SW Engineering CSC 648/848 Fall 2018
Section 01

Gator Trader

Team # 02 (Local)

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"Milestone 2"

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History Table

Version	Date	Owner(s)	Description
1.0	10/19/18	Gayatri	Submitted for Review

1. Data Definitions V2

1.1 User(s) - Any person (Unregistered/ Registered/ Administrator) who uses Gator Trader is a User.

>   1.1.1 **Unregistered User:** They can only browse the website but would not be allowed to sell or buy items.

>   1.1.2 **Registered User:** Users who have registered and have an account with Gator Trader can log in, to either sell their items, check the dashboard or buy available items on the website. Registered users can be both sellers as well as buyers.

>   1.1.3 **Administrator:** An Administrator is a registered user who has special privileges. He is capable of monitoring the Gator Trader website with tasks such as removing illegal items, reviewing and approving pending items from sellers in order to be posted on the website, etc.

1.2 **Item(s)*:*** The main item(s) listed for sale by a registered seller or for purchase by a registered buyer. Item consists of Title, Item Id, Category, Price, Images(s), Status and Description about the item.

1.3 **Gator Message:** The communication medium between a buyer and a seller used for messaging in Gator Trader website. Once a buyer decides to buy an item posted on the website, he can contact the seller by sending him a message through Gator Messages. The seller can check for the messages received from buyers for his/her appropriate item.

1.4 **Category**: Category would help to sort and group item(s) into different sections. Users can browse by different categories to check for item(s) as per their need. Moreover, sellers need to select a category for posting their item(s) on sale. Category selection would be mandatory for sellers and they would not be allowed to enter his choice for category.

1.5 **User Record:** It is a record that gets created when Unregistered user registers on Gator Trader website by entering information such as User Name, Email Id, Password, etc. Once registered, this email id and password would be used for logging into Gator Trader website by individual registered users. Only registered user records are going to be present in this User Record.

1.6 **Dashboard:** An interface provided to registered users as below:

    1.6.1 Seller Dashboard: A dashboard is a place where registered users who have posted item(s) on sale on the Gator Trader website are able to view the items, status of the item such as pending or approved, view Gator Messages from buyers, change the availability of the item to sold once sold out as well as remove items due to any reason.

    1.6.2 Administrator Dashboard: It is the dashboard for the Administrator who has special privileges to approve pending items, remove illegal or inappropriate posts on the Gator Trader Website. No other Registered User other than Administrator can see the Administrator dashboard page.

2. Functional Requirements V2

2.1 Priority 1

2.1.1 **Registered User/ Unregistered User/ Administrator** shall be able to browse the Gator Trader website

2.1.2 **Unregistered users** shall not be allowed to buy or sell items

2.1.3 **Unregistered users** shall be able to create an account by using valid name, email id and password

2.1.4 **Registered users** shall be able to login into their Gator Trader account by using Email Id and Password entered at the time of account creation

2.1.5 **Registered users** shall be able to post their item(s) for sale on Gator Trader website

2.1.6 **Registered users** shall be able to check their selling item(s) on the Seller Dashboard

2.1.7 **Registered Users** who are selling item(s) shall be able to check Gator Messages on the Seller Dashboard from Registered Users interested in buying the item(s)

2.1.8 **Registered users** shall be able to buy item(s) on Gator Trader website

2.1.9 **Registered users** interested in buying an item shall be able to contact the Registered User selling that item

2.1.10 Posting an **item(s)** shall include:

      2.1.10.1 Category

      2.1.10.2 Title

      2.1.10.3 Description

      2.1.10.4 Price

2.1.11 **Administrator** shall be able to approve pending item(s).

2.1.12 **Administrator** shall be able to deny pending item(s) if found inappropriate.

2.2 Priority 2

2.2.1 **Registered User/ Unregistered User/ Administrator** shall be able to search any item as per their need on the Gator Trader website

2.2.2 **Registered User/ Unregistered User/ Administrator** shall be able to search as per Category on the Gator Trader website

2.2.3 **Registered User/ Unregistered User/ Administrator** shall be able to see search results initially organized by posted date

2.2.4 **Registered User/ Unregistered User/ Administrator** shall be able to filter search results using below options:

      2.2.4.1 By Posted Date

      2.2.4.2 By Category

      2.2.4.3 By Price

2.2.5 An **item** to be posted shall include real image(s) of products provided by the seller.

2.3 Priority 3

2.3.1 **Registered Users** who are selling their item shall be able to remove the posted item for any reason (such as no longer wishes to sell the item)

2.3.2 **Administrator** shall be able to contact Registered Users if required

2.3.3 **Registered users** shall be able to contact Administrator if required

2.3.4 **Registered Users** shall be able to mark the item as sold once sold out

3. UI Mockups and Storyboards (high level only)

3.1 UI Mockups

3.1.1 **Home Page -** This is the default home page for Gator Trader website

3.1.2 **Search Page-** This is the search page, where any user can search by entering specific name or by category.

3.1.3 **View Item Details Page -** This is our Item detail page, where the user can look up the details of the item upon clicking View Details.

3.1.4 **Post an Item Page -** This page allows a registered user to post an item on the Gator Trader website.

3.1.5 **Login Page-** This is the page for logging in with the credentials for registered users.

Gator Trader

logo

Email

Password

Forgot Password?

New to Gator Trader? Register

☑ I'm not a robot

Back

Log In

3.1.6 **Registration Page -** This is the registration page for where unregistered users can create a Gator Trader account by entering details such as username, email and password.

Gator Trader

(Logo)

Create Account

* All fields are required

Username* [ ]

Email* [ ]

Confirm Email* [ ]

Password* [ ]

Confirm Password [ ]

☐ I agree the Terms & Conditions

[Back]   Already a member? Sign In   [Create]

3.1.7 **MyDashboard Page -** This is the dashboard page for a registered user which shows all their items posted for sale along with the gator messages.

3.1.8 **Admin Dashboard Page-** This page is only displayed to administrators who has the privilege to approve or deny items posted by a registered user.

3.2 Storyboards

3.2.1 **Storyboard 1: Desperate Buyer**
Regine needs an Android device as soon as possible for completing her homework. She is a registered user on Gator Trader website, so she browses by category and finds a lot of posts selling Android devices. Then, she contacts the seller in order to buy the device.
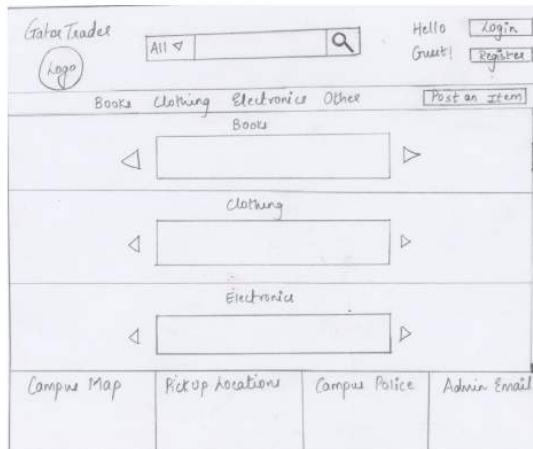
1. Home Page
User (Regine) is at the home page and clicks the "Electronics" button under the categories section in the header.
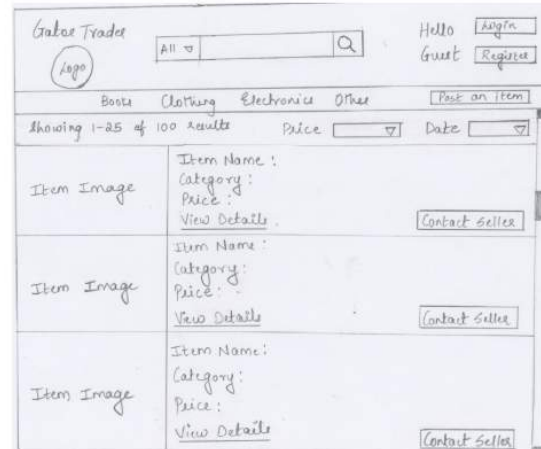
2. Search/Results Page
After clicking the "Electronics" button, she is led to the Search/Results based on category that she selected.
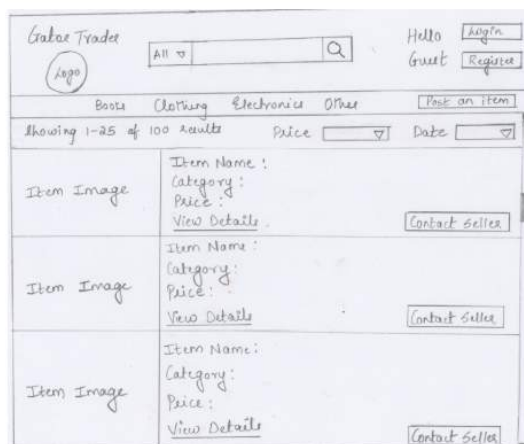
3. Search Results
While she is in Search/Results page for "Electronics", she types in "Android" to narrow down her search options. Upon finding the right choice for her, she contacts the seller in order to buy the item.

3.2.2 Storyboard 2: Casual Seller

Charul is a senior student as SFSU, graduating this semester. She wants to sell her old textbooks. She comes to know about Gator Trader website and tries to post her item for sale. Being an unregistered user, she is prompted to register. She quickly registers, enter all the item details and then posts the item for sale.

1) Charul browses on Gator Trader website and then clicks on 'post an item'


2) She is prompted to register. Then she registers by entering all the details

3) She logs in with her credentials and is directed to 'post an item' page

4) She can now enter all the details and post the item

3.2.3 Storyboard 3: Serious Seller

Gayatri is moving out of the school dorms. She is a registered user and has posted some of her items for sale on Gator Trader. She is curious to know if her items are approved. She navigates to her dashboard in order to see the status of all her items.
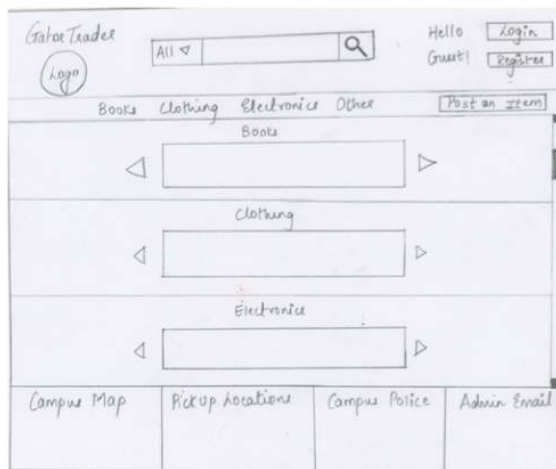
1) Gayatri opens Gator Trader website
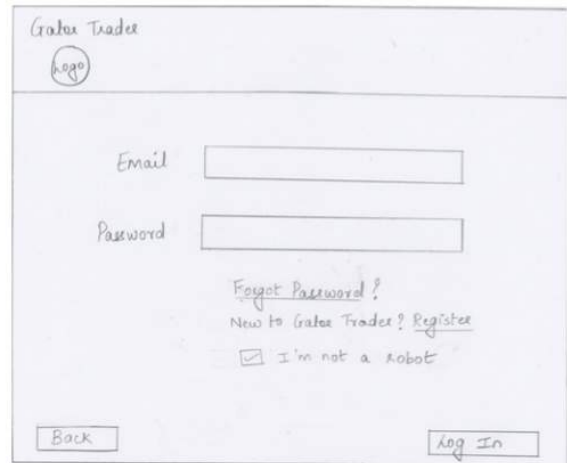
2) She logs in with her credentials

3) She then opens the dashboard in order to check the status of her posted items.

3.2.4 Storyboard 4: Careful Administrator

Dylan is a registered Administrator on the Gator Trader website. He supervises the website and has the right to approve to deny the items posted by registered users.
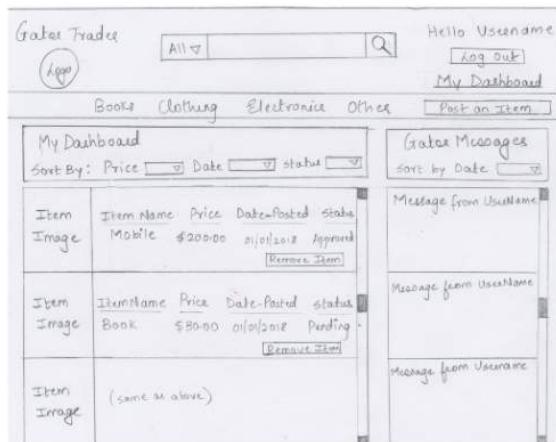

1) Dylan logs in with his credentials

2) He navigates to administrator dashboard and then has the privilege to approve or deny pending items posted for sale by registered users.

4. High Level Architecture, Database Organization

4.1. **DB organization** - The database tables will be as below: -

4.1.1 user_record - This is the user registration table when an unregistered user registers on Gator Trader. It will have following data fields.

user_id SERIAL
user_name VARCHAR(15) NOT NULL
user_password VARCHAR(20) NOT NULL
user_email VARCHAR(25) NOT NULL unique
Admin_right BOOLEAN NOT NULL
timestamp timestamp default current_timestamp
Primary Key - user_id
Foreign Key - item_id, dashboard_id, message_id

4.1.2 item - This is the item table which creates the item data when a registered user posts an item for sale. It will have the following data fields.

Item_id SERIAL
item_title VARCHAR(30) NOT NULL
item_description VARCHAR(100) NOT NULL
item_price money NOT NULL
item_image bytea NOT NULL
item_status VARCHAR(20) NOT NULL
Primary key - item_id
Foreign Key - user_id,dashboard_id, message_id

4.1.3 category - This table categorizes item. Whenever a registered user posts an item he has to select the category for an item. Category selection would be mandatory for sellers and they would not be allowed to enter his choice for category. It will have the following data fields.

category_id SERIAL
category_name VARCHAR(30) NOT NULL
Primary Key - category_id
Foreign Key - item_id

4.1.4 gator_message - This table contains the messages from registered users who are interested in buying the items posted for sale. It will have the following data fields.

message_id SERIAL
message_text VARCHAR(100)
Primary Key message_id
Foreign Key - user_id,dashboard_id, item_id

4.1.5 dashboard - This table is associated with user details. It will have the following data fields.

dashboard_id SERIAL
Primary Key dashboard_id
Foreign Key - user_id,message_id, item_id

4.2 **Media Storage** - We will use file system at present and if time permits and we gain enough knowledge during vertical prototype, we can try to use DB BLOBS. If we use a file system, then the link to the image will be stored in the database. Standard images file will be accepted. Thumbnails will be created on upload of the image.

4.3 **Search/filter architecture and implementation -** Our website will include a search box where a user can search by specific keyword or by category. The user can search by some keywords such as item name, etc. which would then display the specific listings according to the keyword using %LIKE postgres query.

5. High Level UML Diagrams

5.1 UML Diagram
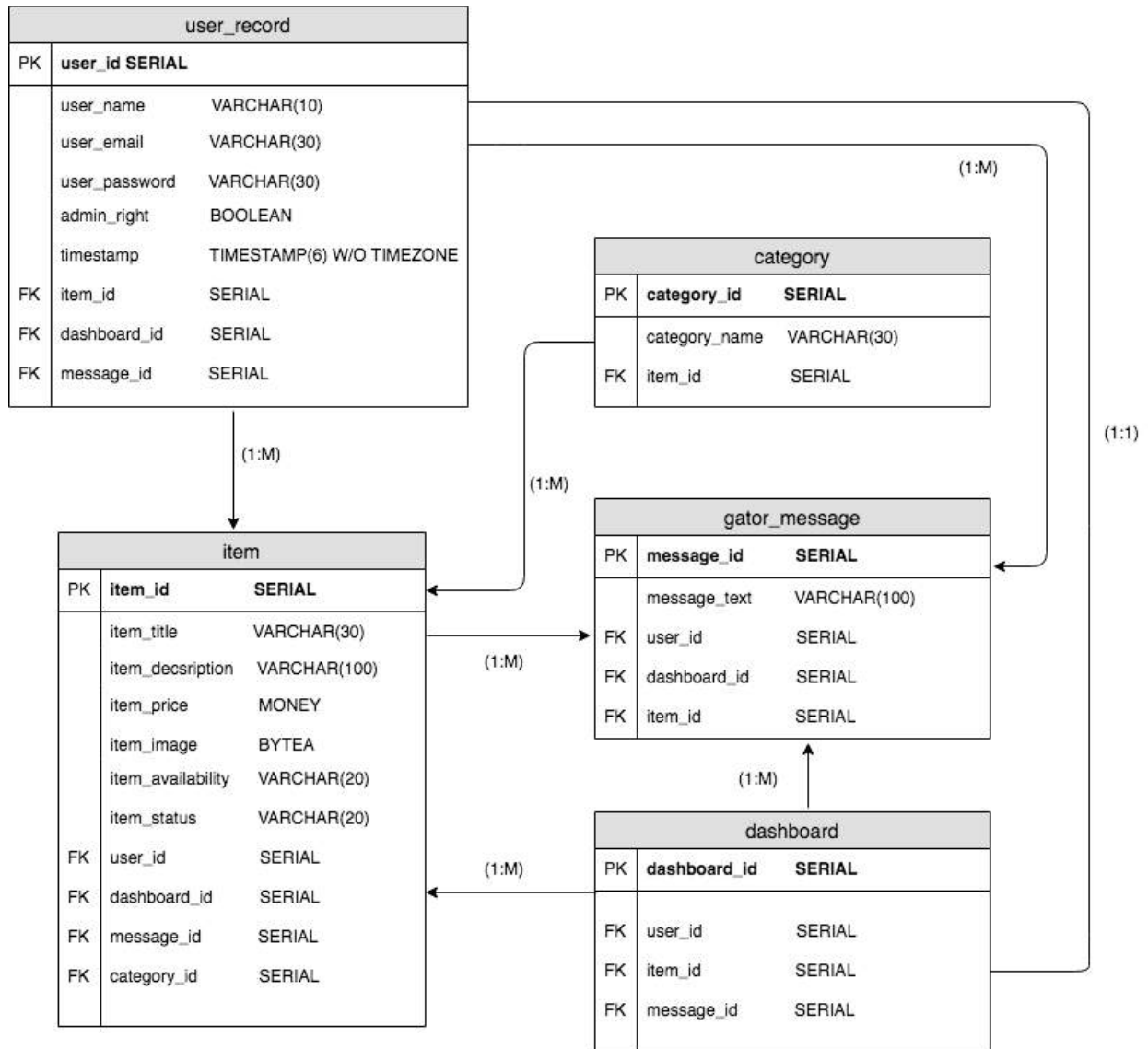
5.2 Component and Deployment Diagram
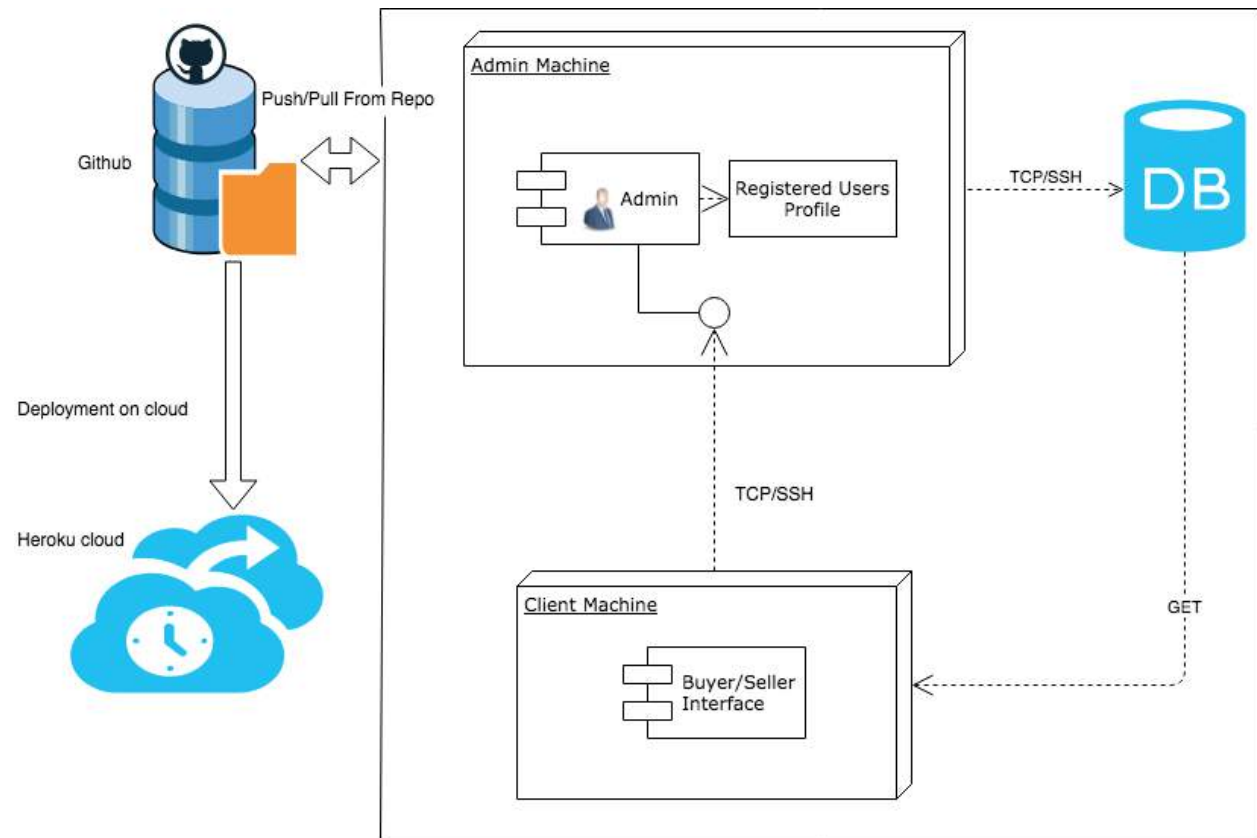
6. Identify Actual Key Risks

6.1 **Skills risks** – Our team has development experience but have rarely designed such a buying/selling website completely. Hence, this would be an interesting and challenging environment for us to work end to end.

6.2 **Schedule risks** - We have completed all the milestones till now with proper team meetings and communication between our team members. Also, our team has set a Trello account for project management with all the team members. Hence, this part should not be challenging for us.

6.3 **Technical risks** – The technical risk was associated with the git push /pull/ merge branches and the server deployment. However, we have identified a GitHub master who will handle the GitHub conflicts and also, a server master for deploying the working code remotely.

6.4 **Teamwork risks** - Our team work well together, and we have good communication between the backend and frontend team. Our team lead takes care that everyone is on the same page.

6.5 **Legal/content risks** - Legal risks may vary depending on the deployment. As we are deploying on Heroku server, we have control over what images we will host on the site. Hence, in this case we assume that there should not be any legal risks associated. However, if we assume the if the site gets deployed publicly, we can run into risks of users uploading images that aren't theirs. In this case, we would append a user agreement in the terms and conditions which would ensure that all images uploaded belong to them and any copyright material will be their responsibility. Also, the website shall prominently display the following text on all pages "SFSU-Fulda Software Engineering Project CSC 648-848, Fall 2018. For Demonstration Only" in order to avoid any conflicts later.