SW Engineering CSC648/848 Fall 2018

UniTrade

Team 10
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1. **Product Summary:**

Name of product:

Unitrade

Final Functions:

1. Home page displaying welcome message and the most recent items
2. Browse by category
3. Search by text
4. Search within category
5. Sort by price or date
6. Display the number of search results
7. Register
8. Login
9. List items approved and pending in user dashboard
10. List messages sent or received in user dashboard
11. Compose a message to other users in user dashboard
12. Create an item for sale
13. Buy an item by sending a message to the seller
14. Delete an item
15. Approve or delete items on the admin site
16. Remove a registered user on the admin site
17. List all the messages on site on the admin site

What is Unique in Our Product:

Our product is exclusively designed to give ease to SFSU students by allowing them to buy items for classes and selling off what is no longer needed. We give our users the function to search for items for a specific class. This will return to the user all items which have the class ID or name in their title or description. Students are often busy with school and with their personal life, so it is necessary that we can provide an quick and simple way for them to get their needs.

Product URL:

http://onlinestore-env.us-west-1.elasticbeanstalk.com/

2. **Usability Test Plan:**

Test Objective:

The purpose of this test is to see if it is easy for a new user to search for an item in UniTrade. The design of UniTrade must be simple and easy to use for our target users which are mainly college students of San Francisco State University. Since our target users are often busy with classes, we prioritized making the process of searching and buying an item fast and simple.

We will choose a select students in SFSU to be the testers since they are our target audience. The testers will be given a task to search for a laptop. These students will be monitored and timed from the start of the task (UniTrade Index Page) till the completion of the task (Laptop is surfaced in results)

After the task is completed, they'll be given a quick survey regarding the overall user experience of the website. We will use the likert scale template to take the user input for each question, while leaving a section for comments or suggestions.

The results of the questionnaire will give us an idea of the overall functionality and efficiency of the design.

Test plan:

The tester will be provided a laptop to use with the site opened and loaded to the index page.

TASK	**DESCRIPTION**
Task	Search for a laptop.
Default State/Starting Point	Index Page
Successful Completion Criteria	Laptop surfaces in results.
Benchmark	Completed in 15 seconds.
URL	http://onlinestore-env.us-west-1.elasticbeanstalk.com/

Questionnaire:

UniTrade Search	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
It is easy to spot the search field.					
Searching for an item in Unitrade is easy.					
Searching for an item in UniTrade surfaces accurate results.					
The load time for search is fast.					
The image quality of the searched item is fantastic.					
The font size is perfect.					
I would recommend UniTrade to my friends.					

Comments/Suggestions:

3. **QA Test Plan:**

Test Objective:

Test: Search input response for regular keyword, spaces input, and special characters.
Not Test: Search with category filter.

HW/SW setup:

A computer device with functional keyboard, mouse cursor, monitor, and power.
wifi: connected, and be able to access internet.
url: http://onlinestore-env.us-west-1.elasticbeanstalk.com/
Browser1: Chrome
Browser2: Firefox

Feature to be tested:
% like search, special characters input response, and spaces input response.

Test Plan:

Test Number	1
Test Field	Search Bar
Test Title	Test search function for regular input
Test Description	Test the % like search function return related output result with regular input.
Test Procedure	1. Verify the Category dropdown shows "All" 2. Enter "book" in input text field 3. Click the "Search" button
Expected Output	Get 3 items, all of them are related to book.
Result on Chrome	Get 3 items: “The Code Book - Simon Singh”, "GRE Book Bundle" and "Introduction to Algorithm", which all have “book” in their title or description.
Result on Firefox	Get 3 items: “The Code Book - Simon Singh”, "GRE Book Bundle" and "Introduction to Algorithm", which all have “book” in their title or description.
PASS/FAIL	PASS
Test Number	2
Test Field	Search Bar
Test Title	Test search function for space input
Test Description	Test search function return all results when input contains only spaces.

Test Procedure	**Setup:** 1. Verify the Category dropdown shows "Books" 2. Enter 5 spaces in input text field 3. Click the "Search" button
Expected Output	Get 12 results, which is the total number of books that have been posted for sale under the Books category.
Result on Chrome	Get 12 results.
Result on Firefox	Get 12 results.
PASS/FAIL	PASS
Test Number	3
Test Field	Search Bar
Test Title	Test search function for special characters input
Test Description	Test search function return input invalid warning message while input contains special characters.
Test Procedure	1. Verify the Category dropdown shows "All" 2. Enter "bo%" in input text field 3. Click the "Search" button
Expected Output	"Please don't include special characters." message appears.
Result on Chrome	See the message "Please don't include special characters." appears.
Result on Firefox	See the message "Please don't include special characters." appears.
PASS/FAIL	PASS

4. **Code Review:**

The coding style we chose is the reStructuredText docstring format. We use github to perform code reviews by adding comments to the pull requests. An issue is created and then assigned to a group member, once the group is done working on a
task, they create a pull request and then request a review from either the team lead or front end/back end lead. The code reviewer then goes through the code and tests it on their local machine to make sure it's functioning, bug-free and formatted accordingly. If any issues are found within the code, the reviewer comments on the pull request asking the coder to make required changes. Once changes are made and the code reviewer is content with the changes the pull request is then approved, then the team member can merge the pull request.

The code below is for sorting searched items:

```
<div class = "row">
        <!--Sort-->
        <div class = "col-10">
            <div class = "float-left">
            {% if num_items > 0 %}
            <h5>{{num_items}} results</h5>
            {% endif %}
        </div>
        </div>
        <div class ="col">
            {% if num_items > 0 %}
            <form id ="sortform">
                 
            <div class ="float-right">
            Sort by:
          <select name = sort_value>
              {% if picked_sort == "price"%}
                <option value="price">Lowest Price</option>
                <option value = "-create_time">Most Recent</option>
              {% else %}
                <option value = "-create_time">Most Recent</option>
                <option value = "price">Lowest Price</option>
              {% endif %}
          </select>
                {% if search_keyword != None %}
                <input type = "hidden" name="q" value ="{{search_keyword}}">
                {% endif %}
                <button type="submit">Sort</button>
            </div>
            </form>
            {% endif %}

            </div>
        </div>
```

Below are the comments made by the reviewer regarding bugs and suggested changes

I found two issues:

- After you select "Lowest Price" and click Sort, the selection changes back to "Most recent" (Can you capitalize the "r" in "recent") even though the items have been sorted by price. Can you please persist the selection so that the user knows what the current sorting is?
- When you search by text and then sort, the sorting is implemented on all items instead of the search result items. Can you sort only the search results?

Something to improve if you had time (not necessary):

- Can you remove the sort button so that the results will be sorted just by choosing an option, like how category works?

Once the team member makes changes, they push their code and comment on the pull request with a screenshot to corroborate the changes.

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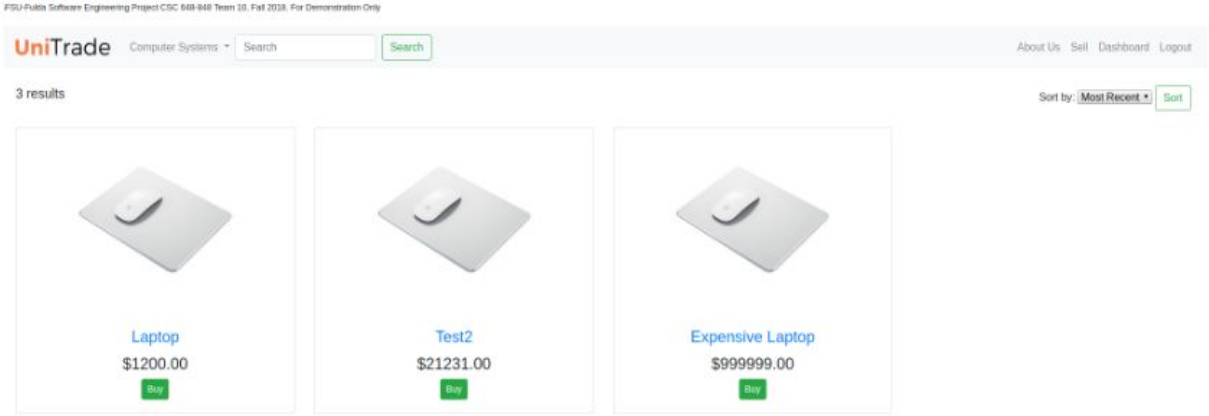
fixed issue

see reference:



5. **Self-check on best practices for security:**

Major assets being protected:

- User information - passwords, emails
- Posts of Items

Password encryption:

- Passwords are encrypted via Django built-in function

Input data validation:

- Search bar input is validated. Any input with special characters other than alphabets and numbers are considered invalid. Also, the search bar input cannot exceed 40 characters.
- {% if search_keyword|length < 40 and has_special_characters == None%} is used in template to check if the number of characters is less than 40.
- The search_string() method in veiws.py of our onlinestore app is used to check if there's any special characters in the search input.

6. Self-check: Adherence to original Non-functional specs:

1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in M0, which include PostgreSQL 9.4.17, Apache 2.4.33 and Python 3.6.4. **DONE**
2. Application shall be optimized for standard desktop/laptop browsers and shall 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. **DONE**
4. Data shall be stored in Amazon Web Services. **DONE**
5. File size in no time shall exceed 3 MB. **ON TRACK**
6. No more than 50 concurrent users shall be accessing the application at any time. **DONE**
7. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users. **DONE**
8. The language used shall be English. **DONE**
9. Application shall be very easy to use and intuitive. **DONE**
10. The Systems visual response time shall be within 5 seconds. **DONE**
11. Google analytics shall be added to analyze visitor data. These include visitor clicks, name and email of registered users which shall ONLY be used for google analytics. **DONE**
12. No email clients shall be allowed. **DONE**
13. Pay functionality shall not be implemented nor simulated. **DONE**
14. Site security: basic best practices shall be applied (as covered in the class). **DONE**
15. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development. **DONE**
16. The website shall prominently display the following exact text on all pages "SFSU-Fulda Software Engineering Project CSC 648-848, Fall 2018. For Demonstration Only" at the top corner and the website logo in the navbar. (Important so as to not confuse this with a real application). **DONE**