

SW Engineering CSC 648/848 Section 02 Spring 2017
Professor D. Petkovic and Anthony Souza, San Francisco State University

GatorSell

Milestone 2
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Team 10 (Local)

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History of Revisions		
Version 1.1	3/14/2017	Refine mockups, add deployment diagram
Version 1.2	3/20/2017	Edited data definitions, mockups, architecture

1. Use Cases

1. Guest Users

Frederico is a first-year **student** attending SFSU. He is looking for the best deal on math textbooks and has been advised to check out **GatorSell**. Upon arrival to the website, Frederico browses the list of posted **items**. Frederico finally finds a textbook that suits his needs and attempts to purchase the **item**. In order to continue with his purchase, Frederico is prompted to register. After becoming a **registered user**, Frederico successfully purchases his textbook. Frederico utilizes **GatorSell's Safe Meet** and chooses a place on campus to pick up his textbook. Frederico uses the **messaging system** to confirm the time and location of their meeting and easily picks his textbook up the following day.

2. Registered User (Seller)

Mei is a soon-to-be graduate from SFSU and wants to sell her couch to a fellow SFSU student. Mei goes to **GatorSell** and attempts to sell her **item**. In order to proceed, Mei is asked to login. After logging in, Mei uploads a few **photos** of her couch, lists the **price**, the corresponding **category**, and a brief **description** of her couch. Once Mei fills out these components, she posts the **item** to the website.

3. Registered User (Buyer)

Rhiannon is moving into an apartment close to her campus, SFSU, and wants to purchase a reasonably-priced laptop in her area. Safety is of paramount importance to Rhiannon and she knows that she can utilize **GatorSell's Safe Meeting** feature in which she can pick up her **item** at a safe location on-campus. She makes her way to **GatorSell** and browses the list of posted **items**. Rhiannon subsequently finds a laptop properly suited to her needs and attempts to purchase the **item**. Rhiannon is then told to login so that she can continue with the purchase. After logging in, Rhiannon purchases her laptop. In combination with **GatorSell's Safe Meet**, Rhiannon uses the **messaging system** to confirm their meeting time and picks up the laptop from the **seller** at a cafe on campus.

4. Admin

Chad is the **system administrator** for **GatorSell**; in order to execute his duties, he logs into the website upon arrival. Chad is responsible for ensuring that explicit content does not appear throughout the website and reviews the posts of **sellers**. A new post contains indecent language and Chad removes the post from the website; the **seller** has attempted to post such content previously and by not following website guidelines, Chad bans the **user** from **GatorSell**.

2. Data Definition

Activated account: A **Registered user account** that has been validated to have been created by an active San Francisco State University **student**. All **registered users** are logged in on **activated accounts**.

Admin: Student in charge of managing the website and the appropriateness of the content **sellers** post. Can access all data and content on the website. Needs access to administration tools like mySQL workbench.

Banned account: A **Registered user account** that has demonstrated an unwillingness to comply with our terms of service as determined by the **admin**.

Buyers: Registered users who want to buy **items** on the website.

Category: A way for **buyers** to relate their **items** with other **items** of similar traits. A way to help **buyers** find a particular **item**.

1. Books: any form of print media
2. Games: video game **items**, sports **items**, board game/card game **items**
3. Furniture: **items** essential for everyday living
4. Electronics: electronic devices or anything that uses electronics to run

Description: The text used to describe an **item** that is for sale. It is written by the **seller** and can be viewed by all **users**.

GatorSell: The name of this web application.

Guest User: A **user** of unknown origins who may wish to buy or sell an **item**. Does not need to register.

Items: What **students** will buy or sell to other **students**.

1. **Price:** How much the **seller** will charge to sell their **item**
2. **Name:** What the **seller** calls their **item**
3. **Description:** More details about the **item**
4. **Category:** Group that the **item** is associated with
5. **Photos:** Images showing the **item** for sale

Photos: Photographs depicting an **item** that is for sale. They are uploaded by the **seller** and viewable by all **users**.

Registered User: a **student** who is registered on the website and has buying/selling privileges. Needs to login. Must have an **activated account** that is not a **banned account**.

Registered User Account: An account that is stored in the database server that contains pertinent information about **students** who are, or who have applied to be, **registered users**.

1. Name: the name of the **user**
2. Email: a valid sfsu.edu email address
3. (Optional) Address: used for recommending **Safe Meeting** locations
4. Phone: number that can be used to contact the **user**
5. Activated?: Has the **user** validated with the (simulated) emailed link?
6. Banned?: Has the **student** email address been banned?

Safe Meeting: A safe, designated place on campus where **buyers** and **sellers** can meet in person and complete transactions.

1. Locations: areas that can be used for transactions
2. Map: allows users to see nearby locations

Sellers: **Registered users** who want to sell **items** on the website.

Student: A person who is currently enrolled at SFSU.

User: The base class of all **guest users** and **registered users**.

3. List of Functional Specs

Priority 1 specs

1. **Users** shall have the option to browse **items**.
2. **Users** shall have the option to search items by **category**.
3. **Guest users** shall have all of the functional specs of **users**.
4. **Guest users** shall have the option to create a **registered user's account**.
5. **Guest users** shall be elevated to **registered users** after logging in to an **activated account**.
6. **Guest users** shall be required to log into an **activated account** prior to listing **items** for sale.
7. **Guest users** shall be required to log into an **activated account** prior to contacting **sellers** using the **messaging system**.
8. **Registered user's accounts** shall include legal contact information.
9. **Registered user's accounts** shall include a valid San Francisco State University email address.
10. **Registered user's accounts** shall initially be not **activated accounts**.
11. **Registered user's accounts** shall become **activated accounts** when they are verified with a (simulated) emailed web link response.
12. **Registered users** shall be logged in with **activated accounts** that are not **banned accounts**.
13. **Registered users** shall have all of the functional specs of **users**.
14. **Registered users** shall have the option to post **items** for sale.
15. **Registered users** shall have the option to contact **sellers** using the **messaging system**.
16. **Registered users** shall have the option to respond to messages sent to them via the **messaging system**.
17. **Sellers** shall include a **name** for their **items**.
18. **Sellers** shall choose appropriate **categories** for their **items**.
19. **Sellers** shall have the option to add up to five **photos** to their **items**.
20. **Sellers** shall have the option to add a **description** to their **items**.
21. **Sellers** shall have the option to remove their **items**.
22. **Sellers** shall have the option to require the use of **Safe Meeting** locations.
23. **Safe Meeting** locations shall be limited to on-campus facilities.
24. **Safe Meeting** locations shall have a map illustrating their locations.
25. **Buyers** shall have the option to require the use of **Safe Meeting** locations.
26. **Photos** shall be of the **items** being sold.
27. **Photos** shall not contain any human likeness in them.

- 28. **Descriptions** shall be limited to text that describes the **item**.
- 29. **Descriptions** shall be devoid of any personal information.
- 30. **Descriptions** shall be devoid of any contact information.

- 31. **Admin** shall have the option to ban **registered users**.
- 32. **Admin** shall have the option to contact **registered users**.
- 33. **Admin** shall have the option to delete **items**.
- 34. **Admin** shall have the option to delete **photos**.

Priority 2 Specs

- 35. **Users** shall have the option to search **items** by key phrase.
- 36. **Users** shall have the option to search **items** by key phrase within a specified **category**.

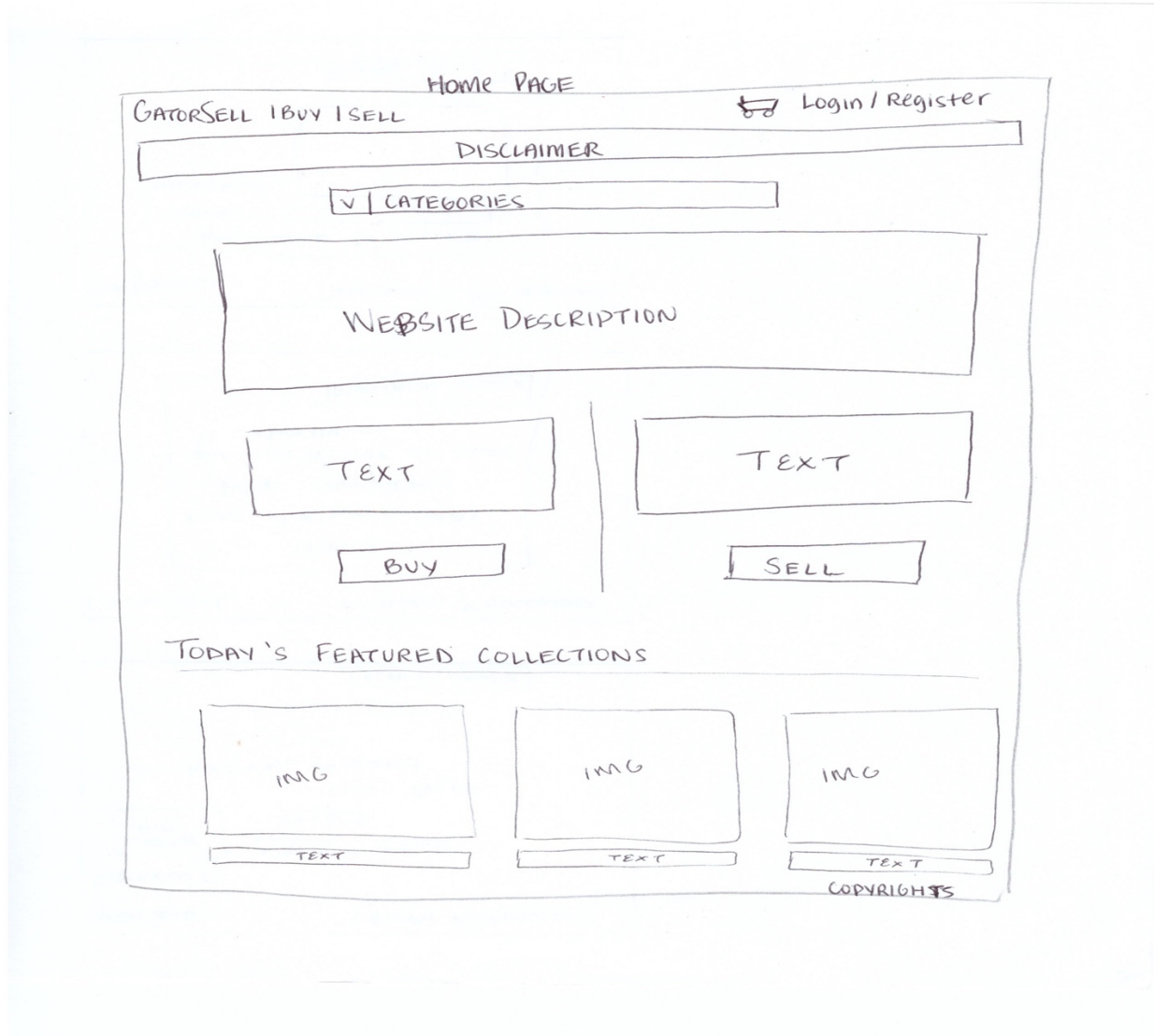
Priority 3 Specs

- 37. **Safe Meeting** locations shall not exceed 50 miles from campus
- 38. **Safe Meeting** location owners shall have the option, for an advertising fee, to offer coupons to **buyers** and **sellers**.

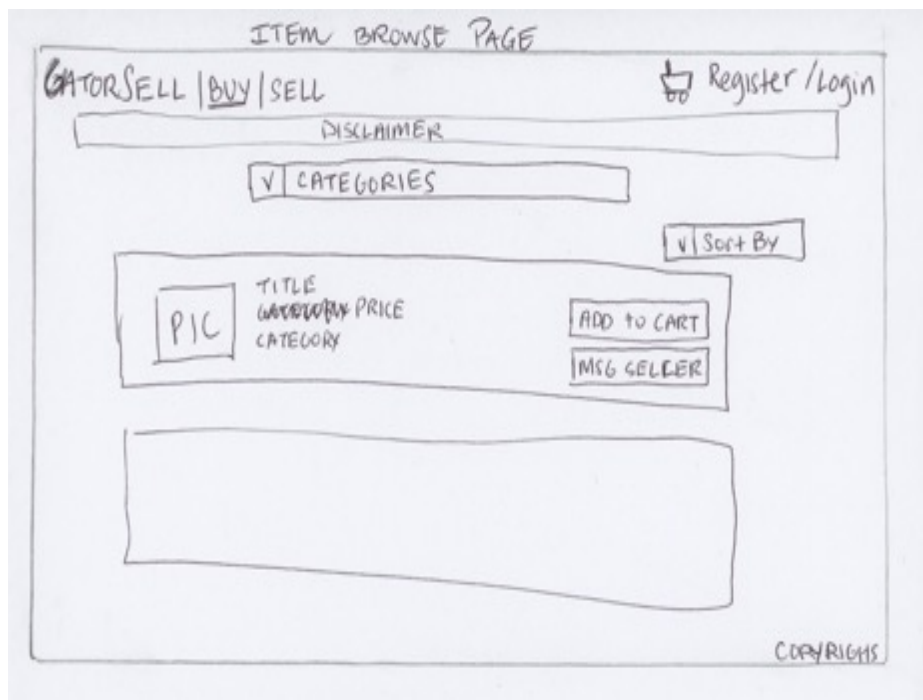
4. List of Non-Functional Specs

1. Application shall be developed using class provided LAMP stack
2. Application shall be developed using pre-approved set of SW development and collaborative tools provided in the class. Any other tools or frameworks must be explicitly approved by Anthony Souza on a case by case basis.
3. Application shall be hosted and deployed on Amazon Web Services as specified in the class
4. Application shall be optimized for standard desktop/laptop browsers, and must render correctly on the two latest versions of all major browsers: Mozilla, Safari, Chrome.
5. Application shall have responsive UI code so it can be adequately rendered on mobile devices but no mobile native app is to be developed
6. Data shall be stored in the MySQL database on the class server in the team's account
7. Application shall be served from the team's account
8. No more than 50 concurrent **users** shall be accessing the application at any time
9. Privacy of **users** shall be protected and all privacy policies will be appropriately communicated to the **users**.
10. The language used shall be English.
11. Application shall be very easy to use and intuitive. No prior training shall be required to use the website.
12. Google analytics shall be added
13. Messaging between **users** shall be done only by class approved methods to avoid issues of security with e-mail services.
14. Pay functionality (how to pay for goods and services) shall not be implemented.
15. Site security: basic best practices shall be applied (as covered in the class)
16. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development
17. The website shall prominently display the following text on all pages *"SFSU Software Engineering Project, Spring 2017. For Demonstration Only"*. (Important so as to not confuse this with a real application).

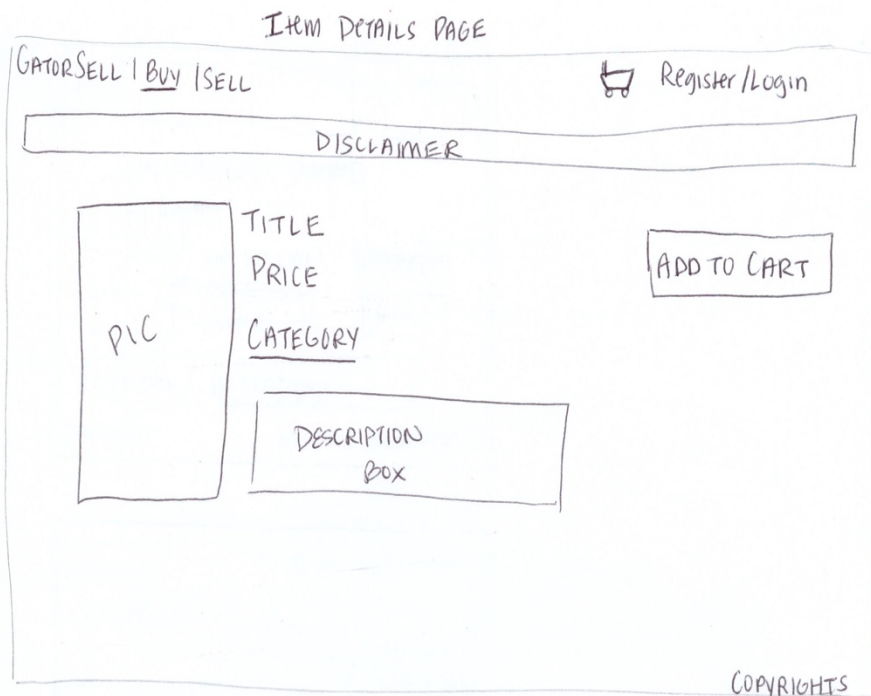
5. UI Mockups and Storyboards



- Homepage:
 - The first page every user will see when they go the **GatorSell**
 - Contains the header that can be observed on each page.
 - The Buy button will take user to the Item Browse Page
 - Sell will take user to Register/Login Page if the **user** is not signed in/registered or the Seller Profile Page if logged in
 - The cart icon will take the user to their shopping cart
 - Register/Login will take the user to the Register/Login Page
 - Images in the Featured Collections will take user to that item's details
 - Contains the footer that every subsequent page will have, copyrights, etc.



- Item Browse Page:
 - The Categories drop down menu allows the user to choose the category of **items** that appear on the page
 - The Sort By drop down menu allows the user to sort the **items** by price and date added
 - Each row in the body contains an **item** with details, if clicked **user** is taken to Item Details Page



- Item Details Page:
 - Contains the **picture**, **name**, **price** and **description** of the **item**
 - The Add to Cart button takes the **user** to Checkout Page if signed in or the Register/Login Page if not signed in/registered
 - The user can message seller to buy once the item is in the cart

CHECKOUT PAGE

HEADER

DISCLAIMER

CHECKOUT:

PIC	NAME	PRICE	
	<u>DELETE</u>		
		Total PRICE	

SAFE MEETING *Required

Options:

- ~~~~~
- ~~~~~
- ~~~~~
- ~~~~~

MAP

Message Seller to Buy

COPYRIGHTS

- Checkout Page:
 - Contains the **item's** information for the user to review
 - **Safe Meeting** allows user to suggest the place where **buyer** meets **seller**
 - Map allows user to see locations on campus
 - Message Seller to Buy button takes the user to the Message Seller Page if logged in or Register/Login Page if not logged in/registered

REGISTER/LOGIN PAGE (BUYER)

GATORSELL | BUY | SELL
✂ Register/Login

DISCLAIMER

Register

Name:

Email:

Password:

Confirm PWD:

PHONE:

☐ I agree to Terms & condition

Register

or

Login

Email:

password:

Login

COPYRIGHTS

- Register/Login Page:
 - To register, user enters in information, agrees to Terms and Conditions, and the Register button signs up the user and redirects back to the same page as logged in **registered user**
 - To login, user enters email/password and the Login button redirects them back to the same page as a logged in **registered user**

REGISTERED USER CHECKOUT Pg

HEADER Welcome Frederico!

DISCLAIMER

Checkout:

PIC	NAME	PRICE
	<u>DELETE</u>	

Total Price

SAFE MEETING *Required

Options:

- ~~~~~
- ~~~~~
- ~~~~~
- ~~~~~

MAP

Message Seller to Buy

COPYRIGHTS

- (Registered User) Checkout Page:
 - Same as Checkout Page, but reflects the **registered user** in the header

CONFIRMATION PAGE

HEADER

DISCLAIMER

Thanks!

Your purchase has been confirmed,
and your message has been sent.

you will receive an email shortly...

COPYRIGHTS

- Confirmation Page:
 - Contains a thank you message
 - Message Seller button takes the **user** to the Message Seller Page

HEADER

DISCLAIMER

Thanks for placing the order! Please message the seller to confirm purchase.

Message to Seller:

SUBJECT:

MESSAGE:

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- Message Seller Page:
 - User enters information in fields and submits message by Send Button
 - Subject line is already filled out with **item** detail
 - Send and Confirm button takes the user to the Confirmation Page

REGISTER / LOGIN PAGE (SELL)

GATORSELL | BUY | SELL
🔑 Register/Login

DISCLAIMER

Register

Name

email

PWD

CONFIRM PWD:

PHONE

☐ I agree to terms & condition

Register

OR LOGIN

email

PWD

Login

COPYRIGHTS

- Register/Login Page:
 - To register, **user** enters in information, agrees to Terms and Conditions, and the Register button signs up the **user** and redirects back to the same page as logged in **registered user**
 - To login, **user** enters email/password

SELLER PROFILE WATCH

HEADER

DISCLAIMER

ADD NEW POST

CHECK MESSAGES

Current Post:

0 posts

COPYRIGHTS

- Seller Profile Page:
 - Add New Post button takes the user to the Add New Post Page
 - Clicking on Check Messages will direct the user to all of their received and sent messages

ADD NEW POST PAGE

HEADER

DISCLAIMER

ADD NEW POST:

NAME:

PRICE:

CATEGORY:

DESCRIPTION:

PICTURE

Other

SAFE MEETING:

choose at least **2** options
that are convenient for
you:

Options -

☐ ~
☐ ~
☐ ~
☐ ~
☐ ~
☐ ~
☐ ~

Map

Other:

COPYRIGHTS

- Add New Post Page:
 - User enters the information of their item, category is required
 - Add Button takes the user to Post Confirmation Page
 - Cancel Button takes the user back to Seller Profile Page

POST
CONFIRMATION PAGE

HEADER

DISCLAIMER

Thank you for posting!

REVIEW

PIC

NAME

PRICE

CATEGORY

DESCRIPTION

Review email shortly... CLICK HERE to edit

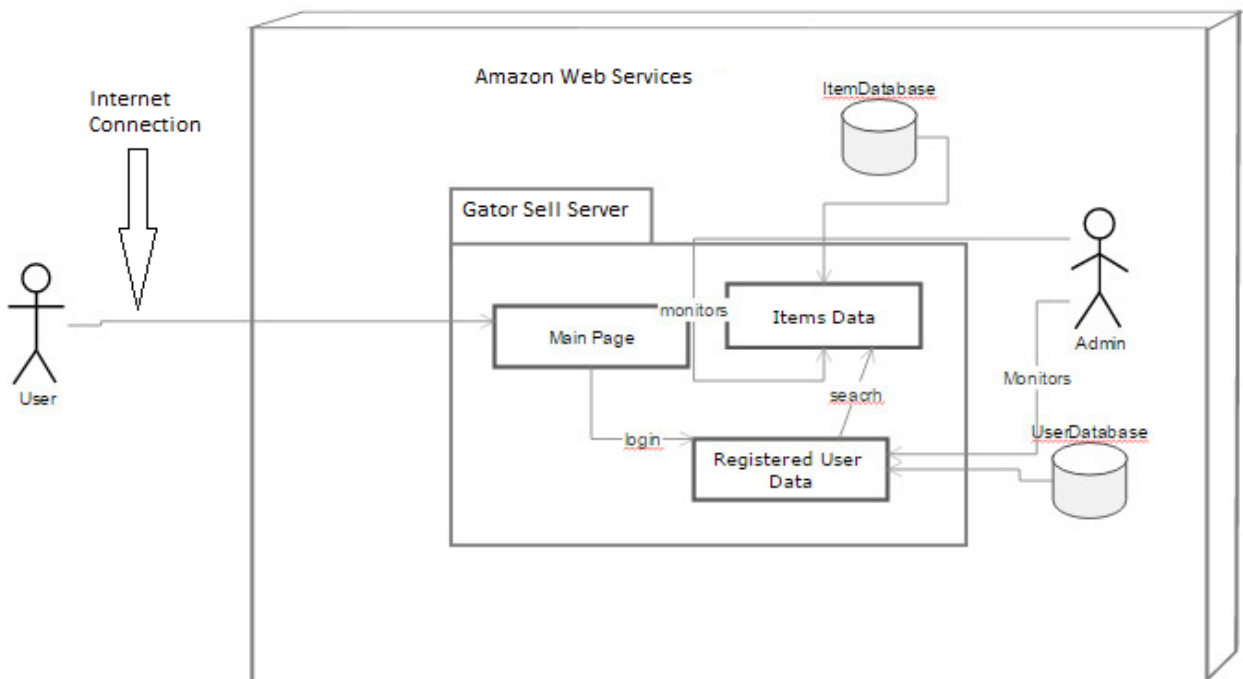
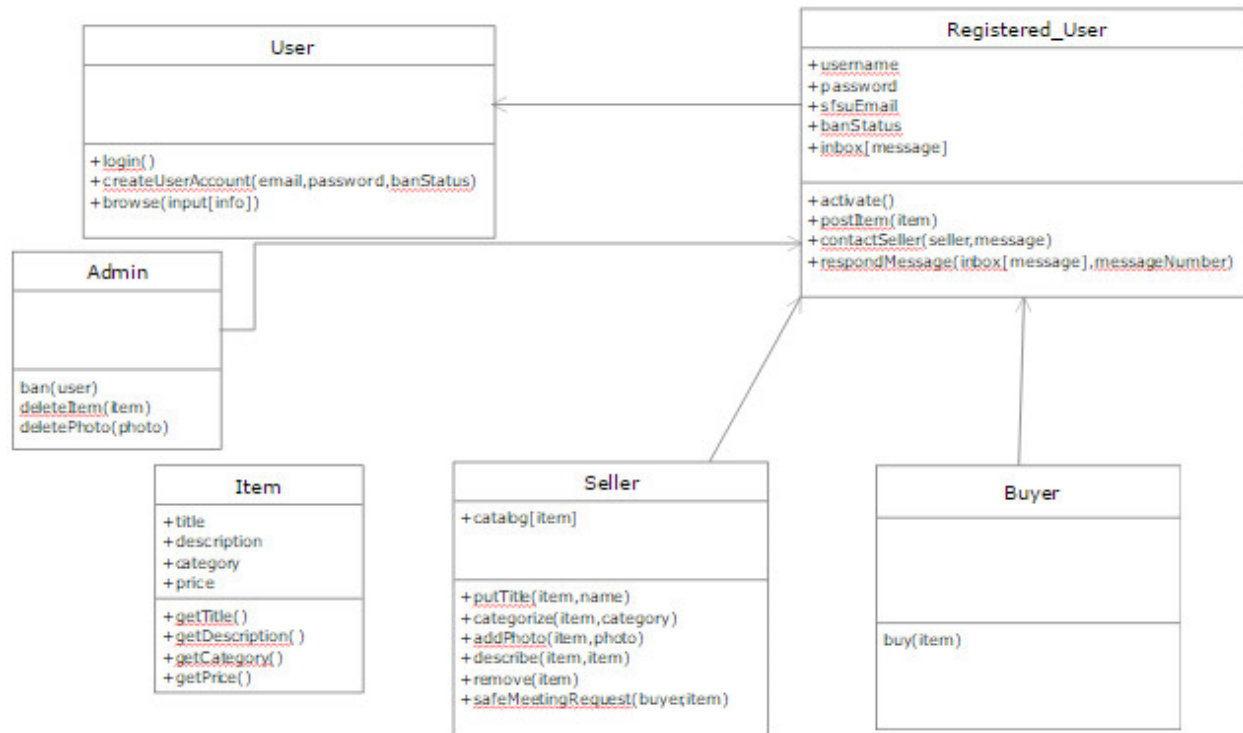
- Post Confirmation Page:
 - Contains information of posted **item** and a thank you message
 - Click Here link will take the user to their posted **item**

6. High-level System Architecture

1. Netbeans - Software development platform in Java and PHP
2. Supported Browsers: The two most recent versions
 - a. Chrome
 - b. Safari
 - c. Mozilla
3. Remote LAMP server provided by Amazon.com
 - a. Linux
 - b. Apache
 - c. MySQL
 - d. PHP
4. Bootstrap - Front-end web development
5. CodeIgniter - PHP framework
6. Google Analytics - Tracks and reports website traffic.
7. Google Maps - Location and routing planner.
8. Google Hangouts - Teamwork / Communication
9. Google Documents - Documentation collaboration
10. Payment (simulated)
11. **Registered user** database – MySQL:
 1. First Name
 2. Last Name
 3. E-mail Address
 4. ID Number
 5. Phone Number
 6. Username
 7. Password
 8. Activated
 9. Banned
12. **Item** database – **BLOBS**
 1. Item ID
 2. Item Name
 3. Price
 4. Description
 5. Category
 6. Photo:
 - a. Format type
 - b. File size
 - c. Re-sized thumbnail
13. Filter by categories:
 1. Automotive
 2. Books
 3. Clothing Shoes and Jewelry
 4. Electronics

5. Furniture
6. Household Items
7. Music
8. Movies & TV
9. Sports
10. Toys & Hobbies
11. Video Games
12. Other

7. High Level UML Diagrams



8. Key Risks

- *Skill risks*: PHP and mySQL are sources of skill risks, but is being remediated through online tutorials
- *Schedule risks*: None
- *Technical risks*: The team has never used BLOBs before, but any issues can be resolved through conducting research online and short tutorials.
- *Teamwork and legal risks*: None

9. Team Organization

Amanda Robinson - Team Lead

Ensures communication and development of project objectives and vision while communicating general concerns directly with the instructors. Providing resources, resolving any conflicts, and managing various phases of the project.

Ronald Rieger - Chief Technology Officer

Oversees all technical aspects of GatorSell.com. Trains and advises all team members in the potent use of industry standard software development tools, remote and local repository systems, mysql servers and their management software, remote communication protocols such as ssh tunneling, and the use of local system test servers for rapid code development and testing. Reviews code to ensure that it complies with company standards with regards to the model-view-controller programming paradigm, code documentation, semantic consistency across all planning documentation and code/database implementations, and system stability. Communicates with other team CTOs to facilitate and promote the ongoing progression of efficient development methodologies company wide. Implements the final deployment of each stable build to the GatorSell production server.

Priya Krishnakumar - Front End

Codes the website and web app designs using HTML, CSS, and JavaScript. Make sure when the user opens the website, they see accurate information a readable and relevant format.

Tony Filippo - Front End

Works on the datafields and class implementation of the website using PHP. This includes creating and modifying the functional specs of the website.

Rainier Hui - Back End

Verifies communication between Client and Databases. Handling calculations, business logic, database interactions, and performance.

Jason Bockover - Back End

Creates databases and modifies data for the website. Works directly with CTO to ensure that the database architecture is logical.