SW Engineering CSC648/848
Fall 2019 Section 01
SFSU Buy & Sell

Team 06 (Local Team)

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Milestone Two

Submitted to -

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1. Functional Requirements - prioritized

Priority 1 (must have):

Non-registered users

- User shall Browse on the website
- User shall be able to search for the products
- User shall be able to access the photos of the product

Registered users

- User shall proceed to checkout and purchase the product
- User can shall decide the pickup spot and pickup time

Admin

- Admin shall have the right of approving the products for posting live
- Admin should not be able to change the content of the post, but can request the seller before approving the post.

Priority 2 (desired):

Non-registered users

- User shall be able to select the products from the product categories
- User shall be prompted to register before checkout

Registered users

- User shall be able to contact the seller for more details about the product
- While contacting the seller a prefilled message will pop out, which includes the product details.
- User shall be able to add product for selling on the website

Admin

- Admin shall be able to remove a particular user.

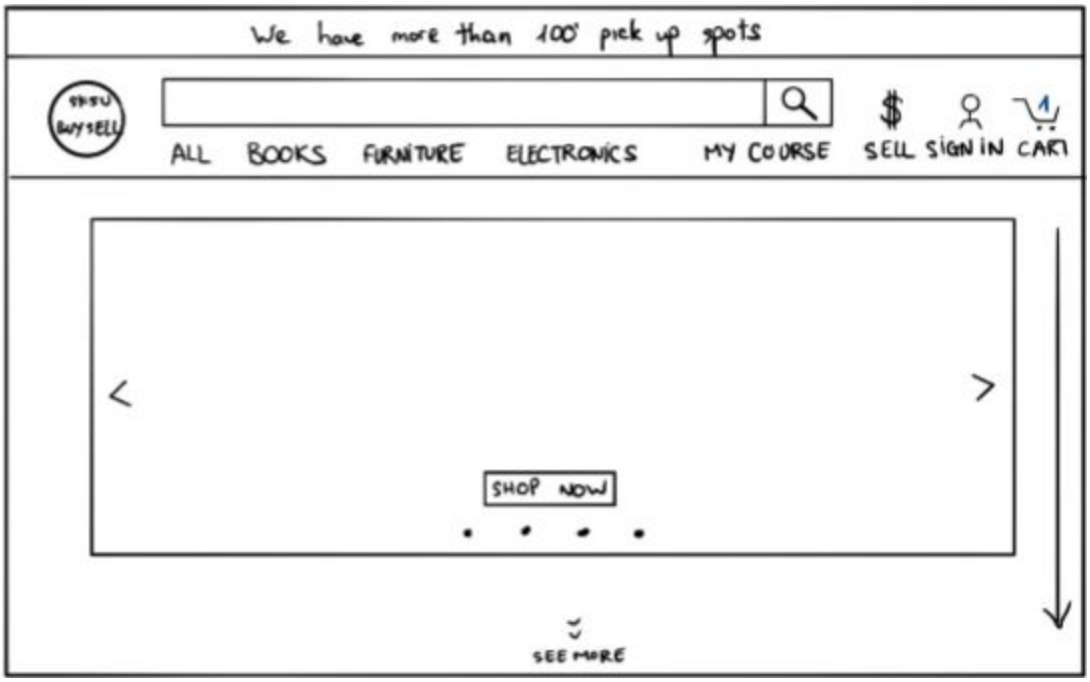
Priority 3 (opportunistic as defined in the class):

Registered users

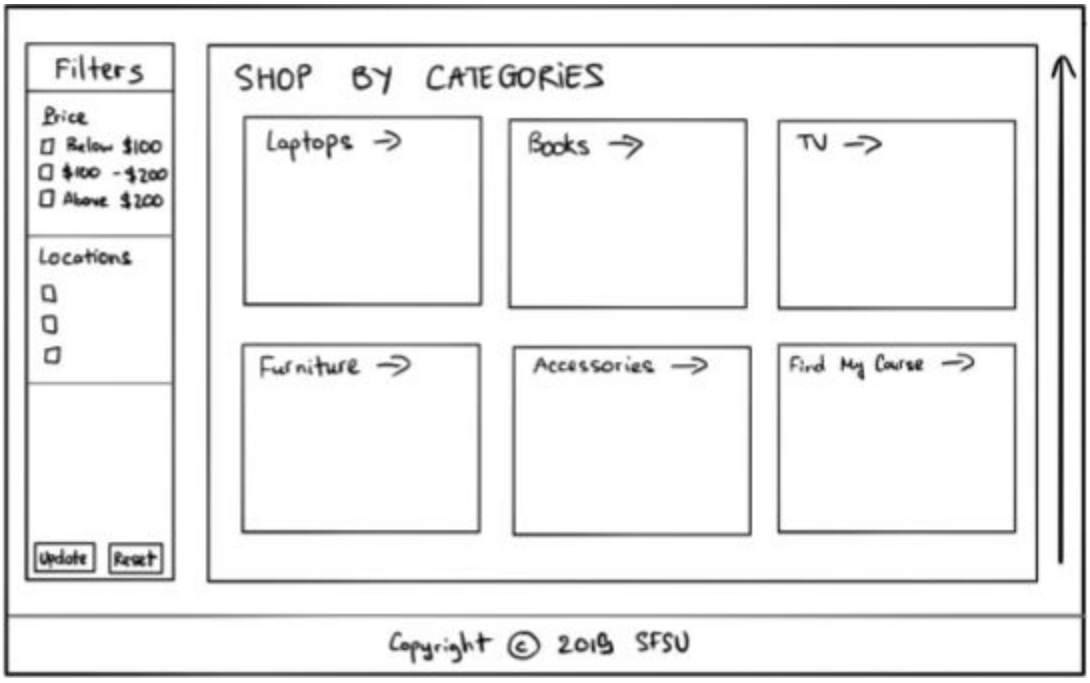
- Will be able to rate the user.

2. UI Mockups and Storyboards (high level only):

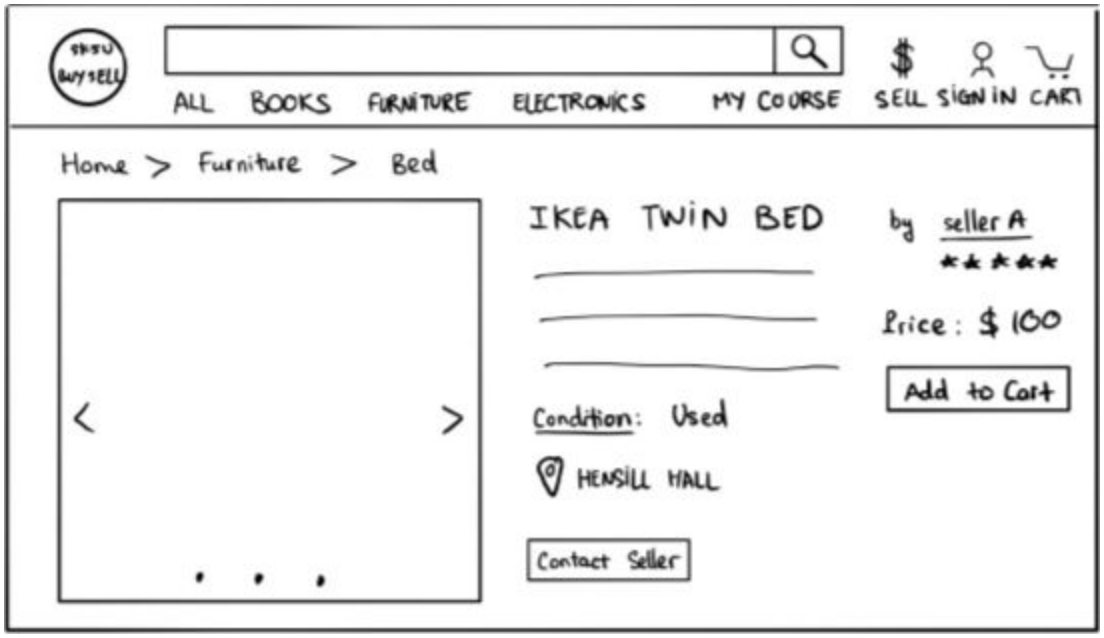
Home page



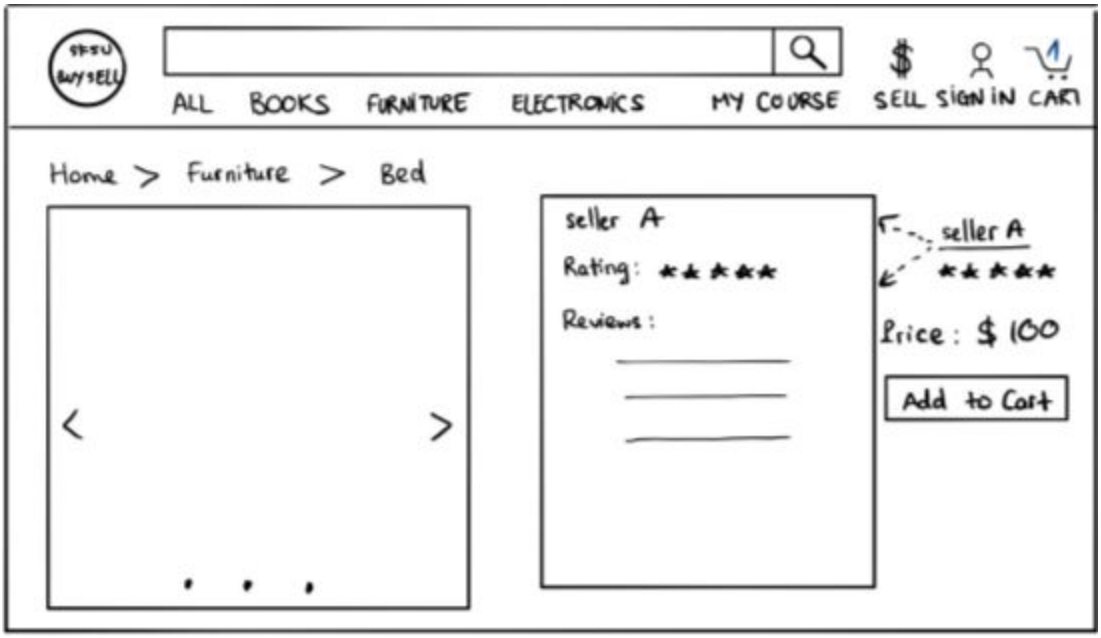
Shop page



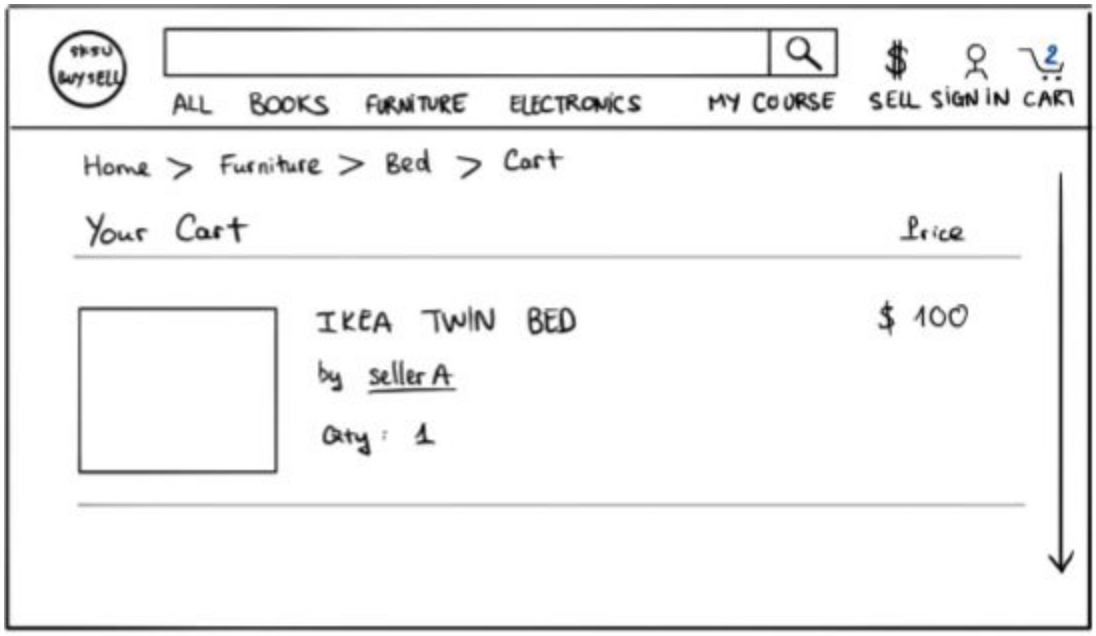
Item details

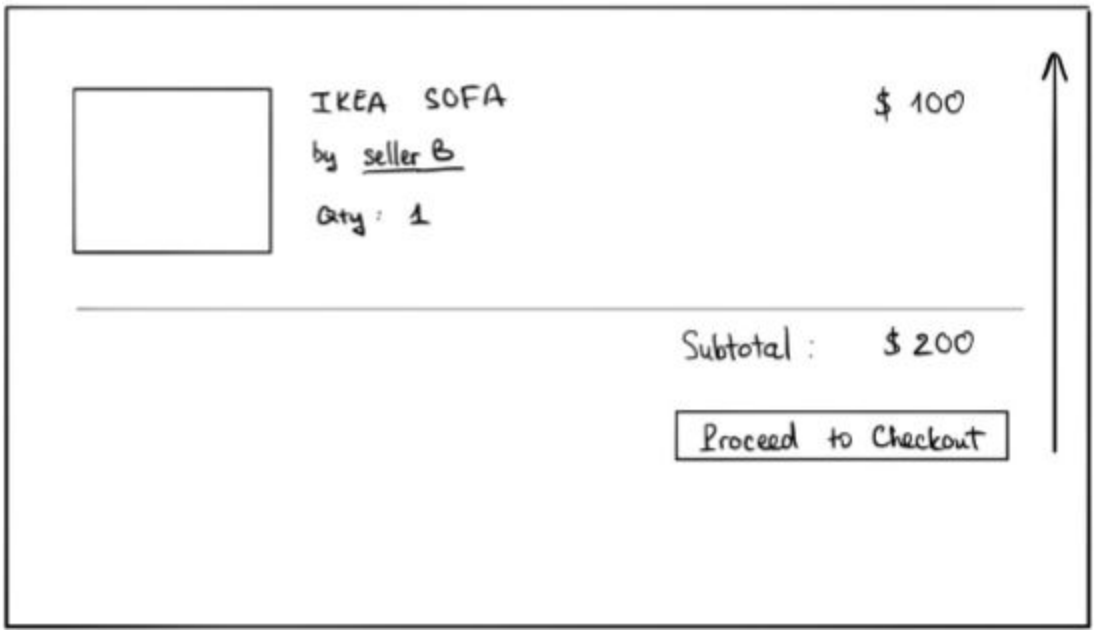


Seller Info popup window

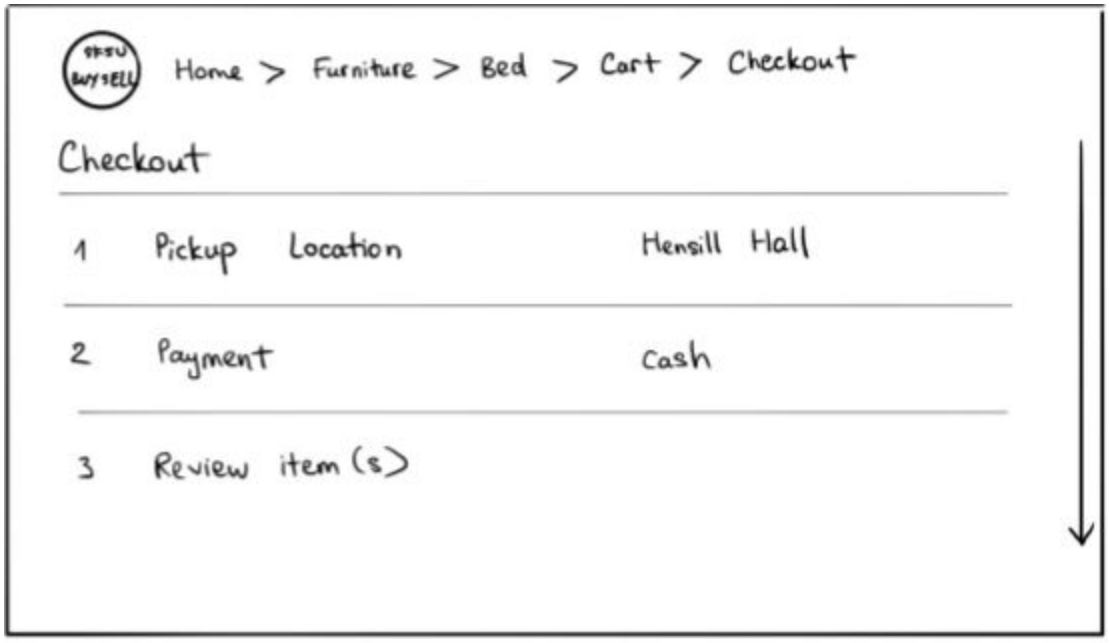


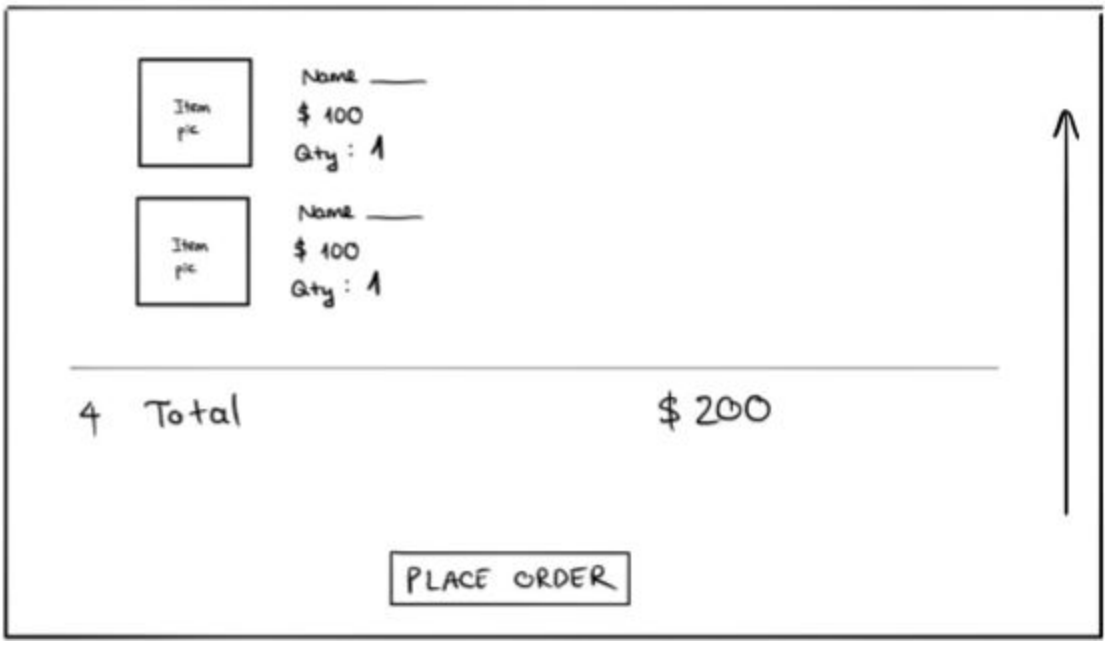
My Cart


ALL BOOKS FURNITURE ELECTRONICS MY COURSE SELL SIGN IN CART
Home > Furniture > Bed > Cart
Your Cart
Price
IKEA TWIN BED
$ 100
by seller A
Qty : 1

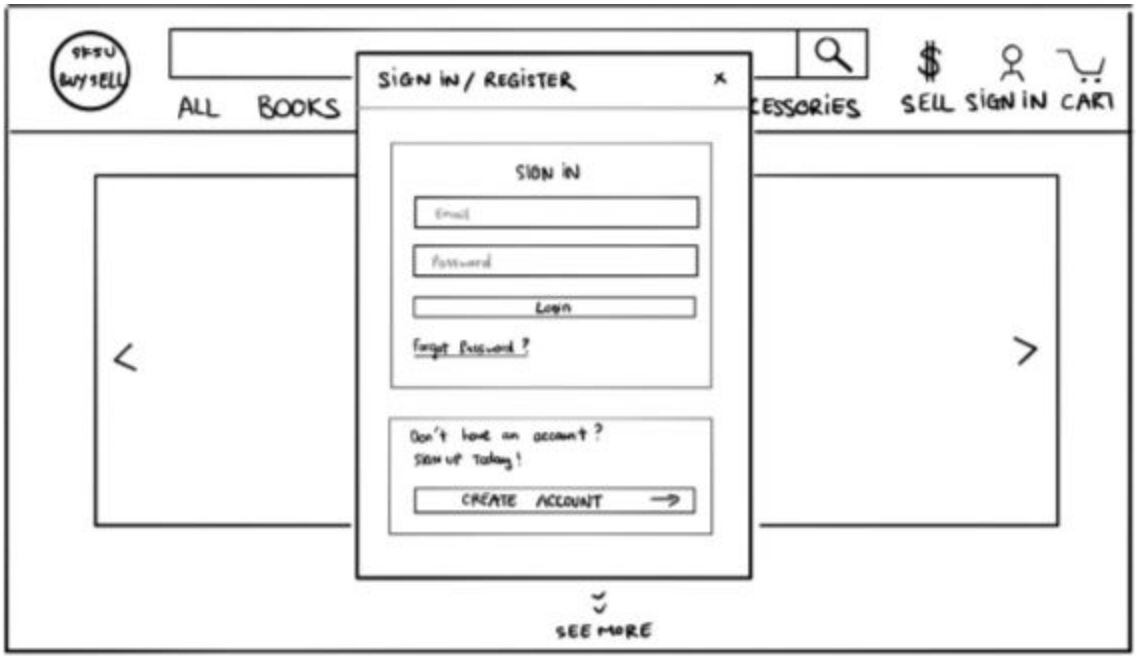

IKEA SOFA
$ 100
by seller B
Qty : 1
Subtotal : $ 200
Proceed to Checkout

Check out & Shipment



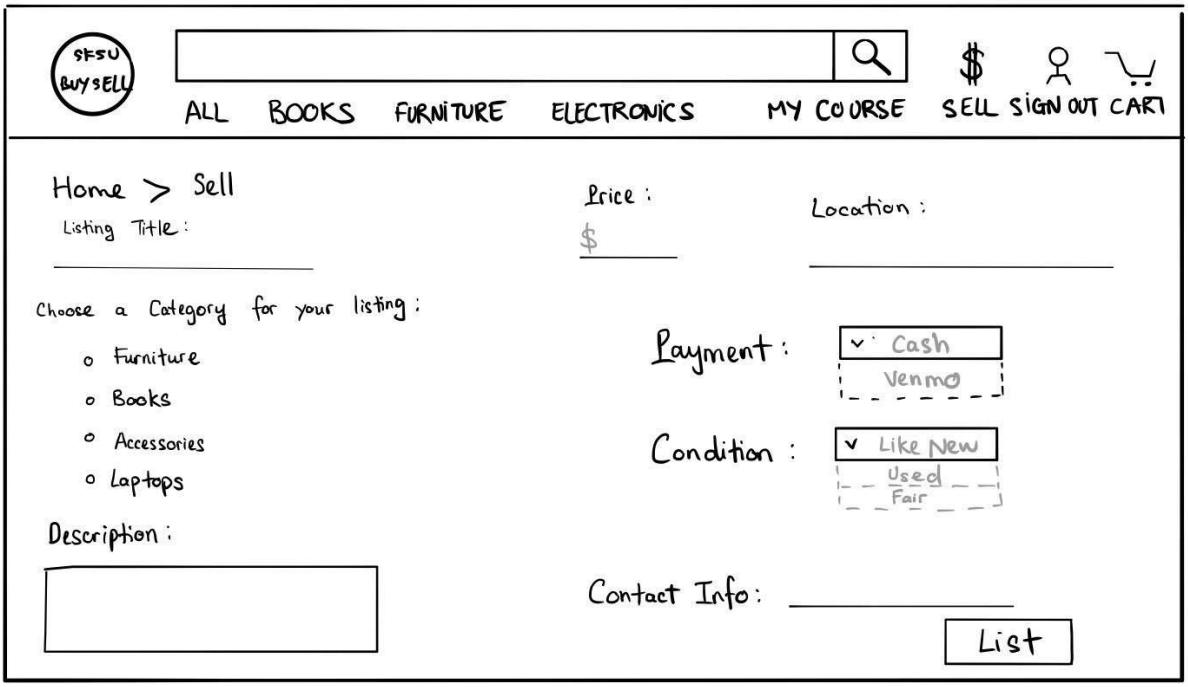


Sign in popup window

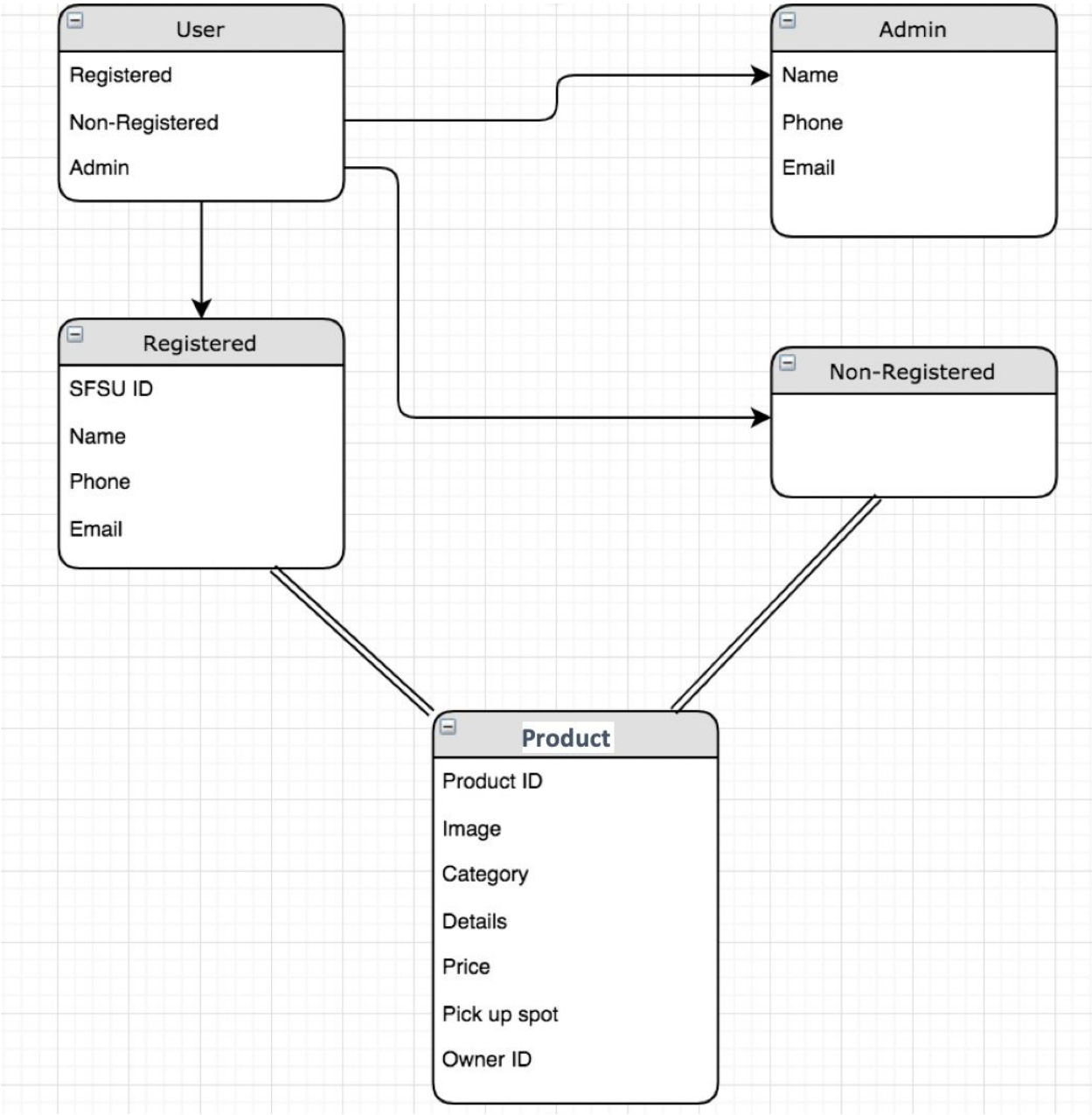


Sign up

Selling Window:



3. High level Architecture, Database Organization



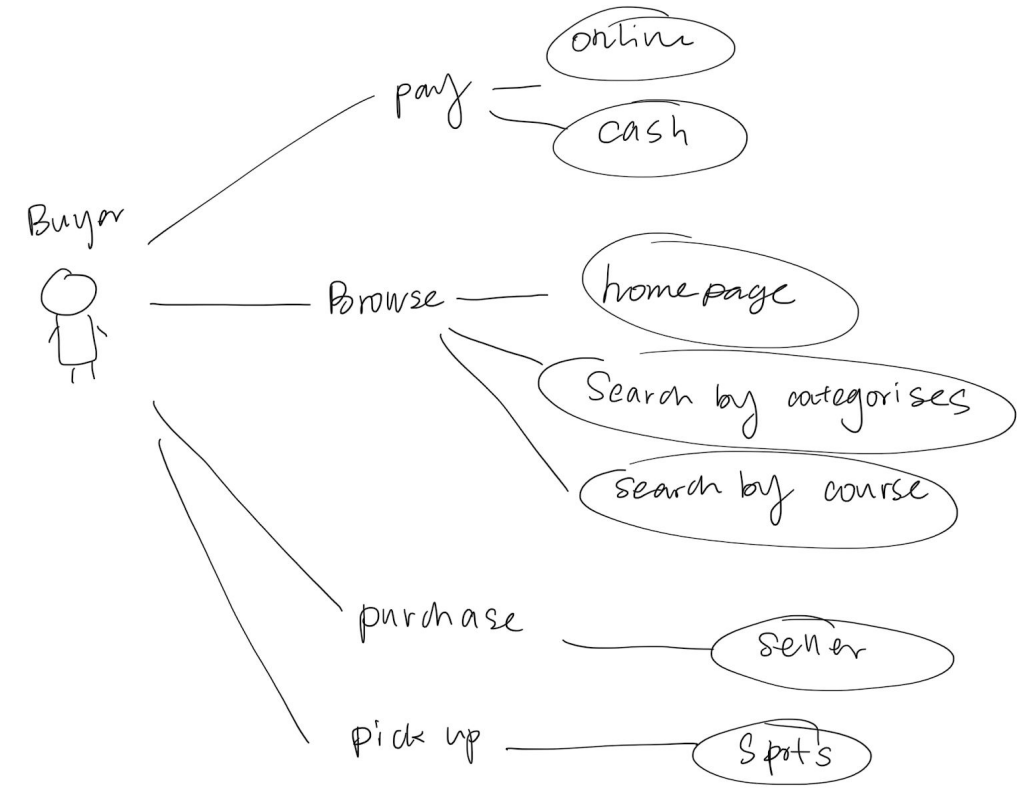
There are three main types of Users-- Registered, Non-Registered, and Admin. These three entities with separate attributes within them. Registered users are stored within the database with their SFSU IDs, their name, their email, their phone number, and an array of products that they will sell. Non-registered users are not stored in the database yet since

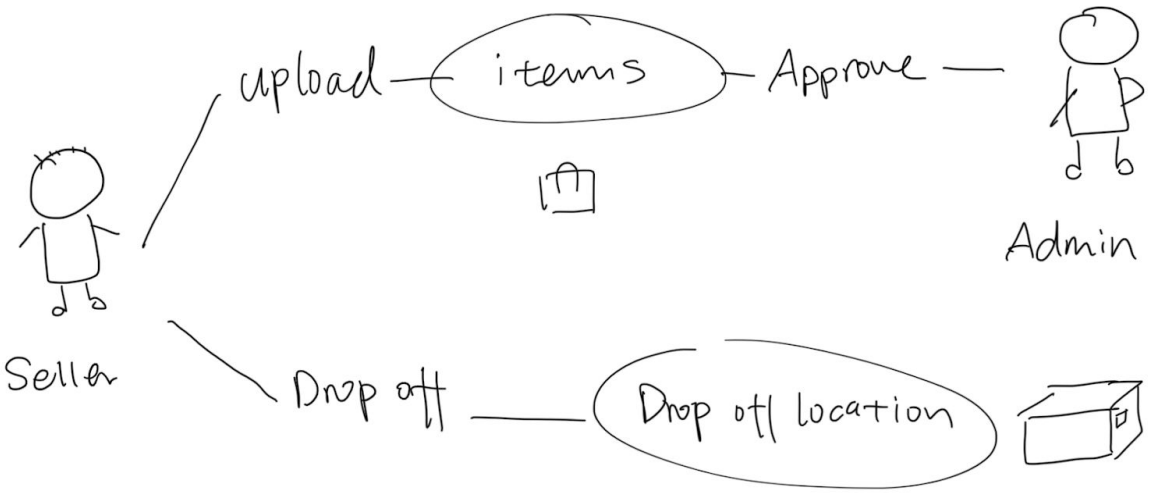
anyone is able to access our website without needing to give any additional information to us. Lastly, Admins are stored in the database by just their phone, name and email. Registered users and Non-registered users are able to have access to the information of the Product but only Registered users are actually able to buy and sell Products. Within our database, the attributes that Products have Product ID, the image of the product, the details of what the product is, the price, category (furniture, clothing, sporting goods, etc.), pick up spots (Hensil Hall, Thornton Hall, Burke Hall, etc.), and the Owner ID.

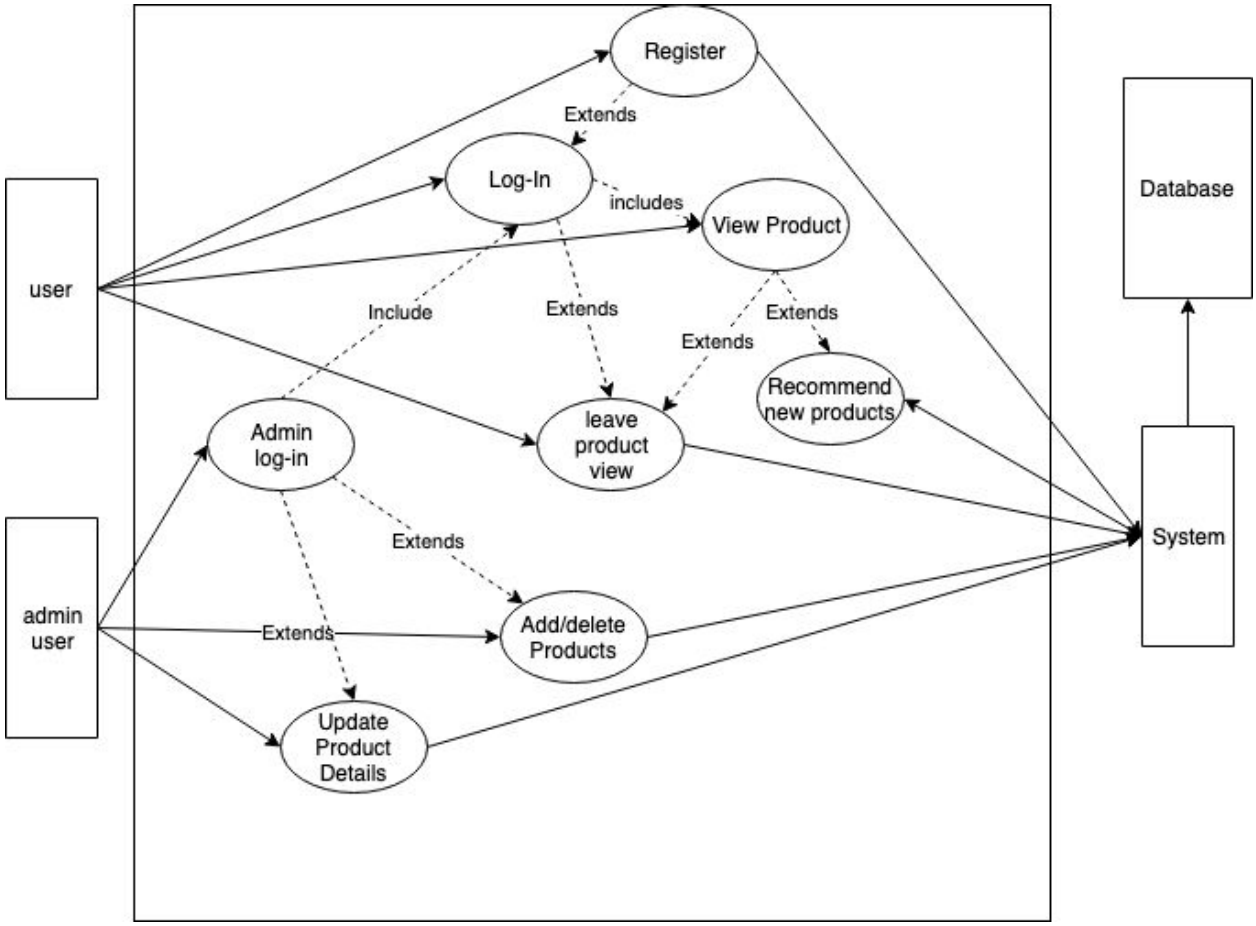
For media storage, we will be using Google Cloud storage. We will have the images directly uploaded to Google Cloud Storage and then we will use the generated reference link as a foreign key to call our local database. For search/filter architecture and implementation, we will be using the %like operator for the search. For example, if the user types “table” in the search box, the clicks on search. It will return all the products having “table” as a text from the description/title. Since we aren’t using our own APIs, we will be using REST APIs-- such as ADD, DELETE, PULL, POST, and CREATE. Also, we will be using filtering systems such as “Price-- High to Low” and other array sorting algorithms. Last, for SW tools and frameworks currently, there are no changes in the SW tools.

4. High Level UML Diagrams:

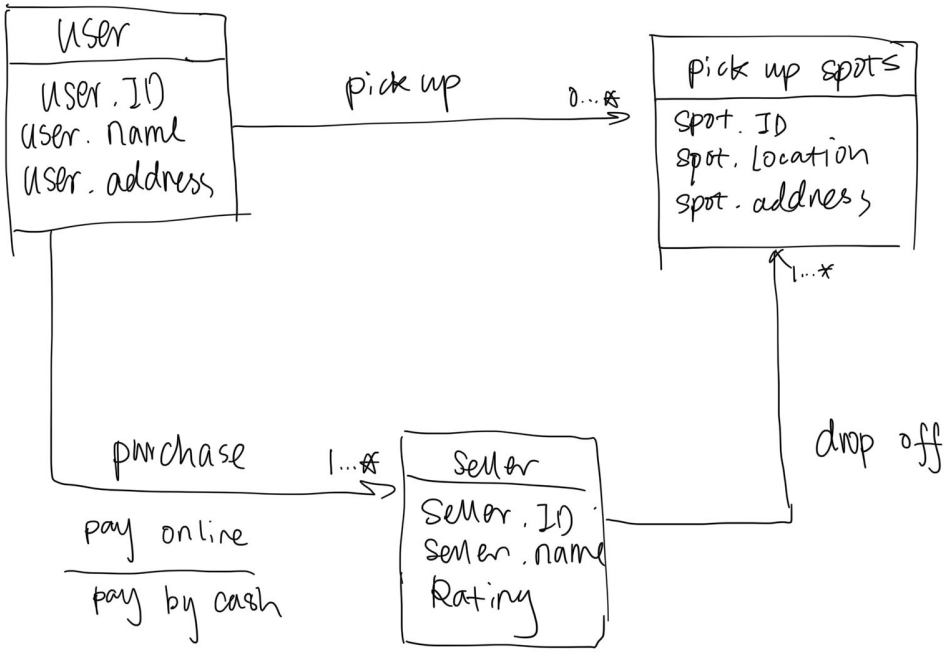
a*) High-level UML class diagrams* for implementation classes of core functionality, i.e. functionality with provided interfaces. Focus on a main high-level classes only (one or at most two levels deep). This must reflect an approach to implementing your site.


Buyer
pay
online
cash
Browse
homepage
Search by categorises
search by course
purchase
seller
pick up
Spots


upload
items
Approve
Admin
Seller
Drop off
Drop off location



b) *UML Component and deployment diagrams*



5 .Identify *actual* key risks for your project at this time:

- **Skills risks:** Lack of familiarity with the stack from our team (nodejs/expressjs, mysql, aws unfamiliar)

- **Schedule risks:** None at the moment,

- **Technical risks:** Security, difficulties with backend, can resolve with meeting and creating strategies to the issues.

- **Teamwork risks:** None at the moment, could potentially be more difficult to coordinate backend/frontend once they split

- **Legal/Content risks:** Potential copyright issues with images, potential copyright issues with future code borrowing

Skills risks: Our team's primary skill risk is our lack of experience with our software stack. We chose it due to our familiarity with javascript, but are still unfamiliar with MySQL, node/express, and aws as a whole. We plan to overcome this via online resources provided as there is plenty of open-source documentation available. We have not run into any issues with scheduling as we have been cooperative with meeting times as well as making deadlines.

6. Project management:

One of the most important keys to a successful software engineer team is the human factor. Thus, to make all the team members get up to date with the development of the project, every week, all team members will meet up on Monday before class to report all the current work. The front-end and back-end leads will check with the front-end and back-end developers about a particular task they are working at and make sure everything is on track. Then, the front-end and back-end leads will report their current development work to the team lead. The team lead has to make sure all milestone deadlines are met and submit the documents to the instructors through formatted emails. The team lead also has to inform back to team members about the milestone's feedback from the instructors.

Slack and Trello are the two software that is used to ensure effective communication between team members. Slack is used for informal communication about meetup time and general non-technical tasks. Trello is used for technical-related tasks such as a list of tasks the front-end and back-end have to do, the current task each developer is working on, or tasks that have been done.