

# Rentto.me Web Application

Software Engineering CSC648-848 Section 4

## **Section 4 Team 6**

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## **Milestone 2**

March 18, 2022

Revisions	Date
Version 1	

# Table of Contents

<b>Section 1: Data Definitions V2</b>	<b>2</b>
<b>Section 2: Function Requirements V2</b>	<b>4</b>
<b>Section 3: UI Mockups and Storyboards</b>	<b>9</b>
<b>Section 4: High Level Architecture, Database Organization</b>	<b>37</b>
<b>Section 5: High Level UML Diagrams</b>	<b>40</b>
<b>Section 6: Key Risks</b>	<b>43</b>
<b>Section 7: Project Management</b>	<b>44</b>

# Section 1: Data Definitions V2

## 1. User

- a. Guest User
- b. Registered User

## 2. User Account

- a. Email
- b. Password
- c. Address
- d.

## 3. Profile

- a. Full name
- b. Pronouns
- c. Phone Number
- d. Picture

## 4. Transactions

- a. Item number
- b. Lender
- c. Renter
- d. Price

## 5. Rental History

- a. Rental period
- b. Rented Item
- c. Rental Cost
- d. Lender User

## 6. Rental Cart

- a. Rental Item
- b. Rental Period
- c. Rental Cost
- d. Lender User

## 7. Rental Post

- a. Item Name
- b. Picture
- c. Category/Activity
- d. Description
- e. Rental Cost
- f. Rental period
- g. Rental Request (optional)

## **8. Review System**

- a. Author of the Review
- b. Time posted
- c. Text review
- d. Rental Item
- e. Lender
- f. Renter

## **9. Message Chat**

- a. Lender
- b. Renter
- c. Item
- d. Message Strings

## Section 2: Function Requirements V2

**Requirement ID:** 1

**Title:** User Creates Account

**Owner:** Jonathan Tsegaye

**Priority:** 1

**User Story Reference:** All

**Description:**

The new user must enter their email, password, name, address, & phone number.

**Requirement ID:** 2

**Title:** User Creates Rental Post

**Owner:** Jonathan Tsegaye

**Priority:** 1

**User Story Reference:** W1

**Description:**

The user must login into their account, once successful, they can select to create a new rental post. The rental post must consist of a title, description, item type, price, rental period(s), exchange type, and any other information necessary.

**Requirement ID:** 3

**Title:** User Sends Rental Request

**Owner:** Jonathan Tsegaye

**Priority:** 3

**User Story Reference:** V2

**Description:**

The rent request is optionally placed by the lender on the rental post, and once the lender receives the request, they can accept for exchange or deny the request.

**Requirement ID: 4****Title:** User Checkouts Selected Items**Owner:** Jonathan Tsegaye**Priority:** 1**User Story Reference:** ALL**Description:**

The user can checkout their rental cart and fill out the required information (i.e address, name, card information), and proceed with the transaction.

**Requirement ID: 5****Title:** Lender Leaves Condition Review**Owner:** Jonathan Tsegaye**Priority:** 5**User Story Reference:** A1**Description:**

Lenders can leave a review of the condition their tool/item was returned in by selecting from a scale of Bad-Perfect. Lenders can optionally add detailed 1-10 scaled reviews on cleanliness, physical condition, or missing component, and a text field. Renters are able to see reviews on Lender.

**Requirement ID: 6****Title:** Lender Sends Item Through Postage**Owner:** Vanessa Van Dinh**Priority:** 2**User Story Reference:** J1**Description:**

After a renter selects an item and checks out to rent, the lender can start packaging the item with appropriate and necessary postal packaging (assuming that the lender did not select local exchange), and then drop it off at a nearby postal office. Shipment fees can be by the lender or by the renter.

**Requirement ID: 7****Title:** Lender Can Exchange Locally**Owner:** Vanessa Van Dinh**Priority:** 2**User Story Reference:** J1**Description:**

After a registered renter selects an item and checks out to rent, assuming that shipment is not available and only local pickup, the lender and renter can exchange the item at a chosen destination or a safe destination given by Rentto.me. Once the item has been exchanged, the lender must select that it has been picked up and the rental period shall start.

**Requirement ID: 9****Title:** Message Chat**Owner:** Vanessa Van Dinh**Priority:** 4**User Story Reference:** ALL**Description:**

Lenders and renters can message each other for more information about the said item.

**Requirement ID: 10****Title:** Renter Review**Owner:** Vanessa Van Dinh**Priority:** 3**User Story Reference:** C1**Description:**

After the renter has returned the item by local exchange, completed the shipment, and fully completed the transaction, the renter can leave a review for the lender about the item, the lender, etc.

**Requirement ID: 11****Title:** Test Drive Purchasable Item

**Owner:** Jonathon

**Priority:** 3

**User Story Reference:** JT1

**Description:**

If the renter really likes the item, then they can purchase through the site to fully purchase it from the lender, that is, if the lender has selected it to be available for purchase, and has set up a purchase price for the said item in the rental post. The current total of the rental period will be subtracted from the purchasing price.

**Requirement ID:** 12

**Title:** Lender's Compare Rates

**Owner:** Vanessa Van Dinh

**Priority:** 5

**User Story Reference:** V2

**Description:**

A user looking at a rental post may be able to see and select the prices and total prices for multiple rental periods that the lender has set up for the said item. Example can be \$20 total for 4 days ( \$5/per day).

**Requirement ID:** 13

**Title:** Users Can Login/Logout

**Owner:** Vanessa Van Dinh

**Priority:** 1

**User Story Reference:** ALL

**Description:**

Once the user has registered for an account, the user can now login and logout of their account through the login page. The user must enter their email they registered with, and their password. If the login fails, they may request for a password change.

**Requirement ID:** 14

**Title:** Users Rental Cart

**Owner:** Alan Lo

**Priority:** 1

**User Story Reference:** V2, A1, C1, JT1, V1

**Description:**

If the user wants to rent out multiple items from different lenders, they can select the said items into a rental cart. Once they checkout, they will see the total price, prices of each item along with the exchange type, and rental period. They will be sent a confirmation notification.

**Requirement ID:** 15

**Title:** Forgotten Username/Password

**Owner:** Alan Lo

**Priority:** 3

**User Story Reference:** ALL

**Description:**

If the user tries to login into their account through the login page and fails, the user can select to request a password change.

**Requirement ID:** 16

**Title:** Lender Rejects/Accepts Rental Request

**Priority:** 4

**User Story Reference:**

**Description:**

Once the lender has received the rental request from the user, the lender can deny or accept the request, the transaction will go through if denied. If accepted, the transaction will proceed.

## Section 3: UI Mockups and Storyboards

### Functional Requirement #1 Mockup

The mockup shows the Rentto.me homepage with a dark header containing the URL "www.rentto.me". Below the header is a light blue main area featuring the "Rentto.me" logo in large yellow letters. A search bar with placeholder text "I am looking for..." and a magnifying glass icon is positioned below the logo. To the right of the search bar is a "Category" dropdown menu. In the top right corner of the main area, there is a "Sign in" button with a shopping cart icon and a "Sign up" button. A black arrow points from the text "Functional Requirement #1 Mockup" to the "Sign up" button. Below the search bar, a callout box highlights a listing for a "Hammer for rent! Shipping Only!". The listing includes a photograph of a claw hammer and two nails on a wooden surface. To the right of the photo, the listing details are shown: "Rental price: \$2/day", "Shipping: Free standard US only", "Deposit fee: \$5", and "Ships from: San Jose, CA". A blue shopping cart icon is located next to the listing details. Below the listing, a truncated description reads: "Description: ABCDEFGHIJK...".

# Rentto.me

First Name... MI... Last Name...

Email Address...

Password...

Address City Zip Code State

Phone Number

Sign Up Now!

www.rentto.me

Annie A. 

[Log Out](#)

# Rentto.me

Search: I am looking for...  Category 

Hammer for rent! Shipping Only!



Rental price: \$2/day  
Shipping: Free standard US only  
Deposit fee: \$5  
Ships from: San Jose, CA 

Description:  
ABCDEFGHIJK...

## Function Requirement #2 Mockup

The mockup shows a web browser window for 'www.rentto.me'. At the top right, there is a blue shopping cart icon, a 'Sign in' link, and a 'Sign up' link. A black arrow points from the text 'Function Requirement #2 Mockup' to the shopping cart icon. The main header features the 'Rentto.me' logo in large yellow letters. Below the header is a search bar with placeholder text 'I am looking for...' and a magnifying glass icon. To the right of the search bar is a 'Category' dropdown menu with a downward arrow icon. On the left, a callout box contains the text 'Hammer for rent! Shipping Only!' above a photograph of a hammer and two nails on a wooden surface. On the right, another callout box contains rental details: 'Rental price: \$2/day', 'Shipping: Free standard US only', 'Deposit fee: \$5', and 'Ships from: San Jose, CA'. Below these details is a 'Description:' section with the text 'ABCDEFGHIJK...'. A blue shopping cart icon is also present in the top right corner of this box.

www.rentto.me

Sign in Sign up

# Rentto.me

Search: I am looking for... Category

Hammer for rent! Shipping Only!



Rental price: \$2/day  
Shipping: Free standard US only  
Deposit fee: \$5  
Ships from: San Jose, CA

Description:  
ABCDEFGHIJK...



www.rentto.me

 +  [Becky B.](#) 

# Rentto.me

[Log Out](#)

Search: I am looking for...  Category 

Hammer for rent! Shipping Only!



Rental price: \$2/day  
Shipping: Free standard US only  
Deposit fee: \$5  
Ships from: San Jose, CA 

Description:  
ABCDEFGHIJK...

www.rentto.me

Rentto.me Search: I am looking for... Category  +  Becky B.  1

Add Title...

Add Pictures

Rental price/day:

Deposit Fee:

Category:

Exchange Type:

Rental Request:

Description:

 POST

www.rentto.me

Becky B. 

[Log Out](#)

# Rentto.me

Search: I am looking for...  Category 

Hammer for rent! Shipping Only!



Rental price: \$2/day  
Shipping: Free standard US only  
Deposit fee: \$5  
Ships from: San Jose, CA 

Description:  
ABCDEFGHIJK...

www.rentto.me

Becky B.

**Rentto.m**

Search: I am looking for...

Post Board

Reviews

Purchase History

View History

Messages

Settings

Hammer for rent! Shipping Only!



Rental price: \$2/day  
Shipping: Free standard US only  
Deposit fee: \$5  
Ships from: San Jose, CA

Description:  
ABCDEFGHIJK...

www.rentto.me

# Rentto.me

Search: I am looking for...  Category    Becky B. 



## Becky Benson

Ships from San Jose, CA

Renting out things I have never used and don't need. DM me if you have any questions!

Search... 

All	3
Cutlery	3
Full Sets	2



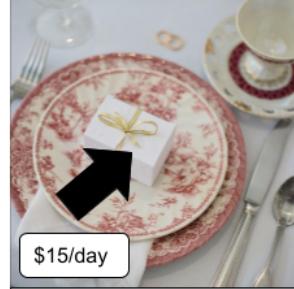
\$2/day

New Unused Wood Cutting Board!



\$4/day

Antique Vintage Tea Set



\$15/day

New Unused Wedding Plate Set!





New Unused Wedding Plate Set!



Rental price: \$15/day

Shipping: Free standard US only

Deposit fee: \$30

Ships from: San Jose, CA



Description:

Brand new and unused decorative wedding plate set. Can be for any occasion!

- Beautiful red homestead detailing
- Each plate set includes paired cutlery set of 1 spoon, 1 knife, and 1 fork
- Tea cup set not included
- Returning condition must be clean and packaged well due to fragility

Functional Requirement #4 Mockup

The image shows a screenshot of the Rentto.me website. At the top, there is a navigation bar with the URL "www.rentto.me", a shopping cart icon, the user name "Becky B.", and a "Log Out" link. Below the navigation bar is the main header "Rentto.me". A search bar contains the placeholder text "I am looking for...". To the right of the search bar are a magnifying glass icon and a "Category" dropdown menu. In the center of the page is a listing for a hammer. The listing includes the text "Hammer for rent! Shipping Only!", a photograph of a hammer and two nails on a wooden surface, and detailed rental information: "Rental price: \$3/day", "Shipping: Free standard US only", "Deposit fee: \$3", and "Ships from: San Jose, CA". To the right of this information is a yellow "Buy Now" button with a blue shopping cart icon. A large black arrow points to the shopping cart icon on the "Buy Now" button. Below the listing, the text "Description: ABCDEFGHIJK..." is visible.

www.rentto.me

Becky B.  [Log Out](#)

# Rentto.me

Search: I am looking for...  Category 

Hammer for rent! Shipping Only!



Rental price: \$3/day  
Shipping: Free standard US only  
Deposit fee: \$3  
Ships from: San Jose, CA 

Description:  
ABCDEFGHIJK...

www.rentto.me

# Rentto.me

Search: I am looking for...  Category 



Item: Hammer Rental price: \$3/day Shipping: Free standard US only Deposit fee: \$3 Ships from: San Jose, CA	Rental Period: MM/DD/YYYY - MM/DD/YYYY
Rental Days: N/A Shipping: Free	



Item: Hammer Rental price: \$3/day Shipping: Free standard US only Deposit fee: \$3 Ships from: San Jose, CA	Rental Period: MM/DD/YYYY - MM/DD/YYYY
Rental Days: N/A Shipping: Free	

Rental Fee: Shipping Fee:	N/A Free
Total :	\$18

**Proceed To Checkout**

www.rentto.me

# Rentto.me

Search: I am looking for...  Category 

Becky B.  1 



Item: Hammer  
Rental price: \$3/day  
Shipping: Free standard US only  
Deposit fee: \$3  
Ships from: San Jose, CA

Rental Period:  
03/17/2022 - 03/20/2022

Rental Days: 3 Days \* \$3/Day = \$9  
Shipping: Free



Item: Hammer  
Rental price: \$3/day  
Shipping: Free standard US only  
Deposit fee: \$3  
Ships from: San Jose, CA

Rental Period:  
03/17/2022 - 03/20/2022

Rental Days: 3 Days \* \$3/Day = \$9  
Shipping: Free

Rental Fee: \$18  
Shipping Fee: Free

Total : \$18

**Proceed To Checkout**



www.rentto.me

Rentto.me Search: I am looking for...  Category 

Becky B. 

## Shipping Payment | Place Order

First Name :  Last Name:

Country/Region :

Street Address :  Street Address  Apartment, suite, unit etc. (optional)

State/Province/Region :

City/Department :

Zip/Postal Code :

Mobile :  +1   
Country Code - Mobile Number



www.rentto.me

Rentto.me Search: I am looking for... Category 

Becky B.  1 

Shipping Payment Place Order

Card number:

Name on card:

Expiration date:  /

Card verification code:

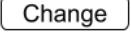
www.rentto.me

Rentto.me Search: I am looking for... Category  

Becky B.  

Shipping | Payment | Place Order

---

**1. Shipping** First Name Last Name  
Shipping Address 

**2. Payment** Card Ending in : #####  
Billing Address: Address 

**3. Review** 1x Hammer 03/17/2022 - 03/20/2022  
1x Hammer 03/17/2022 - 03/20/2022 

**4. Order Summary**  
Items(2) : \$18.00  
Shipping & Handling : Free  
Order total: \$18.00  



www.rentto.me

Rentto.me Search: I am looking for...  Becky B. 

Thank you for your purchase!



Information :

---

Order Number : 123456789

Arriving : 3/17/2022      Shipped to :  
Name  
Address

---

Your package is being shipped by \_\_\_\_\_ and your tracking number is 123456789.

## Functional Requirement #13 Mockup

The mockup shows a web browser window for the website www.rentto.me. At the top right, there is a shopping cart icon, a "Sign in" button, and a "Sign up" button. A black arrow points from the text "Functional Requirement #13 Mockup" to the "Sign up" button. The main header features the "Rentto.me" logo in large yellow letters. Below the header is a search bar with the placeholder "I am looking for..." and a magnifying glass icon. To the right of the search bar is a "Category" dropdown menu with a downward arrow. On the left side of the page, there is a callout box with the text "Hammer for rent! Shipping Only!" above a photograph of a hammer and two nails on a wooden surface. To the right of the hammer image is another callout box containing product details: "Rental price: \$2/day", "Shipping: Free standard US only", "Deposit fee: \$5", and "Ships from: San Jose, CA". Below these details is a "Description" section with the text "ABCDEFGHIJK...".

www.rentto.me

Sign in Sign up

# Rentto.me

Search: I am looking for... Category

Hammer for rent! Shipping Only!



Rental price: \$2/day  
Shipping: Free standard US only  
Deposit fee: \$5  
Ships from: San Jose, CA

Description:  
ABCDEFGHIJK...



www.rentto.me

Sign in  Sign up 

# Rentto.me

Search: I am looking for...  Category 

Hammer for rent! Shipping Only!



Rental price: \$2/day  
Shipping: Free standard US only  
Deposit fee: \$5  
Ships from: San Jose, CA 

Description:  
ABCDEFGHIJK...



www.rentto.me

+  Test T. 

# Rentto.me

Search: I am looking for...  Category 

**Hammer for rent! Shipping Only!**



Rental price: \$2/day  
Shipping: Free standard US only  
Deposit fee: \$5  
Ships from: San Jose, CA 

Description:  
ABCDEFGHIJK...

www.rentto.me

Sign in Sign up

# Rentto.me

Search: I am looking for...  Category

Hammer for rent! Shipping Only!



Rental price: \$2/day  
Shipping: Free standard US only  
Deposit fee: \$5  
Ships from: San Jose, CA

Description:  
ABCDEFGHIJK...

## Functional Requirement #14 Mockup

The mockup shows a web browser window for 'www.rentto.me'. The header includes a search bar with 'www.rentto.me', a user profile for 'Becky B.', and a 'Log Out' link. The main title 'Rentto.me' is displayed in large yellow letters. Below it is a search bar with 'Search: I am looking for...' and a magnifying glass icon. To the right of the search bar is a 'Category' dropdown menu.

A product listing for a hammer is shown. The listing includes:

- Hammer for rent! Shipping Only!**
- 
- Rental price:** \$3/day
- Shipping:** Free standard US only
- Deposit fee:** \$3
- Ships from:** San Jose, CA
- Buy Now** button (with a blue arrow pointing to it)
- Description:** ABCDEFGHIJK...

www.rentto.me

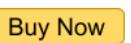
Becky B.  [Log Out](#)

# Rentto.me

Search: I am looking for...  Category 

Hammer for rent! Shipping Only!



Rental price: \$3/day  
Shipping: Free standard US only  
Deposit fee: \$3  
Ships from: San Jose, CA 

Description:  
ABCDEFGHIJK...

www.rentto.me

# Rentto.me

Search: I am looking for...  Category 



Item: Hammer Rental price: \$3/day Shipping: Free standard US only Deposit fee: \$3 Ships from: San Jose, CA	Rental Period: MM/DD/YYYY - MM/DD/YYYY
Rental Days: N/A Shipping: Free	



Item: Hammer Rental price: \$3/day Shipping: Free standard US only Deposit fee: \$3 Ships from: San Jose, CA	Rental Period: MM/DD/YYYY - MM/DD/YYYY
Rental Days: N/A Shipping: Free	

Rental Fee: Shipping Fee:	N/A Free
Total :	\$18



\*UI mockups are subject to change

## Section 4: High Level Architecture, Database Organization

### Database Tables

#### **Users (Allow insertion)**

- userID
- username
- userEmail
- userPassword
- cartID
- activeFlag

#### **Posts (Allow insertion/search)**

- postID
- postText
- itemDescription
- postImage
- transactionID (initially null)
- activeFlag
- postUserID

#### **Reviews (Allow insertion/deletion)**

- reviewID
- reviewText
- authorID
- revieweeID
- reviewType
- transactionID
- activeFlag

#### **Transactions (Allow insertion/search)**

- transactionID
- itemDescription
- lenderID

- renterID
- transactionBegin
- transactionEnd
- cost

### **Cart (Allow insertion/deletion)**

- cartID
- userID
- postID

### **Database Operations:**

Users table is added to whenever a new user registers on the website. If a user decides to delete their account, we flag the account as not active

Posts table is added whenever a user creates a new rental post. The transaction ID column is left null until a renter is found to complete the transaction. Then the transaction ID column in the Posts table is updated. Users can search for posts which will bring up relevant posts based on keywords from the Posts table.

Reviews table is added to whenever a renter or lender writes a review for a relevant transaction they have been a part of. The transaction ID is noted in the Reviews table. Reviews can be deleted by users for any reason from the front end, but

Transactions table is added to whenever a transaction is completed between a renter and lender. All relevant payment info is updated.

Cart table is updated whenever a user adds an item to their cart, and links items to the user. If a user removes an item from their cart, we delete the entry from the Cart table.

### **APIs**

#### **Routes**

- Users.js
- Posts.js
- Home.js
- Transactions.js

#### **Model**

- Users.js
- Posts.js

Transactions.js

Reviews.js

Cart.js

## **View**

Home.css

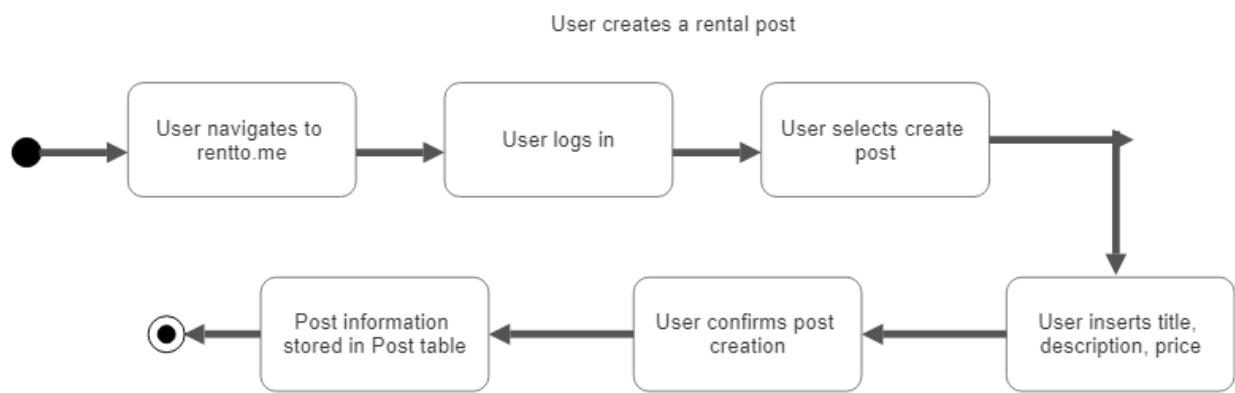
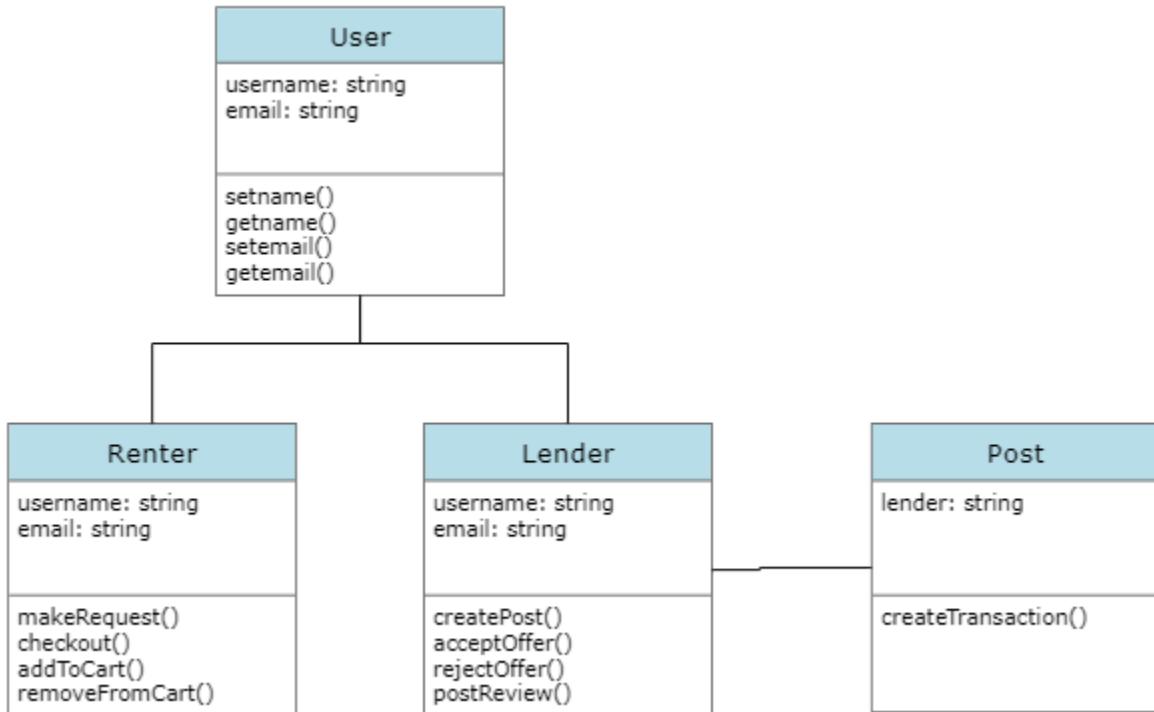
Registration.js

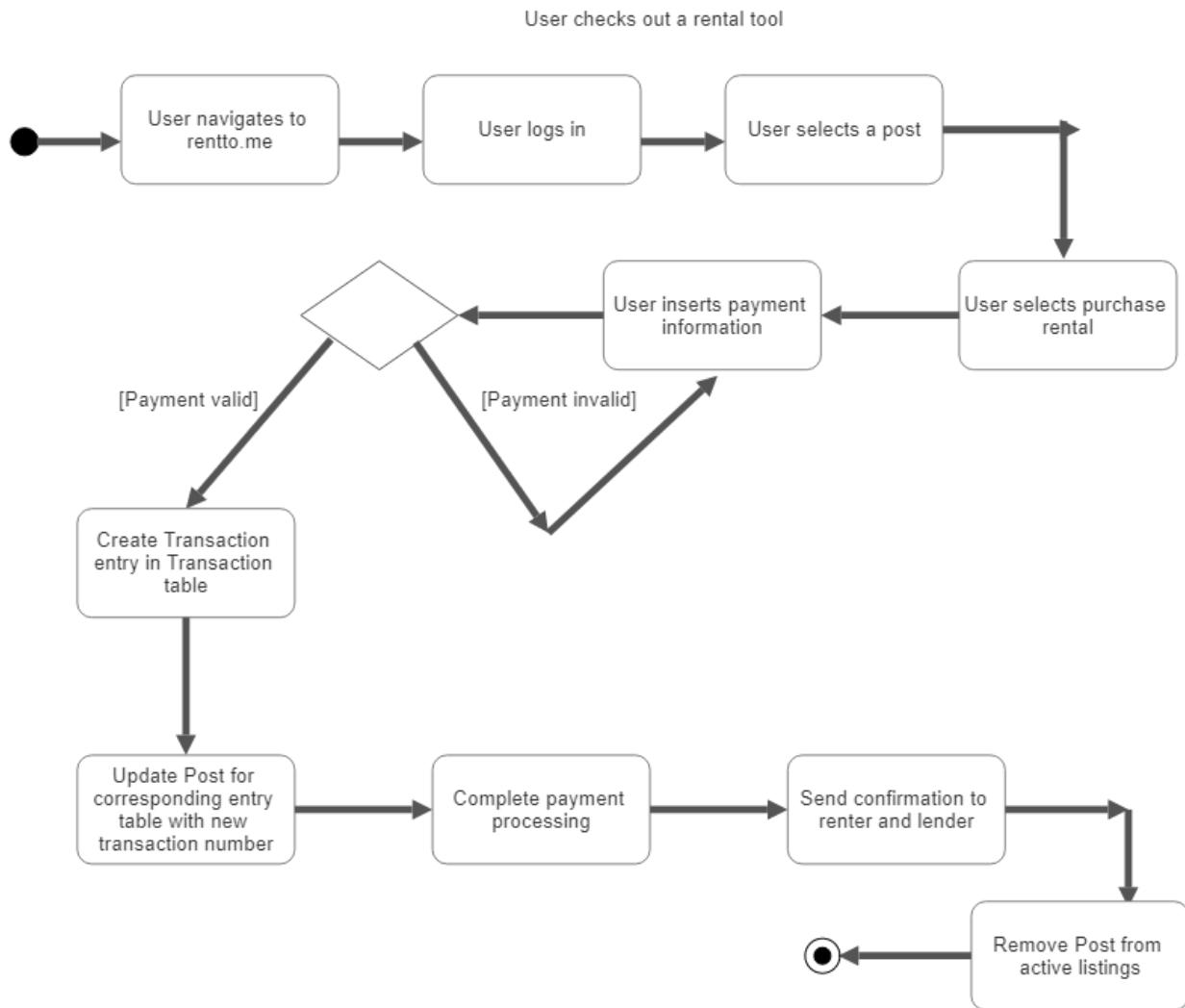
Login.js

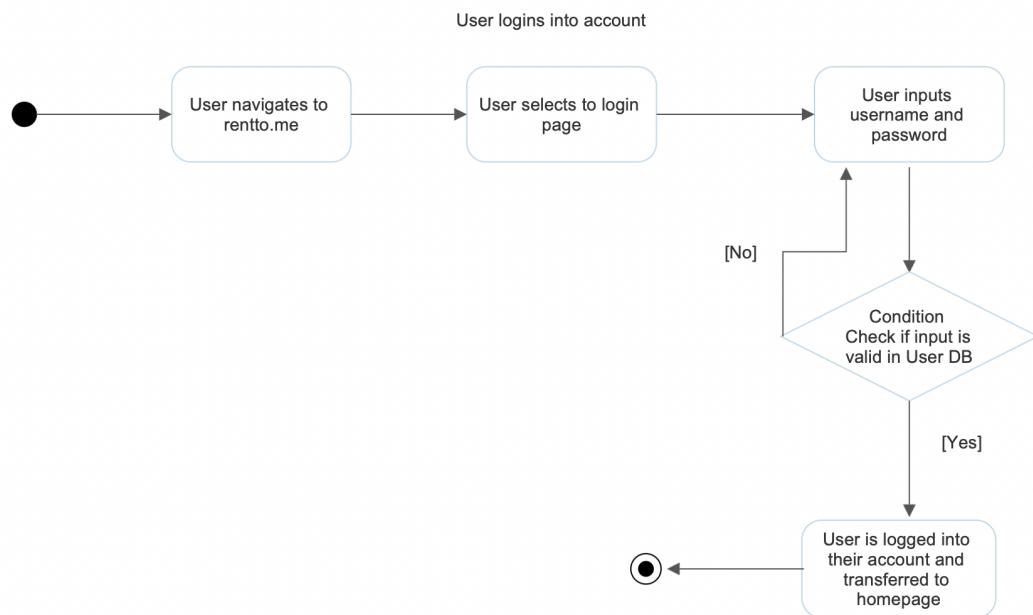
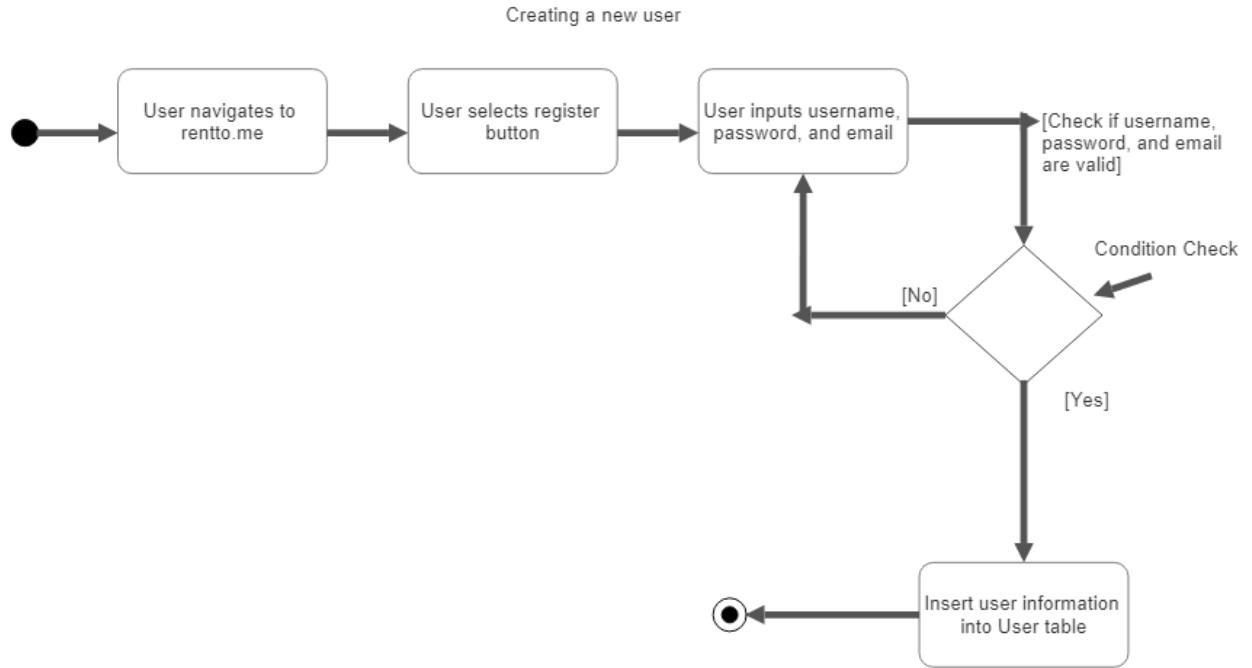
CreatePost.js

Post.js

## Section 5: High Level UML Diagrams







# Section 6: Key Risks

- *schedule* risks
  - Team 06 has a study plan that we have been following in terms of studying and research.
- *skills* risks and mitigation plan
  - Scheduled learning of a 17 part video series
  - Meetings every two days
    - Check progress on study plan
    - Complete milestone work as a group
    - Share individual work done on current milestone
    - Assign new milestone tasks
    - Plan next meeting
- *teamwork* risks (any issues related to teamwork)
  - Balancing studying with other classes
    - We help each other catch up on study plan material whenever somebody falls behind
  - Missing meetings
    - Using discord @ notifications to ping people is VERY effective with reminding people
- *legal/content* risks
  - Legal risks may include copyrighted images
    - Implement report feature
  - Illicit items may be exchanged on the website
    - Implement report feature

## Resolution:

- Schedule risks
  - Our team has solidified a study plan that includes outside research, frequent team discussions and collaboration. We help each other to have a better understanding of our project.
- Skills risks and mitigation plan
  - We have a team schedule that members are assigned to and are given due dates to finish sub tasks on time. Other members are also subjected to assistance.
- Teamwork risks
  - Our team meets frequently to discuss project tasks, ask questions, and help each other better under our project. In addition, those that are on track or ahead of studying will assist those that are behind the studying pace.
- legal/content risks
  - Our team will review and ensure that the content we are using is of fair use.

## Section 7: Project Management

The members of Team 6 have been working closely together on tasks with given deadlines. Progress is shared during the frequent team meetings and questions or issues are clarified during these times. In addition, other team members may also assist on tasks in order to finish on time and provide support to further progress the project. Progress is transparently shared on Discord and screen sharing. On top of our study plan in which members will research and learn more about our stack technologies, before each team meeting ends, the team leader and the team collectively agree on insights of what to expect for the next team meeting and what should be done by the next meeting. The team leader goes through the current progress and checkpoints of the project, before the meeting, in order to set up expectations and tasks to be done for the upcoming meeting. If there are any issues, requests for assistance, or anything else, members are encouraged and supported to speak in the Discord chat.