

Final Project for SW Engineering Class CSC 648-848 Fall 2018

UniTrade

Team 10

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Milestone 5
December 16, 2018

URL

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

Product Summary

Name of product:

Unitrade

Final Functions:

1. Browse items by category
2. Search for items by text
3. Sort items by price or date
4. Display the number of search results
5. Register
6. Login
7. List approved and pending items on user dashboard
8. Users can delete their own items from the user dashboard
9. List messages sent and received on user dashboard
10. Compose a message to other users from user dashboard
11. Create an item for sale
12. Buy an item by sending a message to the seller from the item detail page
13. Approve or delete items on the admin site
14. Remove a registered user on the admin site
15. 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 and sell items and post event information. We give our users the function to search for items by text and sort them by posted date or price. Students can also search for class related items by class name or ID. This will return to the user all items that have the class ID or name in their title or description. Students are often busy with school and tight with money, so it is necessary that we can provide a quick and simple way for them to purchase or sell items at affordable prices.

Product URL:

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

Milestones

UniTrade

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Milestone 1

September 30, 2018

Created on

September 25, 2018

Revised on

October 12, 2018

1. Executive Summary

Are you a college student at SFSU looking to make some quick cash? Did you wait too long into your semester to decide that you needed that textbook and need to get it the quickest and cheapest way possible? Are you going home for the summer and need to get rid of extra baggage quickly while making money from it? With UniTrade, all of this is possible. UniTrade is an exclusive website that students can use to buy or sell items to their fellow classmates. We all know that Ebay and Amazon are useful services, but you have to pay for things such as shipping costs as well as additional fees for faster shipping. UniTrade aims to make your college life easier by getting you the things you need efficiently and at an affordable price.

UniTrade is a platform for people to trade on campus. Users can search, browse items by categories, post items for sale, and send messages between users and sellers to set times and locations for trade. Our advantage is that users can search by class names (i.e. SFSU students can search for textbooks for their specific class). This makes life easier for the students, faculty, or anyone associated with the university by helping them find what they need within their own community without burdening them with unnecessary fees they would have to pay elsewhere. UniTrade is a secure site and will not tolerate inappropriate postings. Our admin must investigate and approve a post based on its credentials. Categories include textbooks, school supplies, clothing, furniture, things college students need.

The UniTrade team consists of motivated undergrad and graduate computer science students who are passionate in designing great web applications. We aim to deliver efficient, easy to use software that makes the users' browsing experience simple and convenient.

2. Personas and Use Cases

Personas:

Carrie (Persona 1):



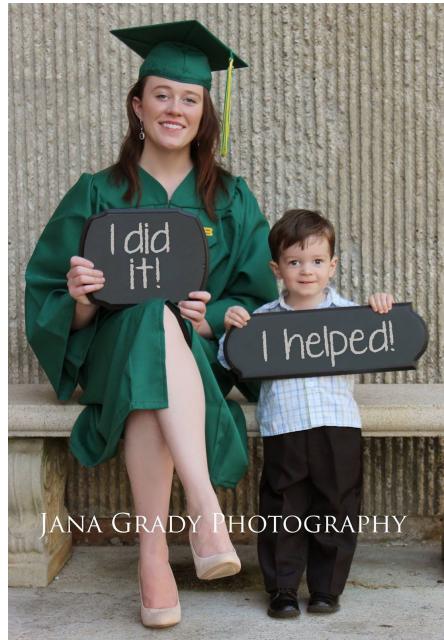
- Decent tech skills.
- Only has small windows of breaks (Max 10 minutes)
- Doesn't want to be late and make her friends wait for her
- Frequent user of UniTrade
- Hates waiting in line in the bookstore

John (Persona 2):



- Experienced and skilled with technology
- Wants to get things done fast to work on homework
- Stressed from school and work
- Frequent user of UniTrade
- Full-time admin of UniTrade

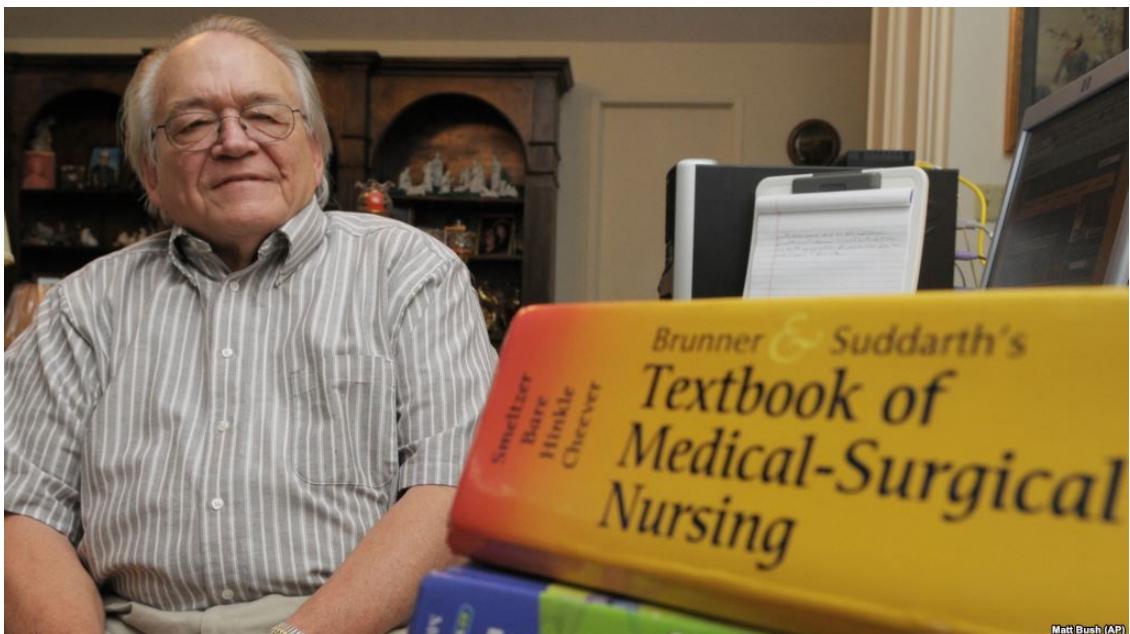
Inori (Persona 3):



JANA GRADY PHOTOGRAPHY

- Single mom
- Poor tech skills
- Little to no time in her hands
- Doesn't like giving out too much information
- Avoids the use of difficult apps
- Beginner user of UniTrade
- Poor
- Stressed most of the time

Henry (Persona 4):



Matt Bush (AP)

- Hates banks and the use of credit/debit
- Registered user of UniTrade
- Poor tech skills
- Bad Eyesight
- Hates wasting time
- Little to no patience

Artemis (Persona 5):



- Working part-time
- Spends most of her money on food
- Poor
- Skilled in tech
- Registered user of UniTrade
- Frequent user of apps
- Tends to procrastinate

Use Cases:

Use Case 1:

One day, Carrie finishes her essay for history. She wants to sell the book she bought as reference. She opens up her phone, opens up UniTrade and posts her book, but before she could post the item she's prompted by a register screen. After filling in the prompts(Images, Description, Price, Item Name, Category) the item appears on the website. A few days later, she checks her dashboard and sees that a buyer messaged her with his contact information. She contacts him offline to set up a meeting time in school. They meet up and she sells her books.

Use Case 2:

Today is another work day for John. After a hard day at school, he opens up UniTrade, signs in as admin and starts approving posts. The day's work is dull as usual but then he comes

across an unapproved post with an inappropriate image. After double checking, John denies the post saving the company from potential trouble.

Use Case 3:

Inori's professor just announced that she needed a number of expensive books for her class. Pulling out her phone, Inori opens up UniTrade, taps browse and navigates to the books section sorting by price. Finding the book she needs, she sees that it is much cheaper than other websites online. She finds the item and after attempting to message the user, she is directed to a registration prompt screen. She sees that it only requires her name and email, after filling in the required fields. She messages the seller and sets up a schedule to meet. After meeting up, she buys her books for a cheap price.

Use Case 4:

After finishing his semester, Henry decides to sell all his books in UniTrade. He opens up UniTrade in his phone, logs in, and posts his item. After completing the required fields for the item (Images, Description, Price, Item Name, Category). He submits the item and it appears in the Posted Item List in Unitrade. A few days later, he checks the dashboard and finds that a buyer messaged him. They set a schedule to meet up in SFSU, they meet up and Henry sells his books.

Use Case 5:

Artoria spent most of her money on food again and was broke for a couple weeks. Due to this, she wasn't able to buy the required books for her Britain history class. After working overtime for a few hours, she finally has enough money to buy her books. She goes to the school bookstore to buy her books but is horrified to find them out of stock. Even worse, the cashier told her that the next restock is two weeks from now, but she has a paper due a week from now. Pulling out her phone, she opens up UniTrade, logs in, searches for her class, and finds someone selling the book. She goes to the item, messages the person, meets up with them the next day and buys her book.

3. Data Definitions:

Unregistered User: The user has not registered. Unregistered User can only browse on UniTrade.

Registered User: The user is registered to UniTrade. Registered User has all the Unregistered User's privileges and in addition can post items, upload images, send and receive messages to/from other users in UniTrade.

Administrator : The user can review and manage posts on UniTrade. Administrator can approve or delete the post. Administrator won't be able to post or add any post.

Category: Items are categorized in different groups.

Item: The items that users post for sale. Registered Users need to fill in title, price, description, categories and upload images.

User Dashboard: Registered users can view and manage their items and messages on their dashboards.

Admin Dashboard: Administrators can view and manage (approve or delete) the items and messages on their dashboard.

User Profile: User's Profile. Registered User can enter and see their profile data, and upload profile image.

Login : Registered User can login

Logout: Login Registered User can logout from account

Register: Unregistered Users have to register in order to buy or sell. Unregistered Users need to fill the register form with valid email, username, password. Users will not be prompted to register until they post their items for sale or contact sellers to buy.

Message: Registered User can send messages to seller with their contact information.

Search: All Users can search items by categories and keywords.

Status: Item status. To allow the user to know the status of the items they submitted. The status can be pending or approved.

Status - Pending: Status that an item waiting to be approved by Administrator.

Status - Approved: Status that an item approved by administrator and visible on website.

4. Initial List of Functional Requirements:

Unregistered Users:

- 1.1 Unregistered users shall be able to browse through available items.
- 1.2 Unregistered users shall be able to browse by category.
- 1.3 Unregistered users shall be able to sort by posted date and price.
- 1.4 Unregistered users shall be able to search by keyword or by class and keyword.
- 1.5 Unregistered users shall be able to see other items related to their search.
- 1.6 Unregistered users shall be prompted to register or sign in upon confirming to create or buy an item.
- 1.7 Unregistered users shall be able to register.
- 1.8 Unregistered users shall be required to accept terms & conditions upon registering.

Registered Users:

- 2.1 Registered users shall have all of the functions of unregistered users.
- 2.2 Registered users shall be able to login.
- 2.3 Registered users shall be able to access their own dashboard when logged in.
- 2.4 User dashboards shall show all of the items the user has created.
- 2.5 User dashboards shall display the title, status (posted or non-posted), and link of each item.
- 2.6 User dashboards shall contain all messages sent or received.
- 2.7 Registered users shall be able to create an item.
- 2.8 Registered users shall be prompted to confirm to post their item.
- 2.9 Registered users shall be able to edit their item category, describe, add images, and add pricing and/or best offer for their items.
- 2.10 Registered users shall be able to edit their own items.
- 2.11 Registered users shall be able to delete their own items.
- 2.12 Registered users shall be able to message sellers.

Administrator:

- 3.1 Admins shall have all the functions of registered and unregistered users.
- 3.2 Admins shall be able to access the Admin dashboard when logged in.
- 3.3 Admin dashboards shall contain all messages sent to the site email.
- 3.4 Admin dashboards shall contain items waiting for approval.
- 3.5 Admins shall be able to approve and disapprove items.
- 3.6 Admins shall be able to remove a registered user from the site.

5. List of Non-functional Requirements:

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.
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.
3. Selected application functions must render well on mobile devices.
4. Data shall be stored in Amazon Web Services.
5. File size in no time shall exceed 3 MB.
6. No more than 50 concurrent users shall be accessing the application at any time.
7. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
8. The language used shall be English.
9. Application shall be very easy to use and intuitive.
10. The Systems visual response time shall be within 5 seconds.
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.
12. No email clients shall be allowed.
13. Pay functionality shall not be implemented nor simulated.
14. Site security: basic best practices shall be applied (as covered in the class).
15. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development.
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).

6. Competitive Analysis:

Features	Amazon	Ebay	Craigslist	Letgo	Etsy	UniTrade
Search	++	+	+	+	+	+
Category	++	++	++	+	+	+
Sort	++	++	+	+	+	+
Browse	++	++	+	+	+	+
Message	+	+	+	+	+	+
Search by SFSU Class	-	-	-	-	-	+

+ feature exist; ++ superior; - does not exist

Niche market is the go-to strategy. While global companies like Amazon and Ebay target all industries and customers, our product is similar to Craigslist, Letgo, or Etsy in that we target specific customers, in this case, SFSU students. We want to provide a platform where students can trade with one another conveniently and quickly.

7. High-level System Architecture:

Server/Platform - AWS, 1 vCPU, 1 GiB RAM

OS - Linux 2.7.3

Database - PostgreSQL 9.4.17

Web Server - Apache 2.4.33

Server-Side Language: Python 3.6.4

Additional Technologies:

Web Framework: Django 1.11.10

Front End Framework: Bootstrap 4.1.3

IDE: Pycharm 2018.1.3

Web Analytics: Google Analytics

Supported Browsers: The latest two versions of Mozilla, Safari and Chrome

8. Team:

<u>Name</u>	<u>Position</u>	<u>Front End/Back End Affinity</u>
Xinhuan Qiu	Team Lead	FE/BE
Mario Marcos		BE
Pohung Wang	Git Master	FE
Jianhong Kuang		BE
Zachary Martin	Back End Lead	BE
Toluwanimi Oyewumi	Front End Lead	FE
Rong Tian Huang		FE

9. Checklist:

- Team found a time slot to meet outside of the class **DONE**
- Github master chosen **DONE**
- Team decided and agreed together on using the listed SW tools and deployment server **DONE**
- Team ready and able to use the chosen back and front end frameworks and those who need to learn are working on it **DONE**
- Team lead ensured that all team members read the final M1 and agree/understand it before submission **DONE**



Team 10
(local)

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Milestone 2
October 9, 2018

Date Submitted
October 18, 2018

Date Revised
October 26, 2018

1. Data Definition

Unregistered User: The user has not registered. Unregistered user can only browse on UniTrade.

Register User: The user is registered to UniTrade. Registered user has all the unregistered user's privileges and in addition can post items, upload images, send and receive messages to/from other users in UniTrade.

Administrator: The user can review and manage items on UniTrade. In addition to registered user's privileges, an administrator can approve or delete items.

Login : Registered user can login with registered username and password.

Logout: Logged in registered users can logout from account.

Register: Unregistered users have to register in order to buy or sell. Unregistered users need to fill the register form with valid email, username (6 to 18 characters), password (6 to 18 characters). Users will not be prompted to register until they intend to post their items for sale or intend to contact sellers to buy.

Item: The items that users post for sale. Registered Users need to fill in title, price, description (optional), categories and upload images.

Title: The name of the item (max 100 characters).

Description: The description of the item.

Price: The price of the item that the seller asks for selling.

Image: The images of the item. The sellers are allowed to upload up to 5 images per item. Each image shall be in JPG format and have a maximum size of 3 MB.

Seller: The registered user who is selling the item.

Category: Each item belongs to a category. Users can browse items by category or search for items by keyword within each category.

Date: The date on which the item is approved and posted on website.

Status: The statuses of the items that registered users can see in their User Dashboard, which are Pending or Approved. Pending status for the items which are submitted by users but haven't approved by administrator. Approved status for the items which submitted by users, approved by administrator, and posted on the website.

Contact Seller (button): A button feature in item page which allows the buyer to send a message to the item seller.

Category: Items are categorized in different groups. Book, Electronics, Arts, Household, or Miscellaneous etc..

Book: Category for all paper materials, such as, textbooks, magazines, novels, etc..

Household: Category for household goods or furnitures, such as, bed, dishes, chairs, lamp, desk, etc.

Arts: Category for art materials or art works, such as, drawing board, guitar, paint brush, painting, photography collection, etc.

Electronics: Category for seller to sell electronic items.

Miscellaneous: Category for non-major items, such as, food, advertisement, lost and found message, rental info, wanted items ask from buyers, etc.

User Dashboard: Registered users can view and manage their profile, items and messages on their dashboards.

Profile Panel: A dashboard panel that contains a user's profile and allow the user to review or edit personal information.

Pending Tab: A dashboard tab that contains a list of the user's submitted items that are in the pending status, i.e. the items have not been approved by the administrator.

Approved Tab: A dashboard tab that contains a list of the user's submitted items that are in the approved status, i.e. the items have already been approved by the administrator and are visible to the other users on the website.

Message Tab: A dashboard tab that contains a list of messages the user has sent or received.

Admin Dashboard: Administrators can view and manage (approve or delete) all the items that have been created on the website, view and send messages on the admin dashboard, and delete users from the website system.

Message: Registered users can send messages to each other regarding to a specific item.

Recipient: The registered user who receives the message.

Sender: The registered user who sends the message.

Item: The item that the message is related to.

Content: The message contents.

Timestamp: The time when the message is sent.

Reply (button): A button feature that allows the recipient to reply a message to sender.

2. Functional Requirements

Priority 1:

Unregistered Users:

- 1.2. Unregistered users shall be able to browse by category.
- 1.3. Unregistered users shall be able to use text search.
- 1.4. Unregistered users shall be able to sort by posted date and price.
- 1.6. Unregistered users shall be prompted to register or sign in upon confirming to post or buy an item.
- 1.7. Unregistered users shall be able to register.
 - 1.7.1. Registration shall require at least a username, password, and email.
- 1.8. Unregistered users shall be required to accept terms and conditions upon registering.
 - 1.8.1. Terms and conditions shall be at first marked as unchecked.
 - 1.8.2. Unregistered users shall be required to accept this in order to create an account.
- 1.11. Unregistered users shall be able to see the number of items displayed out of all items or the items returned from their search.

Registered Users:

- 2.1. Registered users shall have all of the functions of unregistered users.
- 2.2. Registered users shall be able to login.
 - 2.2.1. Login shall require an valid username and password.
- 2.3. Registered users shall be able to access the User Dashboard.
 - 2.3.1. Users shall be required to be logged in to access this dashboard.
- 2.4. User Dashboard shall show all of the items an user has created.
 - 2.4.1. Items displayed shall be sorted by the most recent posted date.
- 2.5. User Dashboard shall display the title, status (pending or approved), and link of each item.
- 2.6. User Dashboard shall contain all messages sent or received.
 - 2.6.1. Messages shall be separated by a sent and received section.
 - 2.6.2. Messages sent or received shall be sorted by most recent timestamp.
- 2.7. Registered users shall be able to create an item that is for sale.
- 2.8. Registered users shall be prompted to confirm to post their item.
 - 2.8.1. Items shall not be visible on the site until approval.
 - 2.8.2. Items shall be of pending status after confirming to post.
- 2.9. Registered users shall be able to choose their item category, add title, description, images, pricing for their items.
 - 2.9.1. Item category shall be chosen by a drop-down menu.
 - 2.9.2. Description shall be optional.
 - 2.9.3. At least one image shall be required.
 - 2.9.3. Images shall be of jpg format and have a maximum size of 3 MB.

- 2.9.4. One of the images shall be used as the thumbnail.
- 2.10. Registered users shall be able to delete their own items.
 - 2.11.1. Registered users shall be able to delete their items using the dashboard.
 - 2.11.1. Users shall be prompted to confirm when deleting item.
- 2.11. Registered users shall be able to contact sellers.
- 2.13. Registered users shall be able to host an sale event.

Administrators:

- 3.1. Admins shall have all the functions of registered and unregistered users.
- 3.2. Admins shall be able to access the Admin Dashboard when logged in.
- 3.3. Admin Dashboard shall contain all messages created on site.
 - 3.3.1. Messages received shall be sorted by post date.
- 3.4. Admin Dashboards shall contain items waiting for approval.
- 3.5. Admins shall be able to approve and disapprove items.
 - 3.5.1. Disapproved items shall be removed from the site.
- 3.6. Admins shall be able to remove a registered user from the site.

Priority 2:

Unregistered Users:

- 1.9. Unregistered users shall be able to filter their search.
- 1.10. Unregistered users shall be able to search within category.

Registered Users:

- 2.12. Registered users shall be able to edit their own items.
 - 2.10.1. Registered users shall be able to edit their items using the dashboard.
- 2.14. Registered users shall be able to delete messages.
 - 2.14.1. Users shall delete messages using the dashboard.
- 2.15. Registered users shall be able to retrieve a forgotten password.
 - 2.15.1. Retrieving shall go through a identification process.

Priority 3:

Unregistered Users:

- 1.5. Unregistered users shall be able to see similar items related to their search.
 - 1.5.1. Similar items shall be displayed from the same category.

Registered Users:

- 1.12. Registered users shall be able to chat with buyers/sellers
- 1.13. Registered users shall be able to have real time live chat with admin.
 - 1.13.1. Live chat shall become available when an admin is online.
- 1.14. Registered users shall be able to see their recently viewed items.
- 1.15. User Dashboard shall contain most recent viewed items.

- 1.15. Registered users shall be make their item as sold.
- 1.16. Registered users shall be able to see recommendation items.
 - 1.16.1. Recommended items shall be based on the user's recently searched or viewed items.

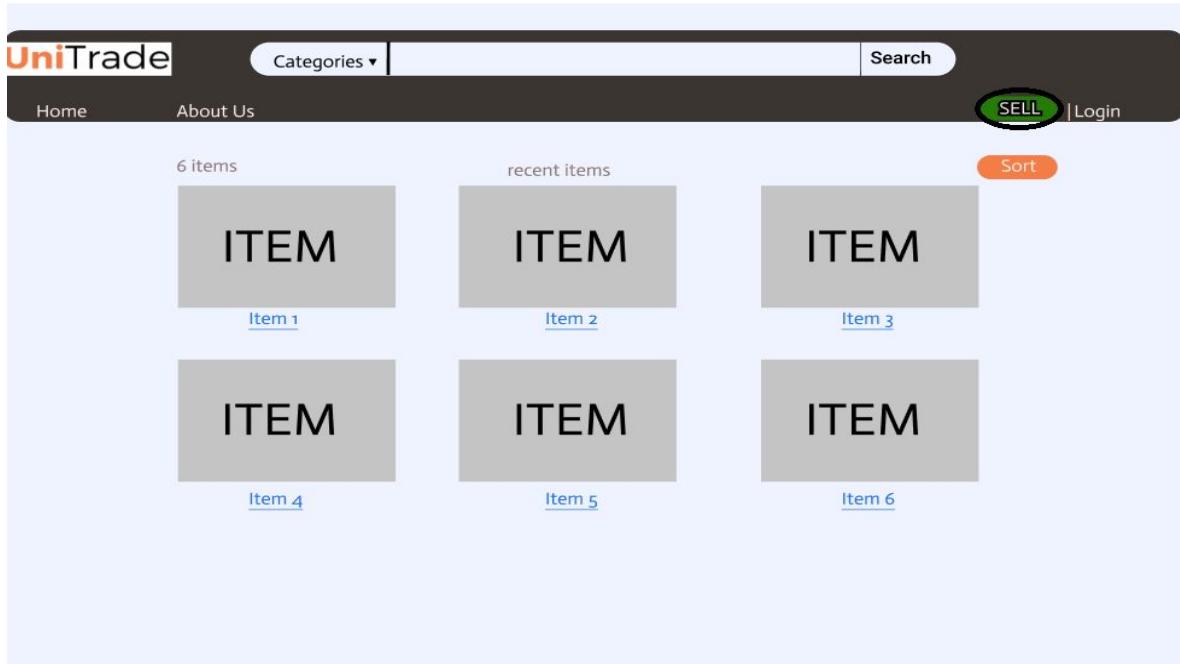
Administrators:

- 3.7. Admins shall be able to receive real time chat from users.
- 3.8. Admins shall be able to reply to the chat sent by the user.

3. UI Mockups and Storyboards

Use Case 1: Unregistered user interested in selling an item.

1. The unregistered user first visits the homepage and clicks on the green button to sell.



2. Then the unregistered user is redirected to a new page containing a form required to be filled with description of the item.

The screenshot shows a 'POST ITEM TO SELL' form on the UniTrade website. The form includes fields for 'Name of item*', 'Price*', 'Item description', 'Category', and 'Image'. The 'Category' field is a dropdown menu with options: Books, Furniture, Electronics, Shoes, and Misc. There is also a note at the bottom stating: 'Note: The item would have to be approved by administrator before officially posted. Check dashboard for updates.' At the bottom right, there are 'Cancel' and 'Post' buttons.

POST ITEM TO SELL

Description

Name of item*:

Price*: \$

Item description:

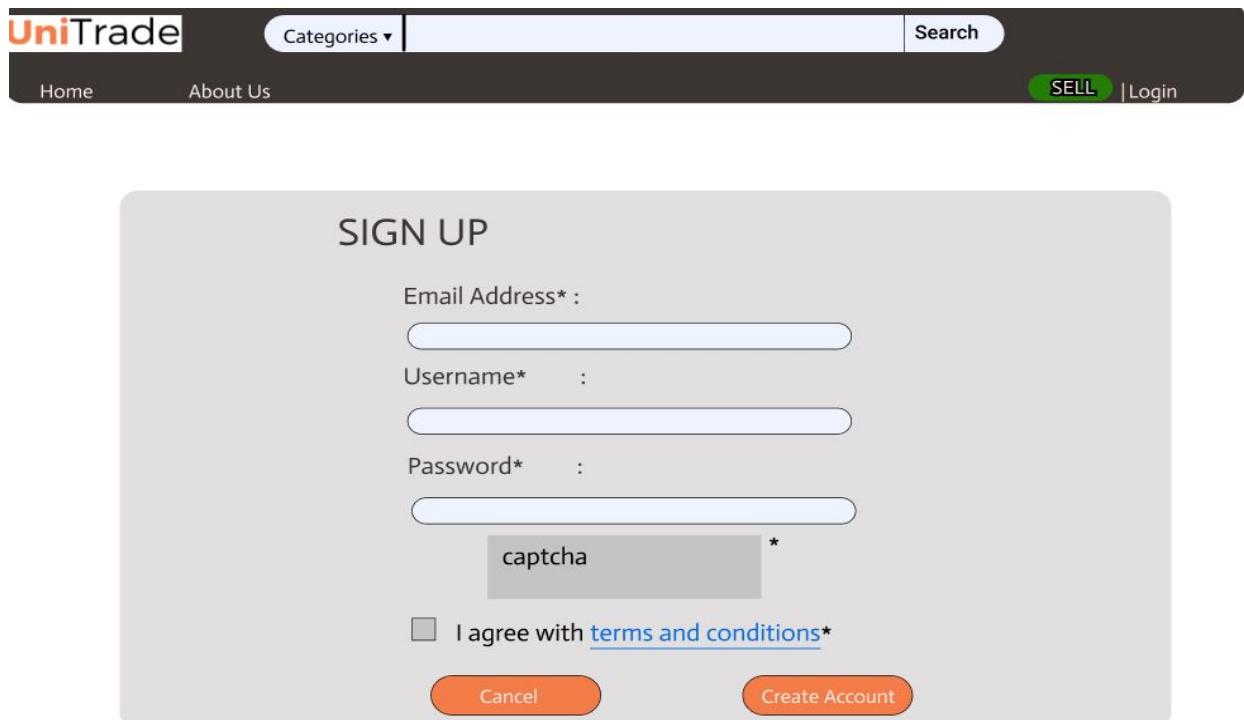
Category:
Books
Furniture
Electronics
Shoes
Misc.

Image:

Note: Can post up to 5 images *Images must be less than 3MB

Note: The item would have to be approved by administrator before officially posted.
Check dashboard for updates.

3. Once the unregistered user clicks “Post”, they are redirected to a sign-up page where they have to fill out the required information to create an account.



The screenshot shows the UniTrade sign-up page. At the top, there is a navigation bar with the UniTrade logo, a 'Categories' dropdown, a search bar, and links for 'Home', 'About Us', 'SELL', and 'Login'. The main form is titled 'SIGN UP' and contains fields for 'Email Address*', 'Username*', 'Password*', and a 'captcha' field. There is also a checkbox for agreeing to terms and conditions. At the bottom are 'Cancel' and 'Create Account' buttons.

SIGN UP

Email Address* :

Username* :

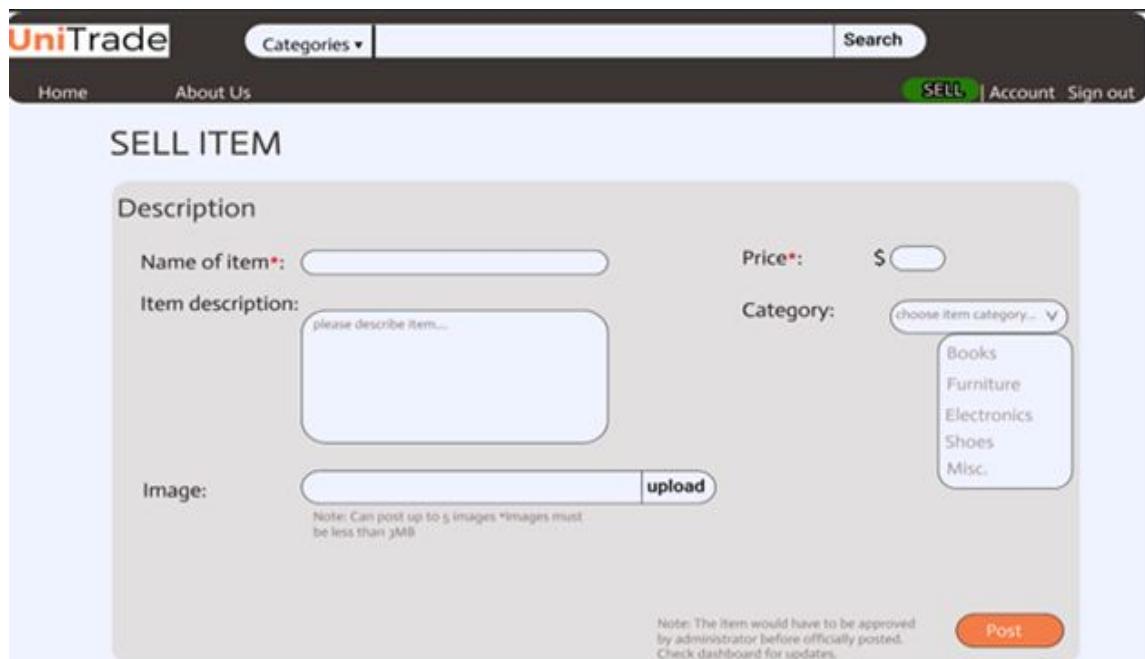
Password* :

captcha *

I agree with [terms and conditions*](#)

Cancel Create Account

4. Once the user clicks “Create Account”, they are redirected back to the sell item page with the items still filled in, the user can then review the information and post.



The screenshot shows the UniTrade sell item page. At the top, there is a navigation bar with the UniTrade logo, a 'Categories' dropdown, a search bar, and links for 'Home', 'About Us', 'SELL', 'Account', and 'Sign out'. The main form is titled 'SELL ITEM' and has sections for 'Description', 'Image', and 'Post'. In the 'Description' section, there are fields for 'Name of item*', 'Item description' (with a note to describe the item), 'Price*', and 'Category' (with a dropdown menu showing 'choose item category...' and options for Books, Furniture, Electronics, Shoes, and Misc.). In the 'Image' section, there is a file input field with an 'upload' button and a note about posting up to 5 images. At the bottom, there is a note about item approval and a 'Post' button.

SELL ITEM

Description

Name of item*:

Item description:
please describe item...

Price*:

Category: choose item category... ▾

Books
Furniture
Electronics
Shoes
Misc.

Image:

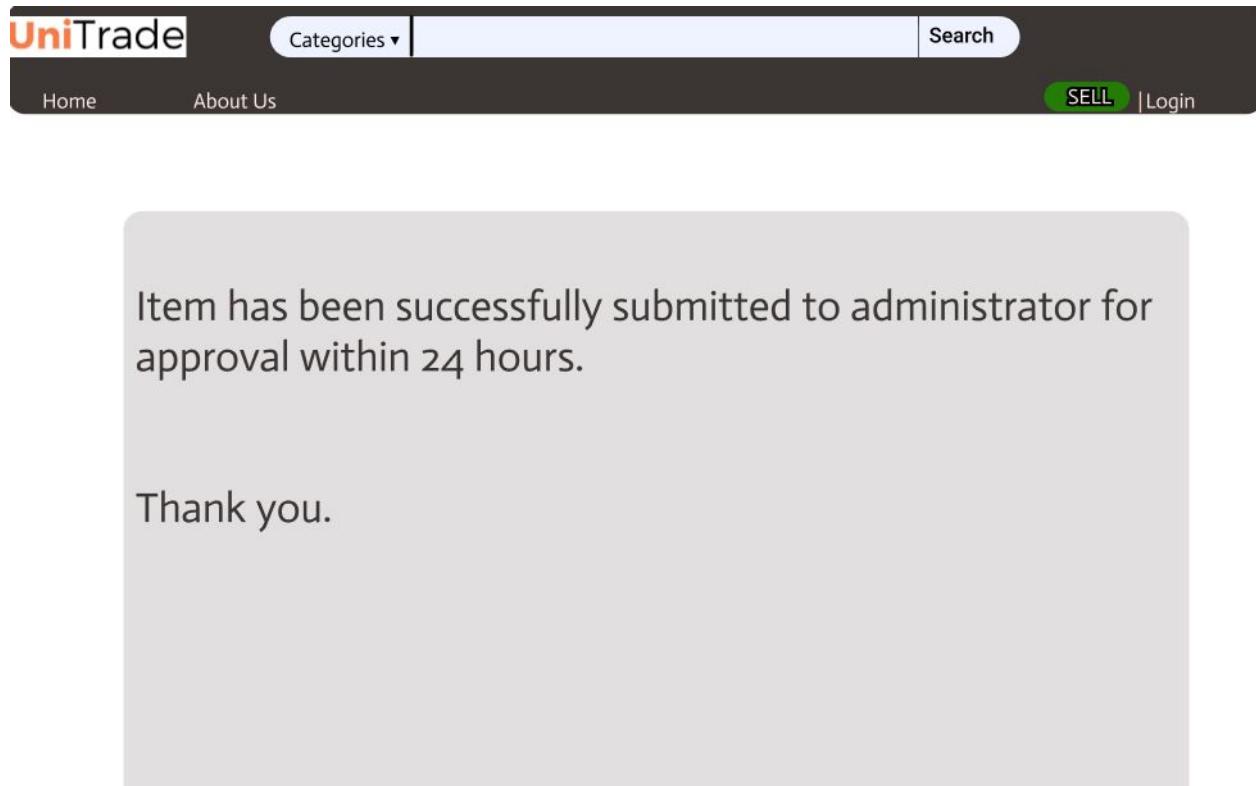
Note: Can post up to 5 images *Images must be less than 3MB

upload

Note: The item would have to be approved by administrator before officially posted.
Check dashboard for updates.

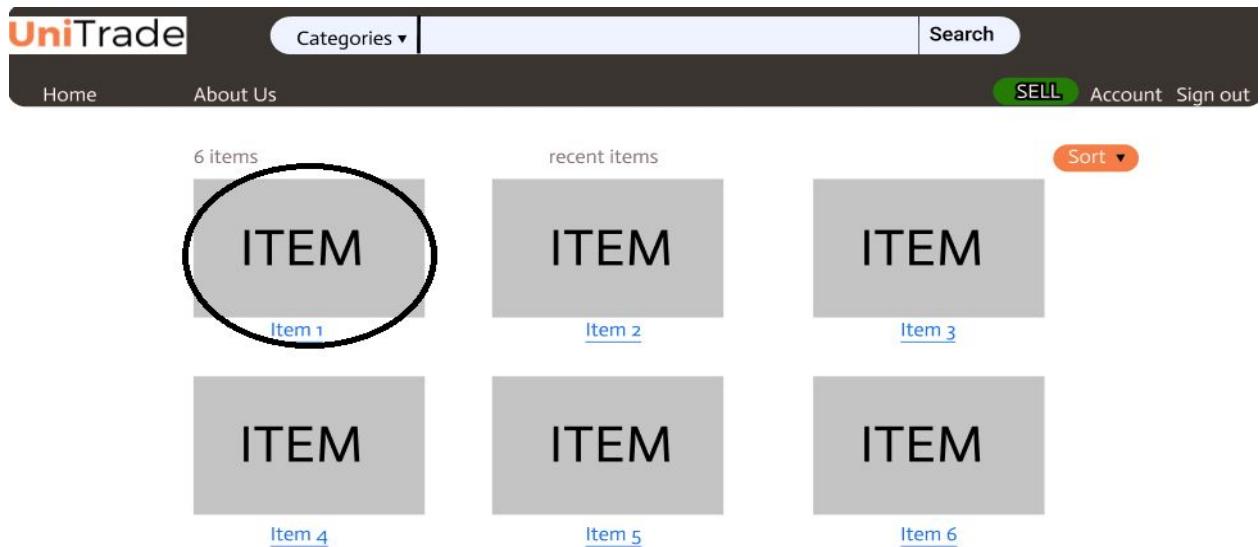
Post

5. After the user clicks “Post”, a message will display on the screen informing that the item has been submitted for approval. The user can check the status of his item on his user dashboard.

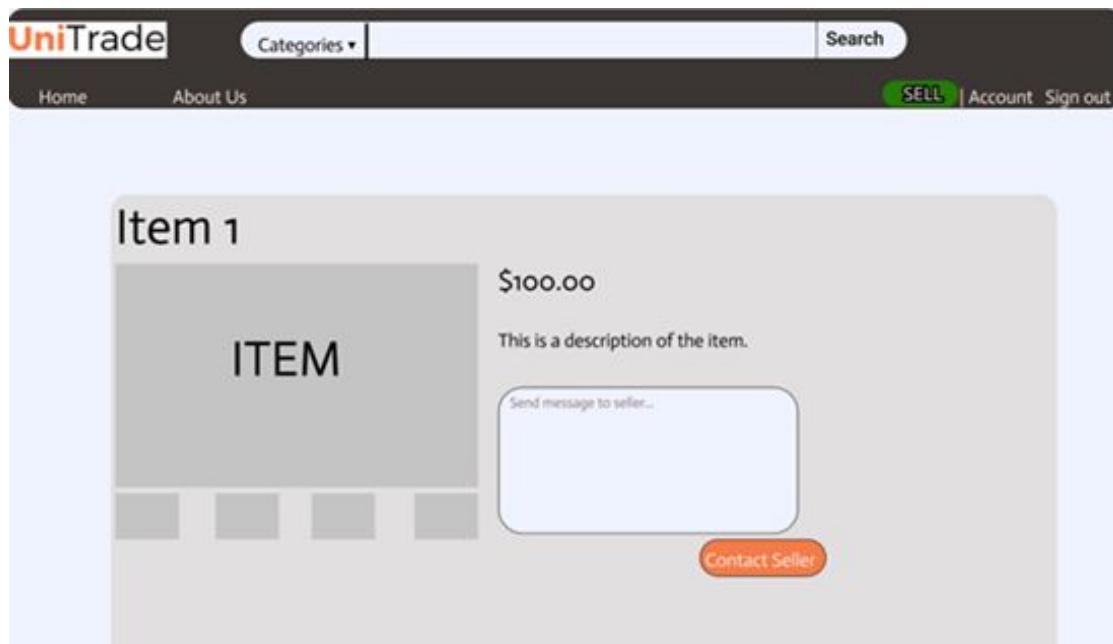


Use Case 2: Registered user interested in buying an item.

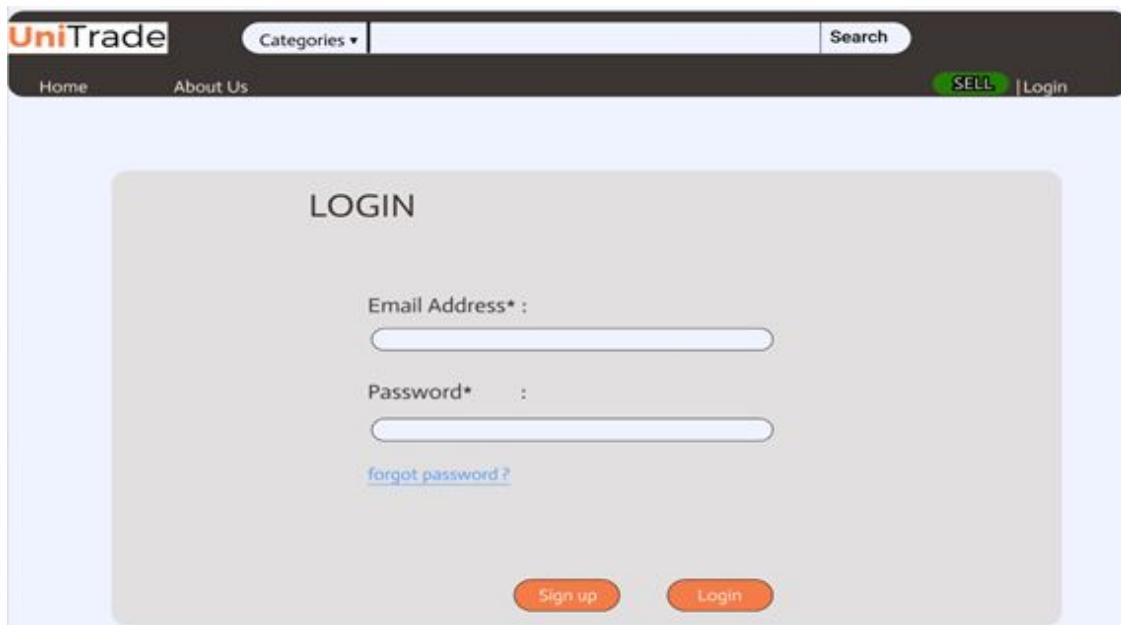
1. The user can choose the item they are interested in and click on the item to view its detail information.



2. The item's detail page will open in a new tab. It contains the item's title, description, images and a text box where the user can write and send a message to contact the seller.

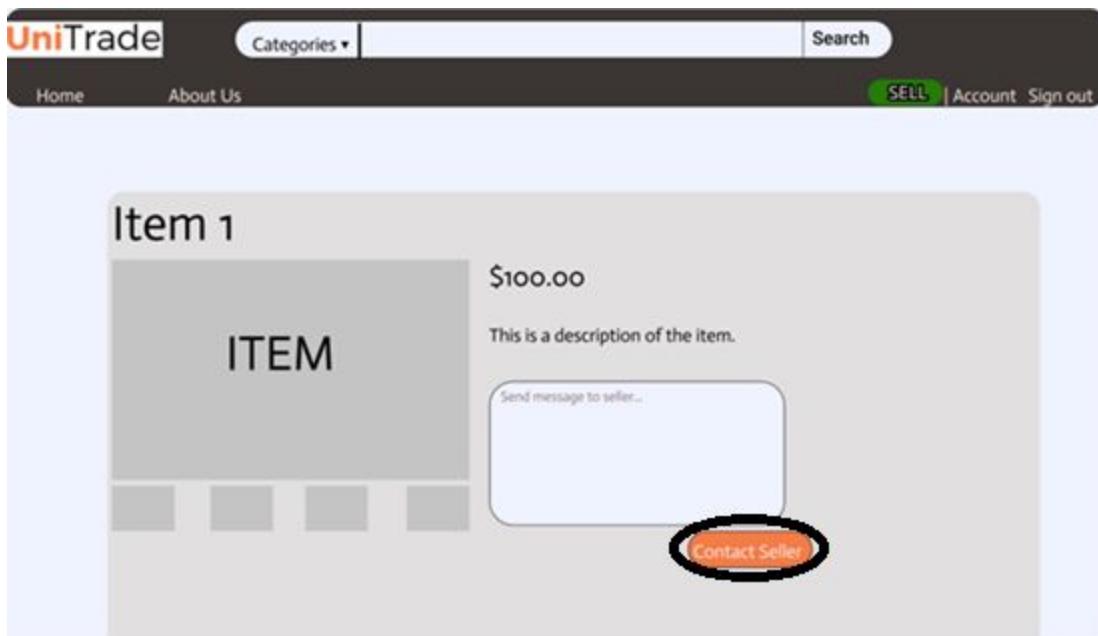


3. If the user is interested in the item they selected, he can write a message to the seller. If the user is not currently logged in, they would be redirected to the login page.



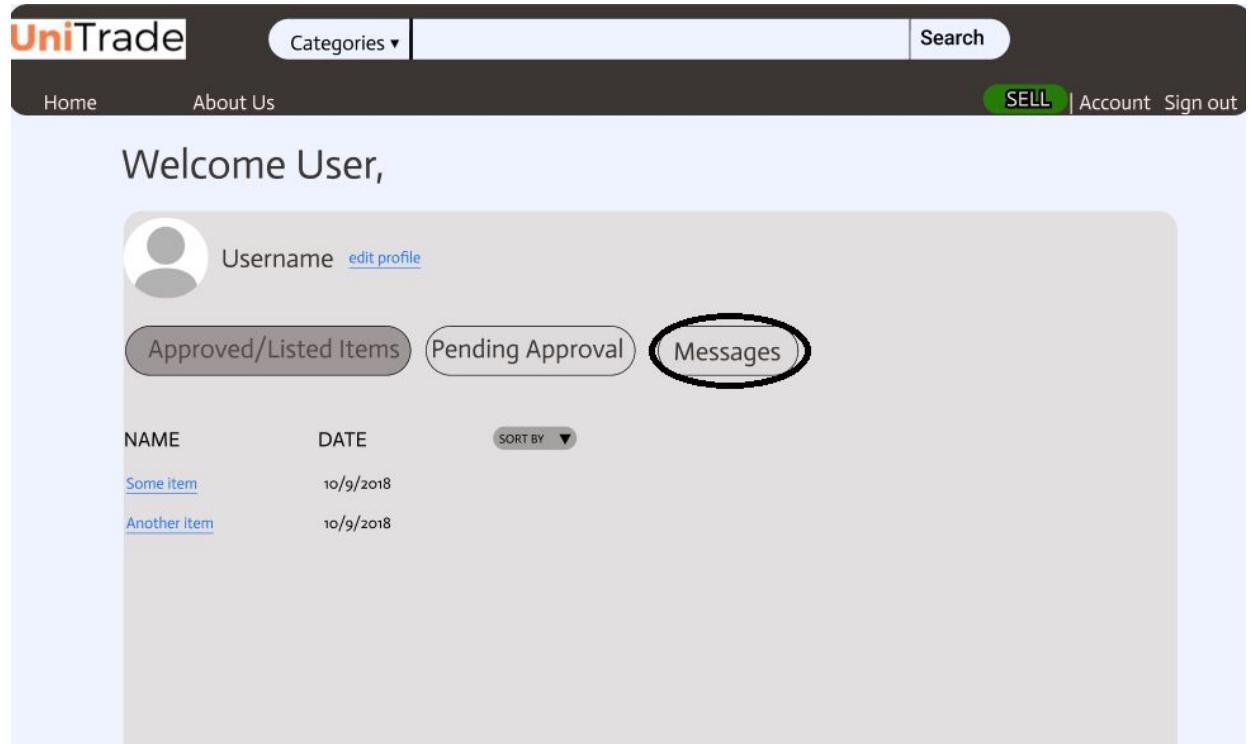
The screenshot shows the UniTrade login page. At the top, there is a navigation bar with the UniTrade logo, a 'Categories' dropdown, a search bar, and a 'SELL' button. Below the navigation bar, there are links for 'Home' and 'About Us'. The main area is titled 'LOGIN' and contains fields for 'Email Address*' and 'Password*'. There is also a link for 'forgot password?'. At the bottom of the form are two orange buttons: 'Sign up' and 'Login'.

4. Once the user is logged in, they are redirected back to the item page where they can review their message and click "Contact Seller" to send the message directly to the seller.



The screenshot shows the UniTrade item page for 'Item 1'. At the top, there is a navigation bar with the UniTrade logo, a 'Categories' dropdown, a search bar, and a 'SELL' button. Below the navigation bar, there are links for 'Home' and 'About Us'. The main content area displays the item details: 'Item 1', 'ITEM' (with a placeholder image), '\$100.00', and a description: 'This is a description of the item.'. Below the description is a text input field labeled 'Send message to seller...' and a red 'Contact Seller' button, which is highlighted with a black oval.

5. Once the message is sent, the user will be redirected to his dashboard. The message he just sent will show up on the top of the Messages Sent list (ordered by timestamp of the messages in descending order).

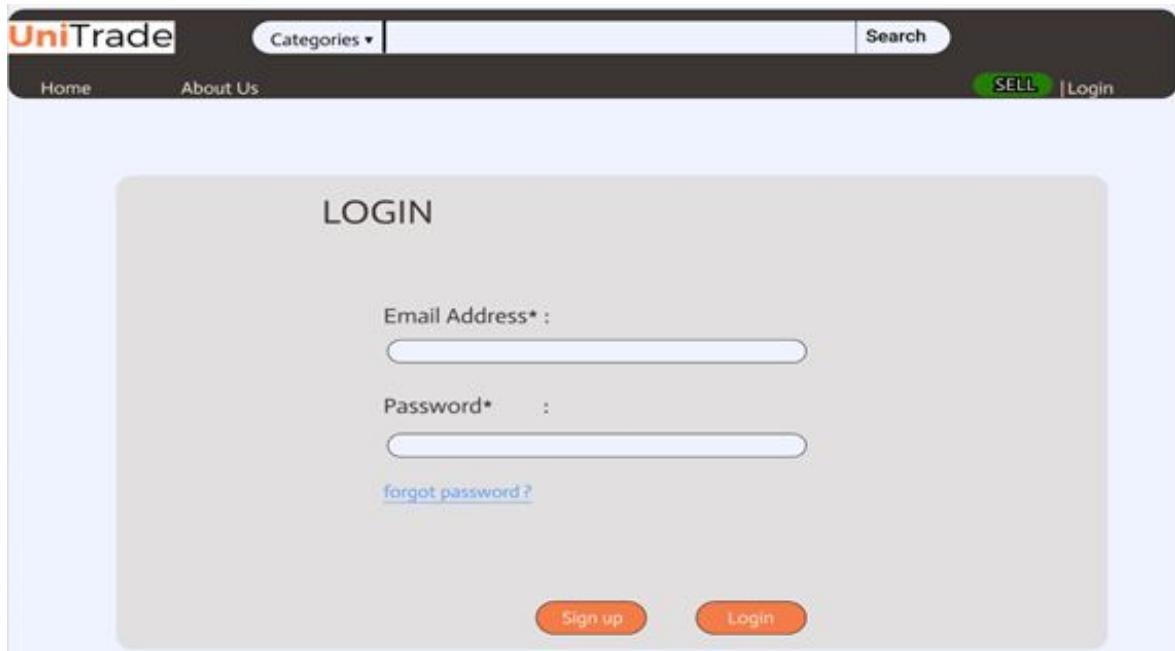


The screenshot shows the UniTrade dashboard. At the top, there is a navigation bar with the UniTrade logo, a 'Categories' dropdown, a search bar, and links for 'Home', 'About Us', 'SELL', 'Account', and 'Sign out'. Below the navigation bar, a welcome message 'Welcome User,' is displayed. On the left, there is a user profile section with a placeholder profile picture and the text 'Username [edit profile](#)'. Below this are three buttons: 'Approved/Listed Items', 'Pending Approval', and 'Messages', with 'Messages' being circled in red. A table follows, showing two items listed under 'NAME' and 'DATE'. The table includes a 'SORT BY' dropdown menu.

NAME	DATE
Some item	10/9/2018
Another item	10/9/2018

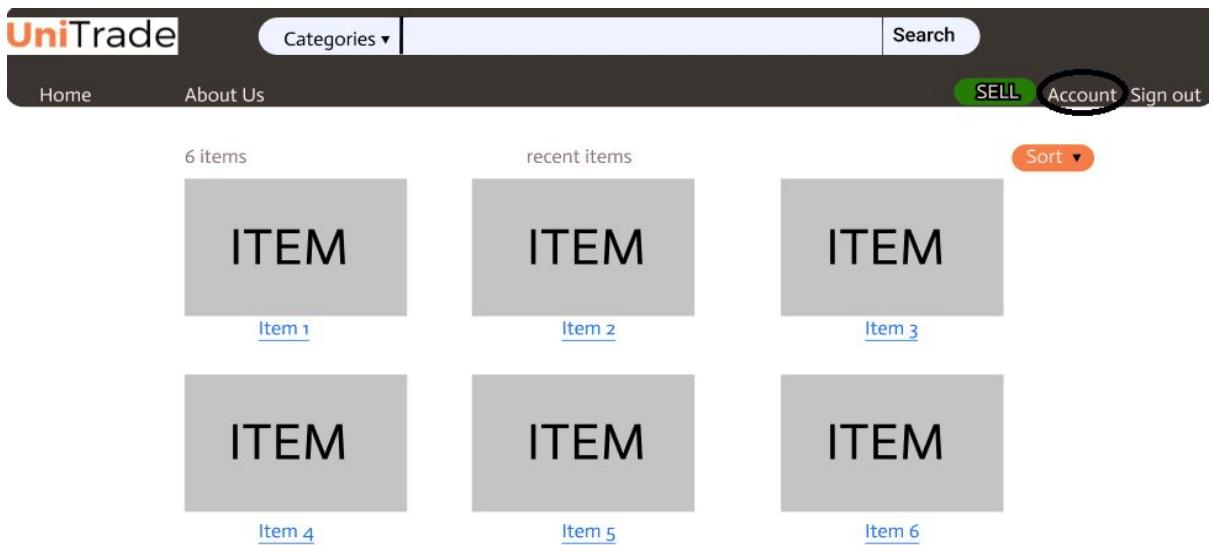
Use Case 3: Registered user viewing their dashboard.

1. The user first clicks “Login”, which brings him to the login page.



The image shows the UniTrade login page. At the top, there is a navigation bar with the UniTrade logo, a 'Categories' dropdown, a search bar, and links for 'Home', 'About Us', 'SELL', and 'Login'. Below the navigation bar is a large central box titled 'LOGIN'. Inside this box, there are two input fields: one for 'Email Address*' and another for 'Password*'. Below the password field is a link 'forgot password?'. At the bottom of the login form are two orange buttons: 'Sign up' and 'Login'. The entire login form is set against a light gray background.

2. After logging in, he is redirected to the homepage. Then, he can visit his dashboard by clicking on the account link at the bottom right of the navigation bar.



The image shows the UniTrade homepage after a user has logged in. The navigation bar is identical to the login page, with the 'SELL' button highlighted in green. A circled 'Account' link is shown in the navigation bar. Below the navigation bar, there is a section titled 'recent items' with a 'Sort ▾' button. Six items are displayed in a grid, each consisting of a gray box with the word 'ITEM' and a blue link below it labeled 'Item 1' through 'Item 6'. The background of the page is white.

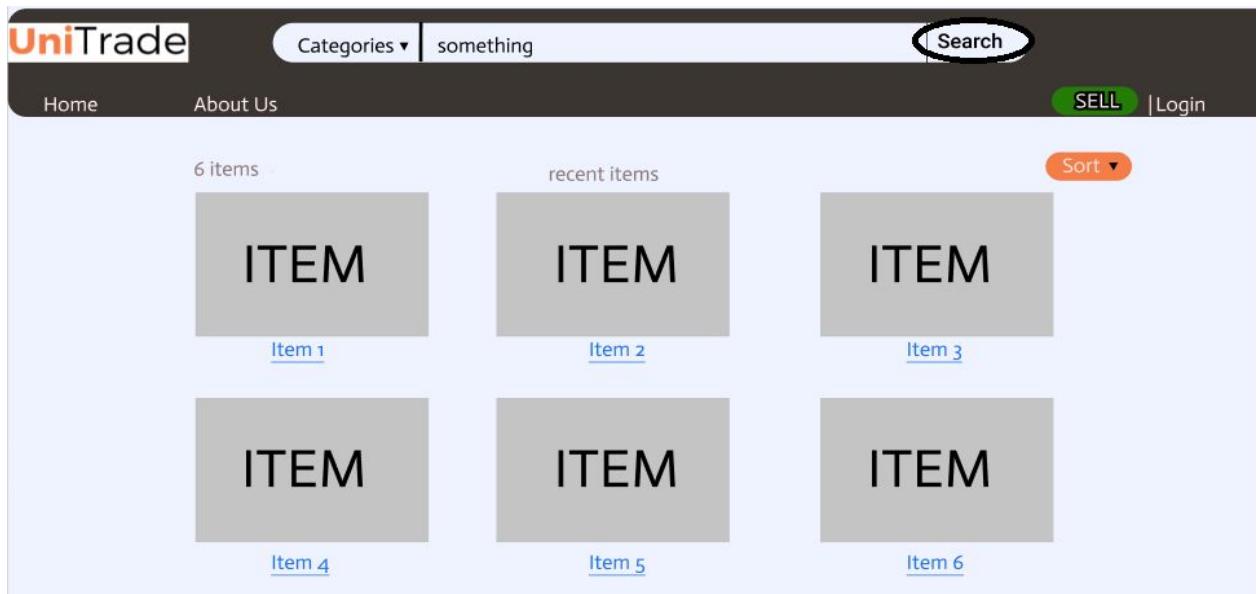
3. He would then be redirected to his dashboard which holds information regarding items listed, items pending approval, and messages sent and received.

The screenshot shows the UniTrade user dashboard. At the top, there is a navigation bar with the UniTrade logo, a 'Categories' dropdown, a search bar, and links for 'Home', 'About Us', 'SELL', 'Account', and 'Sign out'. Below the navigation bar, a welcome message 'Welcome User,' is displayed. To the left is a user profile icon and the text 'Username [edit profile](#)'. Below this are three buttons: 'Approved/Listed Items', 'Pending Approval', and 'Messages'. A table follows, showing two items listed under 'NAME' and 'DATE'. The table includes a 'SORT BY' dropdown menu. The data is as follows:

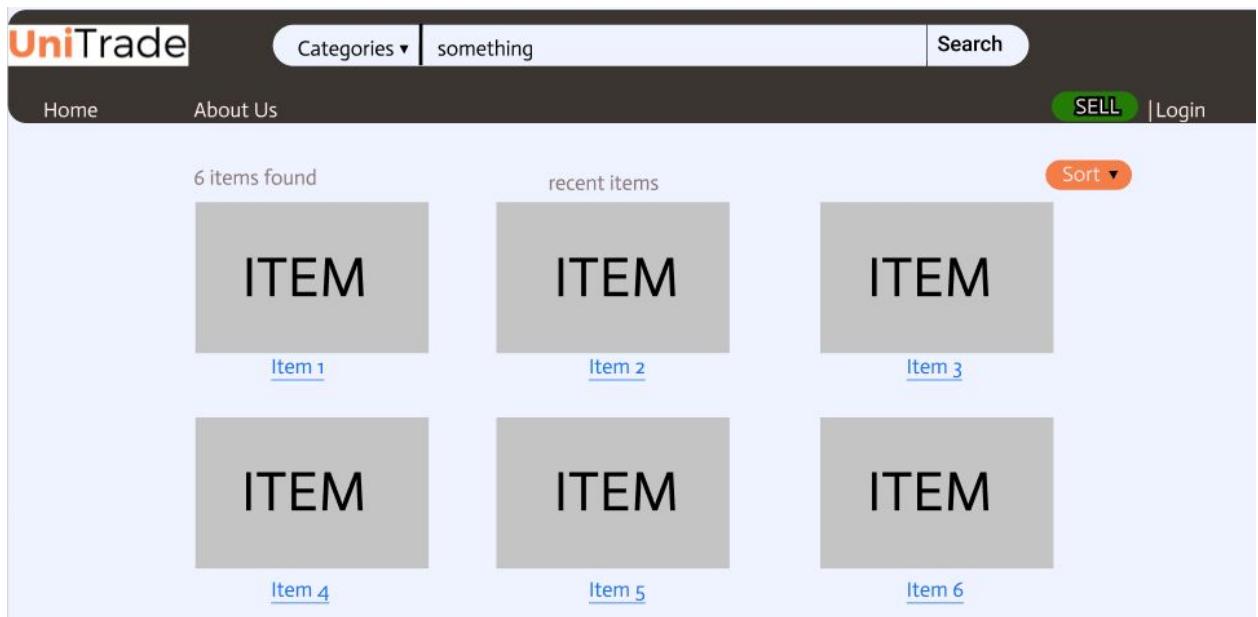
NAME	DATE
Some item	10/9/2018
Another item	10/9/2018

Use Case 4: User looking for a specific item.

1. A registered or unregistered user can perform a search for a specific item using either by category or keyword. They can type the item they are looking for and click on “Search” which redirects the user to a new tab that lists the search results.



2. The results page will show how many items are found. Out of the items listed, the user can then decide which item they are interested in and click on the item to see more information.



3. However, if the searched item isn't listed on the website. They are redirected to a page informing them of the unavailability of the item while listing items they might also be interested in (all items from the chosen category, or all items if no category was chosen).

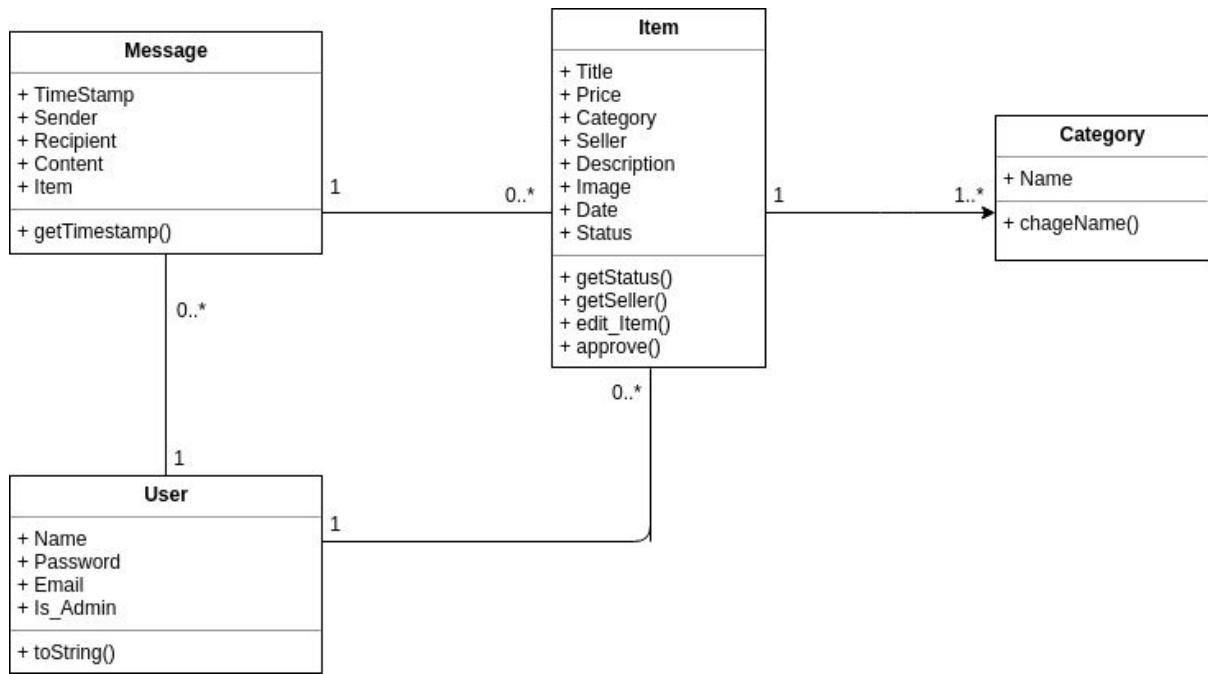
The screenshot shows a dark-themed web interface for 'UniTrade'. At the top, there's a navigation bar with the logo 'UniTrade' on the left, followed by a 'Categories ▾' button, a search input field containing 'something', and a 'Search' button. Below the navigation bar are links for 'Home' and 'About Us', and on the right, buttons for 'SELL' and 'Login'. A 'Sort' link is visible near the center-right. The main content area displays a message: 'Unfortunately, the items searched for isn't available'. Below this message is a sub-section titled 'You may also like items in category' with six placeholder boxes labeled 'ITEM'. Each box contains a blue underlined link: 'Item 1', 'Item 2', 'Item 3' in the top row, and 'Item 4', 'Item 5', 'Item 6' in the bottom row.

4. High Level Architecture, Database Organization

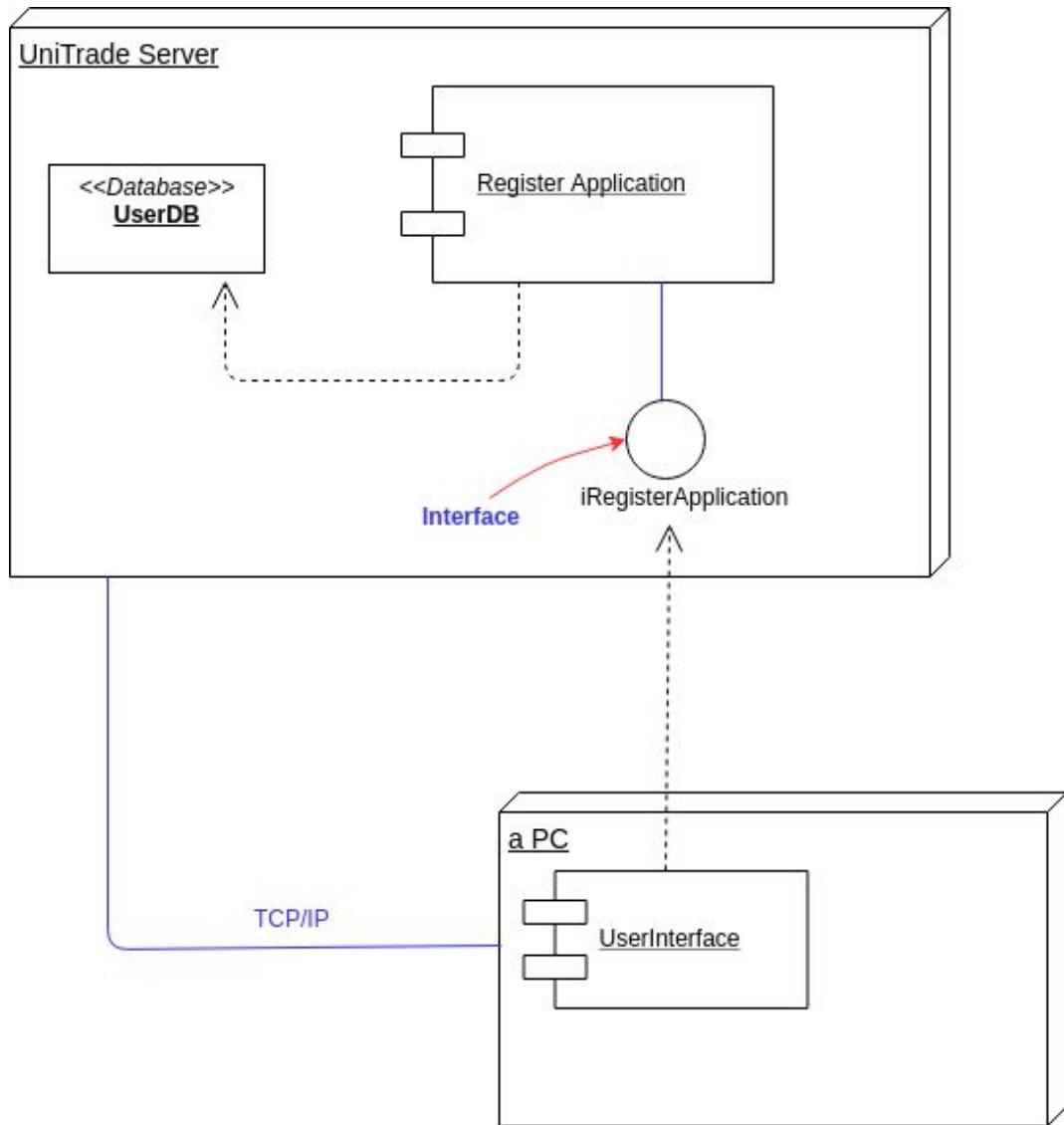
- **DB Organization**
 - User
 - username, password (hashed), email
 - Item
 - title, price, category, seller, description, image, date, status
 - Category
 - name
 - Message
 - timestamp, sender, recipient, content, item
- **Media Storage**
 - Images and files will be kept in file systems inside the media folder.
- **Search/Filter architecture and Implementation**
 - We will use Django's QuerySet API to implement search. We first check if the search keyword is a space string (e.g. space, tab). If it is, we will return all the items. Otherwise, we split the search text by space into different keywords. Then we filter all the items and return the ones that contain all the keywords either in their titles or in their descriptions using `icontains`, which is equivalent to the SQL command `SELECT ... WHERE ... ILIKE '%[keyword]%'`. The returned items will be ordered by their names alphabetically.
- **Your Own APIs**
 - None as of now.
 - There is no change in our SW tools and frameworks thus far.

5. High Level UML Diagrams

a) Class Diagrams



b) UML Component and Deployment Diagrams



6. Key Risk

Skill risks:

Not everyone is familiar with Django and Python. Each member is expected to watch the video tutorials posted in slack, anyone who needs additional help is expected to speak up.

The vertical prototype is also provided to each member to show them an example of how the code should work.

Schedule risks:

There's not a single day where our schedules align with each other. To fix this we've decided to meet up at least 30 minutes to 1 hour after class. We also have weekly meetings in zoom on Fridays. If there's a need for it, back-end/front-end members will schedule their own separate meetings.

Legal/Content risks:

UniTrade is not liable for injury, death, damage, cost, expense, or inconvenience arising from any deals made.

Milestone 3 Review Summary

Fall 2018

Summary and plans (to be filled out by the team after M3 review meeting and submitted with Milestone 5 documents)

Team: 10

Date: 11/13/18

Number of students present: 7

1. *UI and functionality feedback (P1 functions only)*

- Home page

Feedback: The Home button in the navigation bar should be removed since the UniTrade logo performs the same function. Also, the about us button should be moved to the right side of the navigation bar preferably in front of the sell button. A description of the website should be added underneath the “Welcome to UniTrade” text to give the users/visitors an understanding of the websites purpose to avoid confusion. Which should replace the “A CSC648-848 Team 10 Project” text.

The item card should have a buy button to clear up any confusion a user might have when interested in purchasing an item.

The number of items being displayed on a page should be displayed as well as the sort of the item being displayed (i.e most recent items).

- Search (including search field validation)

Feedback: All good.

- Search results

Feedback: When performing a search if a category it chosen, it should be consistent when the search results are displayed. So, if an item isn’t available on the website the items displayed should be from the chosen category.

- Filtering

Feedback: Not implemented

- Search Details and maps

Feedback: When an item is selected it should be opened in a new tab. The spacing on the details page should be reduced, the “price” text and the amount should be on the same line and this should be reciprocated for the items description.

- Messaging/contact seller
Feedback: None
- Listing Upload
Feedback: Since the website would be accommodating at most 5 images, it was recommended that when an image is uploaded using the choose file button, the button should change to choose another file with the previously uploaded file above it. Also, the agree to terms and conditions check should be removed and added to the sign up page instead.
- Seller dashboard
Feedback: In the messaging tab, the organization of the table should be rearranged having the item the message is regarding show first followed by the message, then sender and the time/date received.
- UI responsiveness (resize the browser)
Feedback: The website was responsive when the browser was resized.
- Performance (e.g. display of results list)
Feedback: The search results list was functional.

2. ***Feedback on coding style, github, database etc.***

Commit notes should be more descriptive, codes should have header comments so that the code reviewer knows the function of the code. There's no need for excessive commenting in code if the implementation is straight forward

3. ***Feedback on Project status***

1. *Teamwork:* The team is working out, no issues to be reported.
2. *Risks:* all actual (not hypothetical) risks (schedule, technical, skills etc.) should be identified and either resolved or plans made how to resolve them asap.
3. *Coding practices:* The coding style to be used is the reStructuredText Docstring format
4. *Usage of proper SE code management practices:* be ready to comment on how you manage code submissions, reviews, build and test etc. This will be verified by looking at actual code and server logs

5. *How did you address site security and safe coding practices:* PW management, use of secure protocols, checking for valid inputs etc.
6. *Digital content* (e.g. images, video) please provide information on status and availability, chosen formats, resolution etc.
7. Agree on final P1 list and from then on focus only on those
8. Other

4. *List of committed P1 functions (agreed upon at the review meeting)*

Login/Registration
Search
Item details
Post to sell item
Seller database/dashboard
Items sort.

5. *Action items (plans based on feedback above)*

- Removal of the home button and moving the about us button in the navigation bar to the right of the search bar.
- Adding website description to the front page
- Reducing the spacing in the item detail page
- Restructuring the message table in the dashboard to have the items the received/sent message is regarding followed by the message, the sender and the date and time of the sent message.
- Adding a buy button to an item card so that the user isn't confused on how to buy an item.
- Implementing sort options for items.

UniTrade

Team 10

Xinhuan Qiu (xqiu1@mail.sfsu.edu)
Mario Marcos
Pohung Wang
Jianhong Kuang
Zachary Martin
Toluwanimi Oyewumi
Rong Tian Huang

Milestone 4
December 2, 2018

Created on

November 27, 2018

Revised on

December 4, 2018

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	<ol style="list-style-type: none">Verify the Category dropdown shows "All"Enter "book" in input text fieldClick 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">
                &nbsp;
                <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):

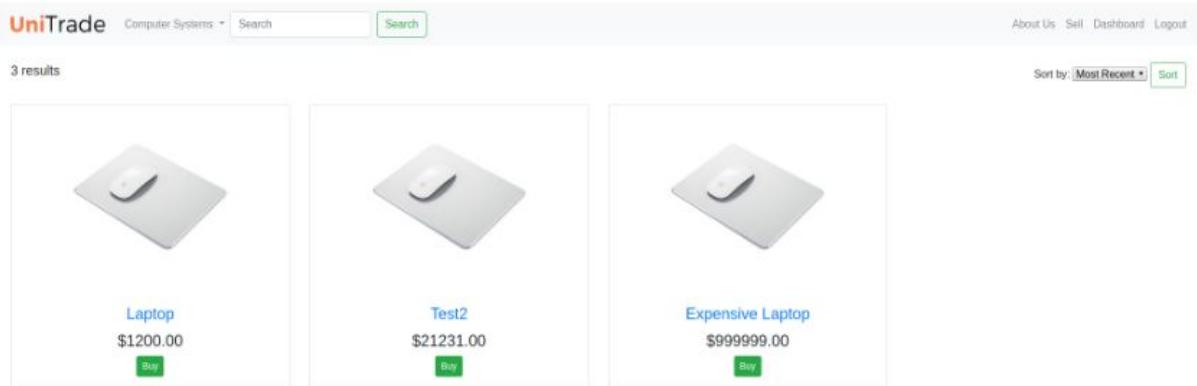
- Can you remove the sort button so that the results will be sorted just by choosing an option, like how category works?

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

fixed issue

see reference:

FSU-Full Software Engineering Project CSC 648-B48 Team 10, Fall 2018. For Demonstration Only



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 `views.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**

Product Screen Shots

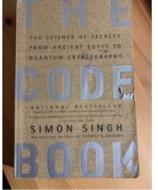
Home page

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

UniTrade Category Search About Us Sell Dashboard Logout

Welcome to UniTrade
A website for SF State students to buy and sell items

Currently Viewing Recent Items

 Succulent Cement Pot \$10.99 <input type="button" value="Buy"/>	 Indoor Rock Climbing \$35.00 <input type="button" value="Buy"/>	 The Code Book - Simon ... \$59.99 <input type="button" value="Buy"/>	 Mini Cactus \$16.99 <input type="button" value="Buy"/>
 View Item	 View Item	 View Item	 View Item

Result page

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

UniTrade Furnitures About Us Sell Dashboard Logout

9 results Sort by

 Bill Chair \$27.99 <input type="button" value="Buy"/>	 Wishbone Chair \$27.99 <input type="button" value="Buy"/>	 Eames Chair \$17.99 <input type="button" value="Buy"/>	 Jean Prouve Standard Ch... \$14.00 <input type="button" value="Buy"/>
 View Item	 View Item	 View Item	 View Item

Signup page

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

The screenshot shows the UniTrade Signup page. At the top, there is a navigation bar with links for About Us, Sell, Login, and Signup. Below the navigation bar, the UniTrade logo is displayed. A search bar with a dropdown menu labeled "Category" and a green "Search" button is present. The main content area is titled "Sign Up for UniTrade". It contains several input fields: "Email:" with a placeholder "Required. Inform a valid email address.", "Username:" with a placeholder "Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.", "Password:" with a placeholder "Make sure password contains at least 8 characters and is not entirely numeric.", and "Password confirmation:" with a placeholder "Enter the same password as before, for verification.". Below these fields are terms and conditions: "I agree to the [privacy policy](#) of Unitrade" with a checkbox. A green "Sign up" button is located at the bottom left of the form. At the bottom right, there is a link to the "Privacy Policy of UniTrade".

Login page

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

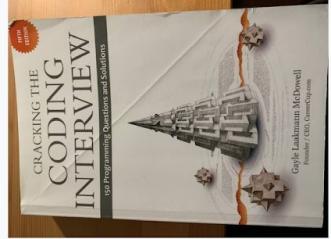
The screenshot shows the UniTrade Login page. At the top, there is a navigation bar with links for About Us, Sell, Login, and Signup. Below the navigation bar, the UniTrade logo is displayed. A search bar with a dropdown menu labeled "Category" and a green "Search" button is present. The main content area is titled "Log In to Unitrade". It contains two input fields: "Username:" and "Password:", both with placeholder text. Below the password field is a green "Log in" button. At the bottom left, there is a link "New to Unitrade? Sign up here." and a link "Forgot password?". At the bottom right, there is a link to the "Privacy Policy of UniTrade".

Item detail page - for users that are not the seller of this item

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

UniTrade Category Search **Search** About Us Sell Dashboard Logout

Cracking the Coding Interview - Fifth Edition
Post created on Dec. 14, 2018, 11:09 a.m.

Image: 

Price: \$79.99

Description: Include 150 Programming Questions and Solutions.

Seller: Tony

Contact Seller:

Message sent successfully

Hi Tony, I'd like to buy this book.

Send

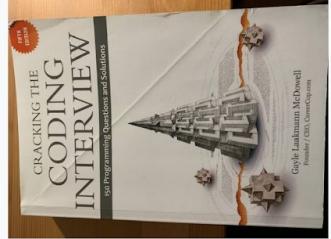
[Privacy Policy of UniTrade](#)

Item detail page - for the seller of this item

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

UniTrade Category Search **Search** About Us Sell Dashboard Logout

Cracking the Coding Interview - Fifth Edition
Post created on Dec. 14, 2018, 11:09 a.m.

Image: 

Price: \$79.99

Description: Include 150 Programming Questions and Solutions.

Seller: Tony

Messages [Go to Messages Dashboard>>](#)

Sender / Receiver	Message	Date
To: Carrie	Hi Tony, I'd like to buy this book.	2018-12-16 16:14
From: Carrie	Hi Tony, I'd like to buy thi...	2018-12-16 16:09

[Privacy Policy of UniTrade](#)

User dashboard - approved items

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

The screenshot shows the UniTrade user dashboard for a user named Carrie. At the top, there is a navigation bar with links for 'About Us', 'Sell', 'Dashboard', and 'Logout'. Below the navigation bar, a search bar is present with a dropdown menu labeled 'Category' and a search button. The main content area starts with a greeting 'Hello Carrie'. Below the greeting, there are three tabs: 'Approved Items', 'Pending Items', and 'Messages'. The 'Approved Items' tab is selected, displaying a table of approved items. The table has two columns: 'Item' and 'Date'. Each item row includes a 'Delete' link. The items listed are: Cosmic Calendar (Dec. 14, 2018, 5:15 p.m.), Periodic Table Poster (Dec. 14, 2018, 11:14 a.m.), Student Hackathon (Dec. 14, 2018, 11:09 a.m.), Introduction to Algorithm (Dec. 13, 2018, 8:56 p.m.), Lab Goggles (Dec. 13, 2018, 8:56 p.m.), Introduction to Probability and Statistics for Engineers and Scientists (Dec. 13, 2018, 8:55 p.m.), CS Department Christmas Party (Dec. 13, 2018, 8:16 p.m.), Chinese Cultural Night (Dec. 13, 2018, 8:10 p.m.), and Office Chair (Dec. 13, 2018, 12:56 p.m.). At the bottom of the page, there is a link to the 'Privacy Policy'.

Item	Date	Delete
Cosmic Calendar	Dec. 14, 2018, 5:15 p.m.	Delete
Periodic Table Poster	Dec. 14, 2018, 11:14 a.m.	Delete
Student Hackathon	Dec. 14, 2018, 11:09 a.m.	Delete
Introduction to Algorithm	Dec. 13, 2018, 8:56 p.m.	Delete
Lab Goggles	Dec. 13, 2018, 8:56 p.m.	Delete
Introduction to Probability and Statistics for Engineers and Scientists	Dec. 13, 2018, 8:55 p.m.	Delete
CS Department Christmas Party	Dec. 13, 2018, 8:16 p.m.	Delete
Chinese Cultural Night	Dec. 13, 2018, 8:10 p.m.	Delete
Office Chair	Dec. 13, 2018, 12:56 p.m.	Delete

[Privacy Policy](#) of UniTrade

User dashboard - pending items

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

The screenshot shows the UniTrade user dashboard for a user named Carrie. At the top, there is a navigation bar with links for 'About Us', 'Sell', 'Dashboard', and 'Logout'. Below the navigation bar, a search bar is present with a dropdown menu labeled 'Category' and a search button. The main content area starts with a greeting 'Hello Carrie'. Below the greeting, there are three tabs: 'Approved Items', 'Pending Items', and 'Messages'. The 'Pending Items' tab is selected, displaying a table of pending items. The table has two columns: 'Item' and 'Date'. Each item row includes a 'Delete' link. The item listed is: Sweater (Dec. 16, 2018, 4:12 p.m.). At the bottom of the page, there is a link to the 'Privacy Policy'.

Item	Date	Delete
Sweater	Dec. 16, 2018, 4:12 p.m.	Delete

[Privacy Policy](#) of UniTrade

User dashboard - Messages - Inbox

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only



Category

About Us Sell Dashboard Logout

Hello Tony

Approved Items

Pending Items

Messages

Inbox

Messages Received

Outbox

Item

Hi Tony, I'd like to buy this book.

Sender

Date

Action

Cracking the Coding Interview - Fifth Edition

Hi Tony, I'd like to buy thi...

Carrie

2018-12-16 16:09

[Reply](#)

Compose

[Privacy Policy](#) of UniTrade

User dashboard - Messages - Outbox

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only



Category

About Us Sell Dashboard Logout

Hello Tony

Approved Items

Pending Items

Messages

Inbox

Messages Sent

Outbox

Item

Hi Carrie, no problem, I'll be on campus the rest of the week. Call me at 111-111-1111 to schedule a time to meet.

Receiver

Date

Action

Cracking the Coding Interview - Fifth Edition

Hi Carrie, no problem, I'll...

Carrie

2018-12-16 16:14

[Reply](#)

Compose

Brown Shirt

Hello can I get a discount?

admin

2018-12-14 00:07

[Reply](#)

[Privacy Policy](#) of UniTrade

User dashboard - Messages - Compose

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

UniTrade

Category Search

About Us Sell Dashboard Logout

Hello Tony

Approved Items Pending Items Messages

Inbox **Compose New Message**

Outbox

Compose

Item: Cracking the Coding Interview - Fifth Edition

Receiver: Carrie

Message:

Send

[Privacy Policy](#) of UniTrade

Sell page

← → ⌂ ⌂ Not Secure | onlinestore-env.us-west-1.elasticbeanstalk.com/create_item/

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

UniTrade

Category Search

About Us Sell Dashboard Logout

Post Item to Sell

Title*:

Price*: 0.00

Description:

Category*:

Image*: No file chosen
Note: Maximum image upload size is 3 MB.

Note: it may take up to 24 hours for administrator to approve the item.

[Privacy Policy](#) of UniTrade

Sell success page

SFSU-Fulda Software Engineering Project CSC 648-848 Team 10, Fall 2018. For Demonstration Only

The screenshot shows a web page titled "UniTrade". At the top, there is a navigation bar with links for "About Us", "Sell", "Dashboard", and "Logout". Below the navigation bar, a message reads: "Thank you for the item submission! Your item has been successfully submitted for approval. The administrator will post your item within 24 hours if it is approved. Please check your dashboard for updates. Thank you." At the bottom of the page, there is a link to "Privacy Policy".

Admin site - filter items by approved (showing items not approved here)

The screenshot shows the Django administration interface for the "Onlinestore" app, specifically the "Items" list view. The top navigation bar includes links for "Home", "Onlinestore", and "Items", along with user information and log-out options. On the left, a sidebar allows selecting an item type: "ITEM", "basketball", or "Sweater". A "Select item to change" dropdown menu is open, showing the same three options. To the right, a "FILTER" sidebar is visible with the heading "By approved" and three options: "All", "Yes", and "No". The main content area displays a table with two items listed, both of which are currently selected (indicated by a blue background). The table columns include "Name" and "Description".

Admin site - approve an item by checking the approved checkbox and click save

Django administration

WELCOME, ADMIN | VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Onlinestore > Items > Sweater

Change item

HISTORY

Title:

Price:

Description:

Category:  

Image: Currently: uploads/sweater.jpg   Change: No file chosen

Seller:  

Approved

Database Table Screenshots

User table

	id [PK] serial	password character varying(128)	last_login timestamp with time	is_superuser boolean	username character varying	first_name character	last_name character	email character varying(254)	is_staff boolean	is_active boolean	date_joined timestamp with time zone
1	1	pbkdf2_sha256\$36000\$pKdRPyWmdX	2018-12-17 00:19:	TRUE	admin	''	''	admin@admin.com	TRUE	TRUE	2018-11-13 10:13:50.425297+00
2	3	pbkdf2_sha256\$36000\$xUsXslR2G4	2018-12-17 00:07:	FALSE	Carrie	''	''	test@example.com	FALSE	TRUE	2018-11-13 19:36:57+00
3	5	pbkdf2_sha256\$36000\$94Wb7eI0SU	2018-12-13 20:29:	FALSE	Henry	''	''	test@example.com	FALSE	TRUE	2018-11-13 19:37:41+00
4	7	pbkdf2_sha256\$36000\$x88r7fTnwR	2018-12-14 04:05:	FALSE	Inori	''	''	test@example.com	FALSE	TRUE	2018-11-13 19:40:18+00
5	9	pbkdf2_sha256\$36000\$HjjP3qGJ8D	2018-12-13 21:36:	FALSE	yourfirstu	''	''	omgzachary@yahoo.com	FALSE	TRUE	2018-11-14 00:46:16.407286+00
6	11	pbkdf2_sha256\$36000\$DeMlYDP8Y	2018-11-26 22:05:	FALSE	Guest	''	''	guest@guest.com	FALSE	TRUE	2018-11-26 22:04:57.63272+00
7	12	pbkdf2_sha256\$36000\$EsB863svr	2018-12-11 22:26:	FALSE	test1	''	''	test@example.com	FALSE	TRUE	2018-12-03 00:15:15.708154+00
8	13	pbkdf2_sha256\$36000\$I0wMKbDYlu	2018-12-05 22:57:	FALSE	user1	''	''	user1@mail.com	FALSE	TRUE	2018-12-05 22:57:30.430699+00
9	14	pbkdf2_sha256\$36000\$7rX4qzV4KN	2018-12-05 23:27:	FALSE	user2	''	''	user2@mail.com	FALSE	TRUE	2018-12-05 23:27:31.464318+00
10	15	pbkdf2_sha256\$36000\$DFhY7V9J7s	2018-12-08 00:52:	FALSE	testme	''	''	testme@mail.com	FALSE	TRUE	2018-12-08 00:52:24.725745+00
11	16	pbkdf2_sha256\$36000\$Jp4k7SM4k	2018-12-10 20:52:	FALSE	buyer	''	''	buyer@buy.com	FALSE	TRUE	2018-12-10 20:52:33.321752+00
12	17	pbkdf2_sha256\$36000\$Qd3ufWYKa1	2018-12-13 19:04:	FALSE	mark	''	''	mark@mark.com	FALSE	TRUE	2018-12-13 19:04:19.083278+00
13	18	pbkdf2_sha256\$36000\$07JMR6CY08	2018-12-14 19:43:	FALSE	Jenny	''	''	example@test.com	FALSE	TRUE	2018-12-14 03:59:05.992582+00
14	19	pbkdf2_sha256\$36000\$1GSx3qI530	2018-12-17 00:13:	FALSE	Tony	''	''	example@test.com	FALSE	TRUE	2018-12-14 04:47:13.15838-00
15	20	pbkdf2_sha256\$36000\$D5SRCjuEATp	2018-12-14 19:42:	FALSE	david	''	''	toloyelot@gmail.com	FALSE	TRUE	2018-12-14 19:40:36.756341+00
*											

Category table

	id [PK] serial	name character varying(30)	slug character varying(50)
1	1	Clothing & Accessories	clothing-accessories
2	2	Electronics	electronics
3	3	Furnitures	furnitures
4	4	Books	books
5	6	Events	events
6	7	Others	others
*			

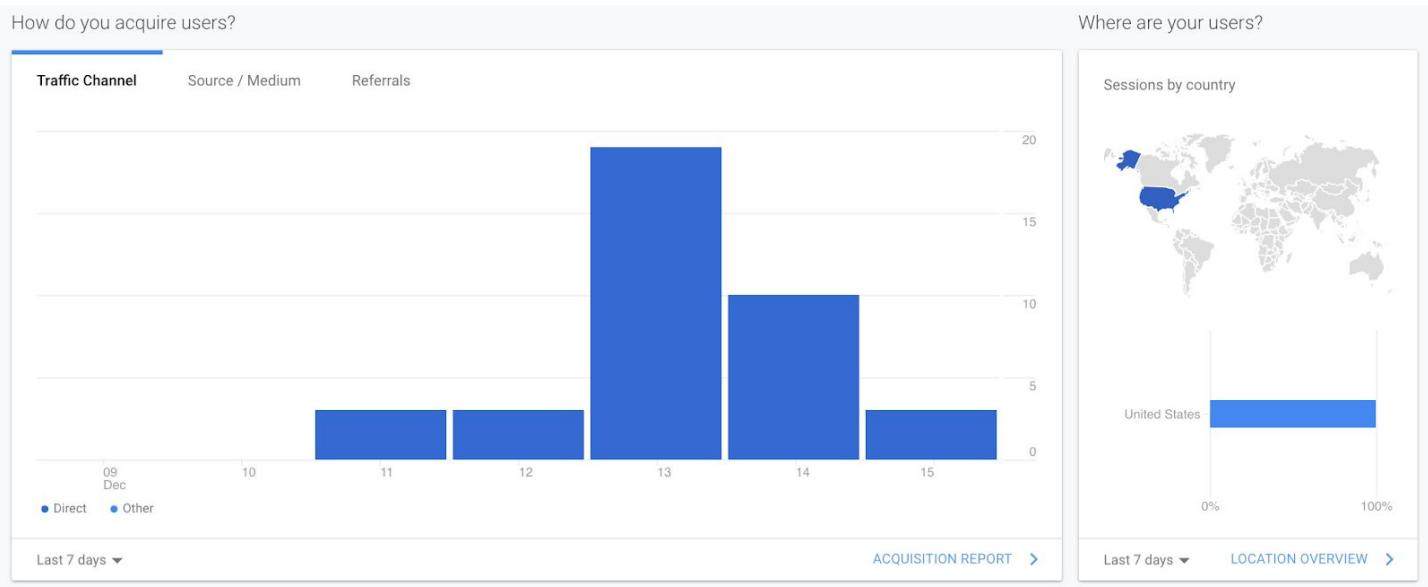
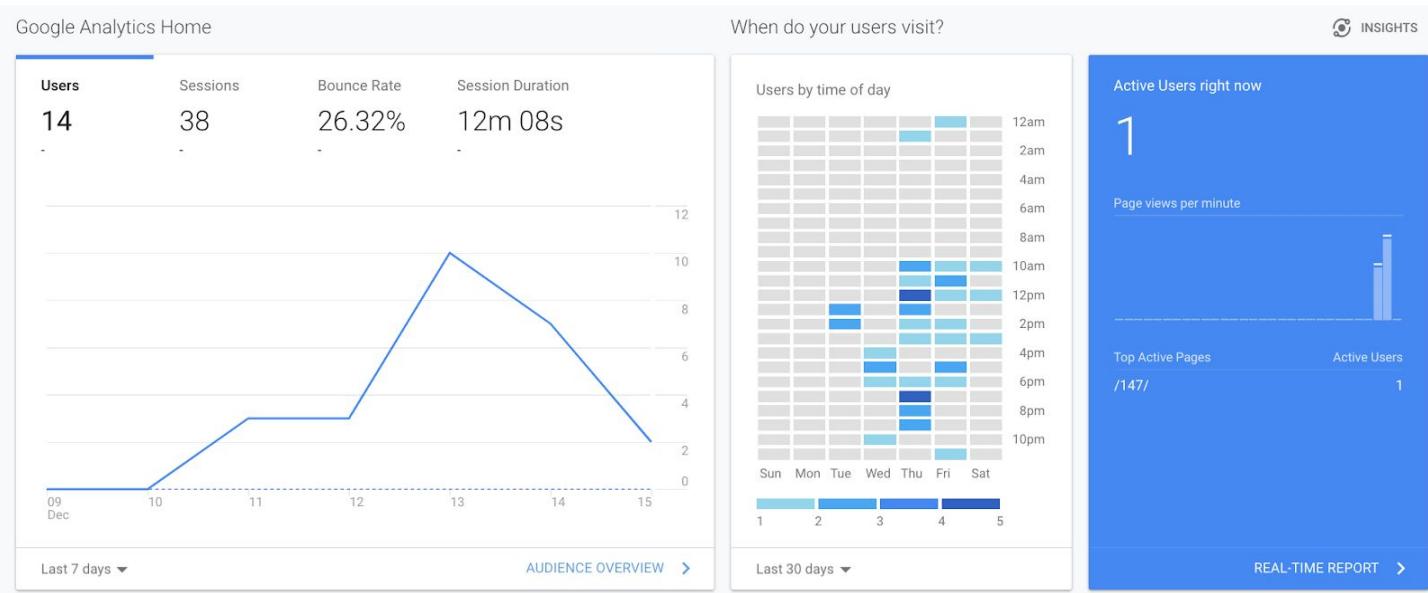
Item table

	id [PK] serial	title character varying(100)	price numeric(12,2)	description text	create_time timestamp with time zone	image character varying(100)
1	86	basketball	10.00	basketball	2018-12-13 19:03:49.284846+00	uploads/basketball.jpg
2	87	Jacket	35.00	Water-resistant, insulated jacket	2018-12-13 20:28:21.862527+00	uploads/jacket.png
3	89	Dell Laptop	200.00	Used Dell laptop for sale. Still in box.	2018-12-13 20:28:10.957105+00	uploads/laptop.jpg
4	90	GRE Book Bundle	75.00	6 GRE prep books + vocabulary	2018-12-13 21:00:18.547364+00	uploads/gre_books_d807jAP.jpg
5	92	Periodic Table Poster	10.00	''	2018-12-14 19:14:00.30493+00	uploads/periodic_table.jpg
6	93	Cosmic Calendar	15.00	''	2018-12-15 01:15:58.475858+00	uploads/cosmic_calendar.jpg
7	94	Lab Goggles	10.00	Used lab goggles in good condition	2018-12-14 04:56:12.399639+00	uploads/lab_goggles.jpg
8	95	Office Chair	35.00	''	2018-12-13 20:56:04.271347+00	uploads/chair.jpg
9	96	Introduction to Algorithms	55.00	Book for CSC510	2018-12-14 04:56:40.764979+00	uploads/algorithms-book_ghMfdmk.jpg
10	97	CPR Training - 12/18/18	49.00	We offer 3 CPR training sessions	2018-12-14 04:56:02.188535+00	uploads/cpr.jpg
11	98	Black Shirt	25.00	''	2018-12-14 04:25:11.87029+00	uploads/Black_Shirt.jpg
12	99	Blue Polo	25.00	''	2018-12-14 04:25:16.260229+00	uploads/Blue_Polo.jpg
13	100	Blue Shirt	25.00	''	2018-12-14 04:25:18.645813+00	uploads/Blue_Shirt.jpg
14	101	Brown Shirt	25.00	''	2018-12-14 04:55:22.460759+00	uploads/Brown_Shirt.jpg
15	102	Dino Long Sleeve	25.00	''	2018-12-15 01:15:38.090107+00	uploads/Dino_Long_Sleeve.jpg
16	103	Hoodie	25.00	''	2018-12-14 04:25:38.944943+00	uploads/Hoodie.jpg
17	104	Male Casual Denim	35.00	''	2018-12-14 04:26:06.71104+00	uploads/Male_Casual_Denim.jpg

Message table

	id [PK] serial	msg text	timestamp timestamp with time zone	item_id integer	receiver_id integer	sender_id integer
1	9	Hello can I get a discount?	2018-12-14 08:07:09.398496+00	101	1	19
2	12	Hi Tony, I'd like to buy this book.	2018-12-17 00:09:29.517219+00	138	19	3
3	13	Hi Carrie, no problem, I'll be on car	2018-12-17 00:14:48.886295+00	138	3	19
*						

Google Analytics Plot



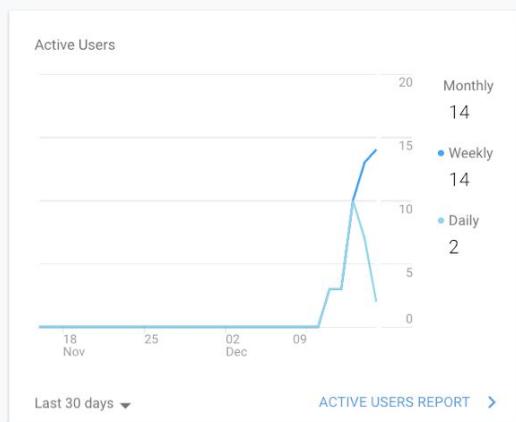
What pages do your users visit?

Page	Pageviews	Page Value
/	256	\$0.00
/items/electronics/	110	\$0.00
/message/	66	\$0.00
/create_item/	57	\$0.00
/users/dashboard/approved_items	55	\$0.00
/create_item_success/	43	\$0.00
/items/all/	38	\$0.00
/users/login/	36	\$0.00
/users/dashboard/pending_items	26	\$0.00
/items/clothing-accessories/	23	\$0.00

Last 7 days ▾

PAGES REPORT >

How are your active users trending over time?



Last 30 days ▾

ACTIVE USERS REPORT >

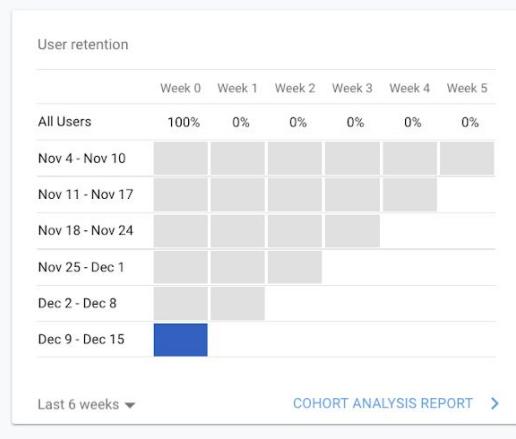
What are your top devices?



Last 7 days ▾

MOBILE OVERVIEW >

How well do you retain users?



Last 6 weeks ▾

COHORT ANALYSIS REPORT >

Team Member Contributions



Xinhuan Qiu

Fri 12/14/2018 4:32 PM



Reply all | ▾

To: ● Jianhong Kuang; ● Mario Leonilo III Mercado Marcos; ● Zachary Taylor Martin; ● PoHung Wang; ● Rong Tian Huang;
● Toluwanimi David Oyewumi
Cc: ● Mario Leonilo III Mercado Marcos; ● PoHung Wang; ● Zachary Taylor Martin; ● Toluwanimi David Oyewumi; ● Rong Tian Huang
Â

Hi Team,

Here is a list of my contributions to the project:

- Set up the Django application and PostgreSQL database.
- Deployed the application to Elastic Beanstalk.
- Drafted instructions and communicated with team on how to set up the app locally and commit changes to GitHub.
- Built the vertical prototype which includes the initial implementation for search and the nav bar layout.
- Implemented slug and thumbnail.
- Added delete to items and privacy policy.
- Applied text overflow and tooltip to item names and messages.
- Worked on the message dashboard and displaying messages on item detail page for sellers.
- Delegated jobs to team members, held weekly meetings and monitored the progress of the project.

I made 86 commits to the dev branch.

Best,
Xinhuan (Alicia) Qiu



Jianhong Kuang

Fri 12/14/2018 12:14 PM



| ▾

Hi all,

Here is the list of my contributions, by looking at commits

1. Messaging function (back end), between users.
2. Messaging tab (front end), in Dashboard. (some by me, some by Alicia)
3. Contact seller via messaging (back end)
4. Redirecting the logged-in user back to previous page (back end)
5. Populate the message field with previously saved data from anonymous user (back end)

The number of commits is 5.



Zachary Taylor Martin

Fri 12/14/2018 6:41 PM

Reply all | ↻

To: Mario Leonilo III Marcos <neo_marcos29@yahoo.com>; Jianhong Kuang; Mario Leonilo III Mercado Marcos; PoHung Wang; Rong Tian Huang; Toluwanimi David Oyewumi; Xinhuan Qiu ✉

Hello everyone,

My list of contributions are as follows:

- Helped Alicia set up AWS server
- Helped Alicia set up backend. Configured the database in settings.py and learned how to deploy a project to the server
- Created Log in Page
- Created Sign up Page
- Validated some of the input for create_item page
- Limited image upload size to under 3MB and made only image formats acceptable uploads (jpg, jpeg, png, png, etc.)
- Worked on redirecting users to registration before being able to sell an item

I made 3 commits to the dev branch

...



Mario Leonilo III Marcos <neo_marcos29@yahoo.com>

Fri 12/14/2018 4:50 PM

Reply all | ↻

To: Jianhong Kuang; Mario Leonilo III Mercado Marcos; Zachary Taylor Martin; PoHung Wang; Rong Tian Huang; Toluwanimi David Oyewumi; Xinhuan Qiu ✉

Hi all,

Here is my list of contributions:

- Added recommended items when Search and Category yields no result
- Made Search input and Category selection persistent
- Validated text input for item search
- Added sort by date and price for items.
- Added approved filter for Admin site
- Added search within categories
- Populated website with items
- Added Forgot Password to Login page
- Added display for number of items search found
- Added a condition to search for items in all categories and return it as a recommended item if found.

In total, I made 21 commits to the dev branch.

Regards,
Mario Marcos (Neo)



Toluwanimi David Oyewumi

Fri 12/14/2018 8:22 PM

To: ⚡ Zachary Taylor Martin; Mario Leonilo III Marcos <neo_marcos29@yahoo.com>; Jianhong Kuang;
Mario Leonilo III Mercado Marcos; PoHung Wang; Rong Tian Huang; Xinhuan Qiu ✉



Reply all | ↻

Hi Everybody,

Here's the list of my contributions

- Worked on improving the item view layout
- Created the template for the user dashboard
- Modified the category search interface
- Updated the homepage view

I made a total of 12 commits.

Thank you.

Tolu.



Rong Tian Huang

Fri 12/14/2018 5:41 PM

To: Xinhuan Qiu
Cc: Mario Leonilo III Mercado Marcos; PoHung Wang; Zachary Taylor Martin; Toluwanimi David Oyewumi; Jianhong Kuang
✉



Reply all | ↻

Hello,

Here are are the contributions I've made:

1. Add items to show on home by most recent
2. Add approved & pending templates for Dashboard
3. Linked Dashboard items to their specific detailed page
4. Add button to item window

There are 11 commits in total.



PoHung Wang
Yesterday, 9:20 AM



Hi Everybody,

Here's the list of my contributions

- Setup initial Github repo
- Created item Detail in Page
- Created item Create in Page
- Updated item Detail page layout as requested
- Updated item Create page layout as requested

I made a total of 15 commits.

Thank you.

PoHung Wang(Paul)

Post Analysis

CSC648/848 Post Analysis

Xinhuan Qiu
Sun 12/16/2018 8:18 PM

To: Jianhong Kuang; Mario Leonilo III Mercado Marcos; Zachary Taylor Martin; PoHung Wang; Rong Tian Huang;
Toluwanimi David Oyewumi

Cc: Xinhuan Qiu

  Reply all | 

Hi Team,

As the semester is ending, it is a good time to retrospect on what we did for our UniTrade project and learn from our success and mistakes.

Throughout the project, there have been several challenges. One was the initial set up of our software stack. Since most of us had very limited experience with building a web application, it was difficult to come up with a plausible stack and install them properly on everyone's computer. We overcame this challenge by doing research on software stacks and testing out different combinations of databases, frameworks and cloud servers. Eventually we picked the one that actually worked during the testing period. Since we allowed time for experimenting and testing, it helped reduce the risk of errors and incompatibility during the actual installation and implementation periods and also allowed us to pick the stack that best fits our skill sets and purposes. Many of us have also ran into issues while installing the softwares. We solved those issues by discussing them during our meetings and helping each other out.

Another challenge was to make everyone follow the agile software development processes. This required one to constantly communicate with his or her team via scrum updates, meetings, Slack, GitHub and emails, to stick to the deadlines of each sprint while giving enough time for review and testing, to review others' pull requests promptly, to properly document your changes, etc. As a team lead, I addressed all processes in our meetings and also wrote some of them down, but I still noticed mistakes such as not posting scrum updates by the agreed-upon time, posting incomplete scrum updates (often missing what you will do), not completing the assigned task by deadline, not updating the issues on Github promptly and so on. I did not address some of the issues right away because they were relatively minor and would not hinder the whole project, but it is important to be able to adhere to the proper procedures in a teamwork environment.

As a team lead, I would spend more time explaining all the rules, writing down the processes in more detail and sharing them with the team. Also, I would address any mistakes more promptly, and show my appreciation to those who did a good job adhering to those processes. I would also encourage everyone to take more initiative in discovering bugs, coming up with ways to improve our website and taking ownership of their features.

In general, the whole process went smoothly. I appreciate everyone's contribution to our website. We had our challenges but we were able to overcome them and deliver a functional product in the end. Even though there are still a lot we can do to make our website better, I am happy with what we have accomplished so far. Some of you have demonstrated strong work ethic and ability to learn from the very beginning and some of you have improved a lot through this project. I believe that we have all gained valuable experiences from teamwork and have also acquired many new skills. It has been a pleasure working with every one of you and I wish you good luck in your future endeavors.

Thank you,
Xinhuan (Alicia) Qiu