message is Flashed.
- Front End form validation for login and user creation forms, Back End Validation in progress.
- Sales items are saved in Database

6. Self-Check: Adherence to Original Non-Functional Specs

High-level non-functional specifications

- 1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in M0 (some may be provided in the class, some may be chosen by the student team but all tools and servers have to be approved by class CTO). DONE
- 2. Application shall be optimized for standard desktop/laptop browsers e.g. must render correctly on the two latest versions of all major browsers: Mozilla, Safari, Chrome. DONE
- 3. Selected application functions must render well on mobile devices ON TRACK
- 4. Data shall be stored in the team's chosen database technology on the team's deployment server. DONE
- 5. No more than 50 concurrent users shall be accessing the application at any time ON TRACK
- 6. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users. ON TRACK
- 7. The language used shall be English. DONE
- 8. Application shall be very easy to use and intuitive. ON TRACK
- 9. Google analytics shall be added ON TRACK
- 10. No e-mail clients shall be allowed DONE
- 11. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated. DONE
- 12. Site security: basic best practices shall be applied (as covered in the class) DONE
- 13. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development DONE
- 14. The website shall <u>prominently</u> display the following <u>exact</u> text on all pages "SFSU-Fulda Software Engineering Project CSC 648-848, Fall 2018. For Demonstration Only" at the top of the WWW page. (Important so as to not confuse this with a real application). ON TRACK