SW Engineering CSC648/848 Fall 2019

Team 14 / Global Team

Milestone 2

Gator Trader:

Use cases, High Level Requirements and Architecture

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1. Functional requirements

Priority 1:

Unregistered Users:

1. Users shall be able to have a sort of directory available for users to navigate.
2. Users shall be able to click sell Item button to easily start selling an item.
3. Users shall be able to do lazy registration (don't ask for login until last steps).
4. Users Shall be able to search book by class at SF state.
5. Users shall be able to filter by price either high to low or low to high, or by range.
6. Users shall be able to search items.

Registered Users:

7. Users shall have access to everything unregistered users have.
8. Users shall be able to log in.
9. Users shall be able to message user to buy item.
10. Users shall be able to set up designated meet up spots for the sale.
11. Users shall be able to sell items by categories. Categories would be Electronics, Furniture, Notes, Books, Miscellaneous.
12. Users shall be able to post items by categories. Categories would be Electronics, Furniture, Notes, Books, Miscellaneous.
13. Users shall be able to have a dashboard to show messages from potential buyers.

Administrator:

14. Admin shall be able to take listings down after 30 days to prevent old listings.
15. Admin shall be able to delete listings.
16. Admin shall NOT be able to edit listings
17. Admin shall be required to approve listings before going live.
18. Admin shall be able to delete users.

Priority 2:

Unregistered Users

       1. Users shall be able to be brought to a separate page with more information when clicking on an item.

Registered Users

   2. Users shall be able to to flag their item as sold.

Priority 3:

Unregistered Users

       1. Users shall be able to use Reporting systems for scammers/flakes/mean people.
       2. Users shall be able to see ratings for sellers, shown from 1-5 stars.
       3. Users shall be able to see a general profile for Users where ratings, reviews, and general info are shown.
       4. Users shall be able to see a picture of SF State on main page.
       5. Users shall be able to see Footer page that includes our about me.

2. UI Mockups

Buy Item

Landing page
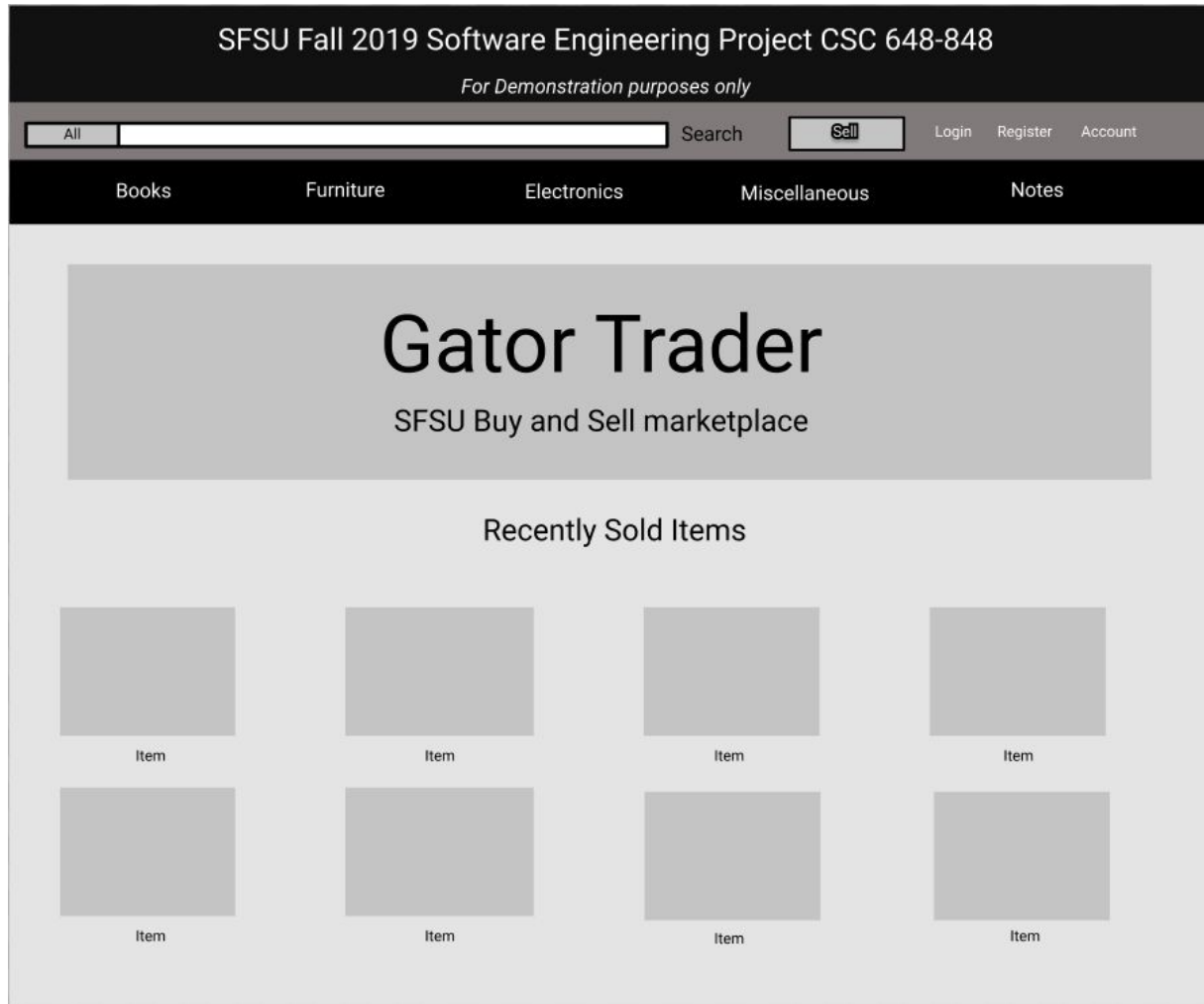
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For Demonstration purposes only

| All | | Search | Sell | Login | Register | Account |

Books   Furniture   Electronics   Miscellaneous   Notes

Browse Items

Filters

15 out of 103 Results shown

Item page

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For Demonstration purposes only

| All | | Search | Sell | Login | Register | Account |

Books   Furniture   Electronics   Miscellaneous   Notes

Item Description

Name of Item and User

Condition

Picture of Item

Picture of Item

Description

Picture of Item

Picture of Item

Message Seller

Sell Item

Landing page

All		Search	Sell	Login	Register	Account

Books	Furniture	Electronics	Miscellaneous	Notes

Gator Trader

SFSU Buy and Sell marketplace

Recently Sold Items

Item	Item	Item	Item
Item	Item	Item	Item

Sell Item page

| All | | Search | Sell | Login | Register | Account |

Books   Furniture   Electronics   Miscellaneous   Notes

Sell Item

Name of Item

Class Number (Optional)

Condition report

Description

Category

Price

Pictures (Optional)

Upload

Clear All   Post item

Account Page

For Demonstration purposes only

| All | | Search | Sell | Login | Register | Account |

Books   Furniture   Electronics   Miscellaneous   Notes

Account Dashboard

| My Items | Messages | Wishlist |

Administrator

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Administrator Portal

Alerts

Flagged Post   X ★

Flagged Post   X ★

Flagged Post   X ★

Review   Messages

3. High level Architecture, Database Organization

1. **DB organization**:

TABLE: USERS:
Columns:

- **ID** - Int (**Primary Key**)
- **Name** - Varchar
- **Email** - Varchar
- **Password** - Varchar
- **Photo (Optional)** – Varchar (link)

TABLE: ITEM
Columns:

- **ID** - Int (**Primary Key**)
- **Name** - Varchar
- **Descriptions** - Text
- **Price** - Int
- **Categories** - Varchar
- **Photo** – Varchar (link)

TABLE: SELLER
Columns:

- **ID** – Int (**Primary Key**)
- **Seller_ID** – Int (**Foreign Key**)
- **User_ID** – Int (**Foreign Key**)

TABLE: MESSAGE
Columns:

- **ID** – Int (**Primary Key**)
- **Message Body** – Text
- **User_ID** – Int (**Foreign Key**)
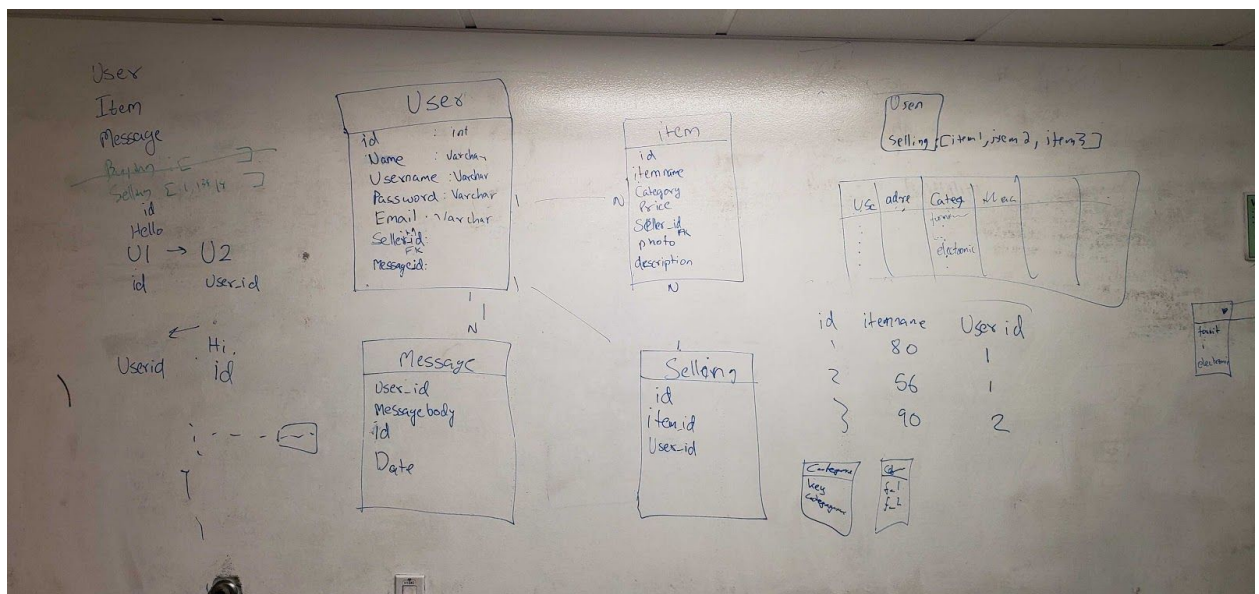- **TimeStamp** – DATETIME

1. **Media storage:**
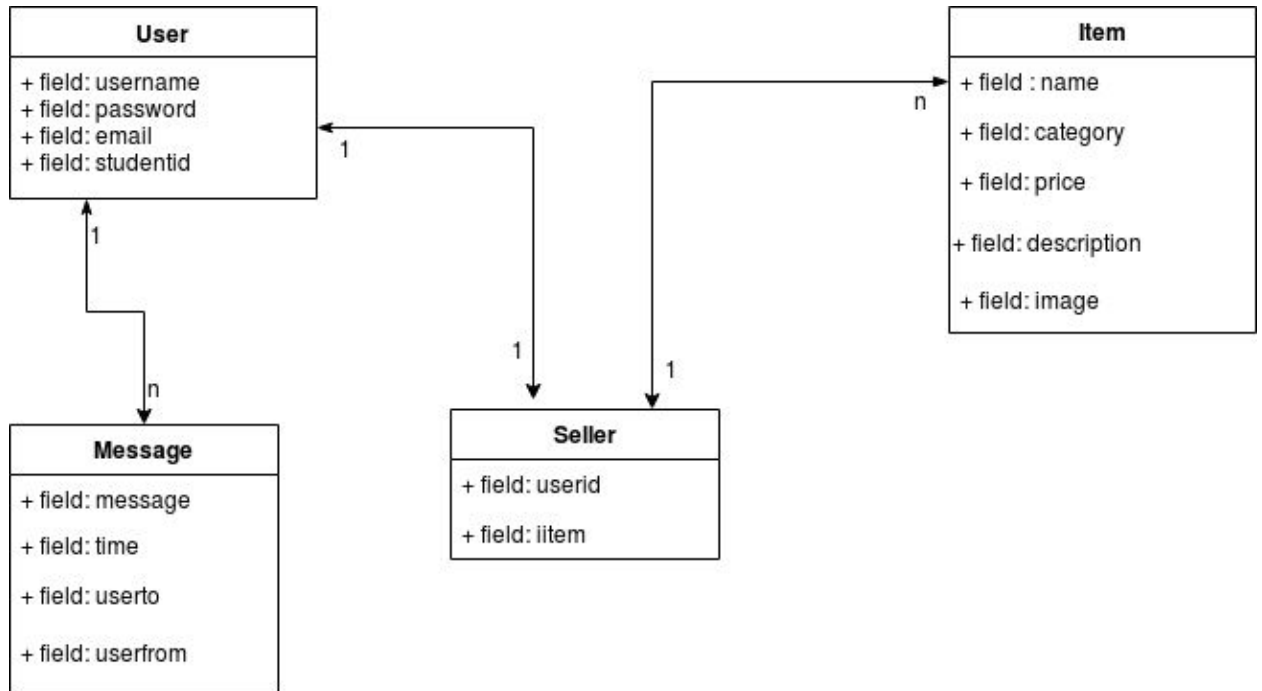
We will be using Filesystems to store images

1. **Search/filter architecture and implementation:**

Search Algorithm: SQL and %like

1. **APIs**

Google Maps API

User

+ field: username
+ field: password
+ field: email
+ field: studentid

Item

+ field : name
+ field: category
+ field: price
+ field: description
+ field: image

Message

+ field: message
+ field: time
+ field: userto
+ field: userfrom

Seller

+ field: userid
+ field: iitem

n

1

1

1

1

n

5. Risks

Skill Risks

- Each individual on our team has limited experience working in Javascript, with the two most experienced being on the front end team. Furthermore, we are unaware of the competence of the members in Germany. We plan to use the same IDE and use code review in order to make sure our code is understood across the team and is optimized based on the knowledge of everyone.

- Everyone on our team has little to no background in back end development, making these the hardest tasks we will face. With our team only being a size of 4 people, excluding the Fulda team, we will all pitch in ideas to help our appointed Back-end lead in coding.

Schedule Risks

- Since we are the Global team, we will be working directly with 3-4 students from Fulda University in Germany. The time difference from San Francisco to Fulda is about 8 hours, so communication will be tough. We plan to solve this by using email, as well as setting up meetings early in the morning Pacific time.

Technical Risks

- As of the time of writing, there are no known technical risks. However, we will be keeping a closer eye on our Back End development in order to ensure a strong foundation for our application. This will also help us down the road to do things like adding filters.

Teamwork Risks

- Our teamwork risks include merge conflicts with our team in Fulda, as well as making sure our application is designed as we intend. This will be solved by assigning more priority two tasks to Fulda rather than priority one, as well as keeping front end development to a minimum by our team in Fulda.

Legal/content Risks

- To avoid any legal issues, we will NOT be using any logo of SF State, as well as sourcing pictures from open source data. In addition, we will also allow team members to self populate the database with any of their old school items. We will also not be implementing a payment method, and all transactions will be completed by the buyer and seller via a third party method (Venmo, cash at meetup, etc.).

6. Project Management

Managing tasks for Milestone 2 was similar to how we did Milestone 1. However, this time only Greg and Shubham were responsible for compiling the document, as it contained more Front-End information. Diagrams and information about the Database were given to use by the Back-End lead and put into the document. The tasks in the Vertical Prototype were assigned to our Back-End team which is Suraj and Michael. Currently, we hold a team meeting before every class, and briefly speak afterwards. In the meeting before class, we go over what has been done so far, what the status of other tasks are, as well as work on any current/remaining tasks. After class, Shubham assigns any new tasks that come about from the class, as well as reminds team members of what tasks still remain. In the future, we will be using an application like Trello in order to assign tasks based on prioritized functions listed in this document. This will allow easier access for the team in Germany to visually see what their tasks are. In addition, we will continue to use our workspace on Slack to communicate any issues, concerns, or quick status updates on our project. We have currently separated our Slack into 3 different channels. One is named #software-project which is designated for any current tasks or reminders. The second channel is #general where we can post any general info about the project or ask for help. The third channel is #helpfullinks where we can post any links we find helpful whilst studying anything used in our Framework.