

# Lendr

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# Test Plan

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# 1 Frontend Tests Introduction

Using the Jest framework, we can test React-Redux front end calls. This can be made possible since React-redux use reducer-action patterns.

**Actions:** Activities generated by the user. This includes any front-end calls such as clicks, selects, and any key-strokes. This isolates all user inputs into one class of actions that allow us to unit-test user input and supply user input as “mocked user input”.

**Test procedure:** Redux actions have the following signature:

*func action(userInput) { ... }*

**Reducers:** Reducers are any mappings of *actions*  $\rightarrow$  (*action*, *previousState*). They take certain user ‘actions’ and map them to a new changed state.

The signature of a reducer is:

*func reducer(action, state) { ... }*

Since both, actions and reducers, are pure JS functions, they can be tested using 'mocked' user inputs provided as arguments in Jest functions.

## 2 Use Cases Test Plan

1	As a first-time user, I would like to be able to sign up.	A. Lend 001, Sign Up, Severity 1 B. Instructions: Click 'Sign-up' for new user C. Expected Result: Transfer new user credentials to backend store of secure user-info
2	As a user, I would like to be able to login.	A. Lend 002, Log In, Severity 2 B. Instructions: Click 'Login' for current user in 'Google Authenticator' C. Expected Result: Verify current users' information with 'Google Authenticator' saved credentials
3	As a user, I would like to be able to search for items I have interest in.	A. Lend 003, Searching items, Severity 2 B. Instructions: Provide 'search criteria'/input that would allow narrowing down of items C. Expected Result: Transfer 'search criteria' to 'user input reducer'. The reducer sends the information to search API and returns new 'item-list' after filtering results as per 'search criteria'
4	As a user, I would like to post items that I am trying to sell.	A. Lend 004, Posting items, Severity 2 B. Instructions: Fill form - item_info: {item_name, item_price, item_lend_duration etc.} C. Expected results: Add item_info from front-end input-fields to back-end store
5	As a user, I want to login using	A. This the same as 2.

	my Google credentials.	
6	As a user, I would like to post pictures of items.	<p>A. Lend 006, Uploading pictures, Severity 3</p> <p>B. Instructions: Submit item assets {pictures etc.} via ‘Add image’ button/selector</p> <p>C. Expected Results: Save image as url/raw in back-end</p>
7	As a user, I would like to post a description of the items that I have posted.	<p>A. Lend 007, Posting description, Severity 3</p> <p>B. Instructions: Submit item_description via input field</p> <p>C. Expected Results: Add ‘description string’ to back-end database</p>
8	As a user, I would like to post a location for pick up of my items.	<p>A. Lend 008, Posting Location, Severity 3</p> <p>B. Instructions: Supply item location/pick-up location</p> <p>C. Expected Results: Save item_location and update lender’s item_return_location</p>
9	As a user, I want to set the price for my items.	<p>A. Lend 009, Setting price of item, Severity 2</p> <p>B. Instructions: Set price for lent item via numerical input field</p> <p>C. Expected Results: Add set price to ‘Due_price’ of lender</p>
10	As a user, I want to be able to update the all item information.	<p>A. Lend 010, Update information, Severity 1</p> <p>B. Instructions: Updated item information in the frontend sends all the information to the backend to save the information.</p> <p>C. Expected Results: The updated item information can be seen by the user when he/she restarts the Web App.</p>

11	As a user, I would like to post items that I want to lend.	<p><b>Test 1 (Lender):</b></p> <p>A. Lend 011, Posting item to lend, Severity 1</p> <p>B. Instructions: User classifies the item he/she uploaded as a lendable item</p> <p>C. Expected Result: Item classification turns to lendable item (Item shows up as a lendable item (as compared to item that another users can buy))</p> <p><b>Test 2 (User (not a lender)):</b></p> <p>A. Lend 012, Item classification, Severity 1</p> <p>B. Instructions: User can easily differentiate between the items to buy and items to lend</p> <p>C. Expected Result: When another user is looking for the item, the item is classified correctly so that it shows up as lend or buy</p>
12	As a user, I would like post price per unit and duration of lending.	<p><b>Test 1 (Lender):</b></p> <p>A. Lend 013, Post duration for lending, Severity 1</p> <p>B. Instructions: If the user classifies his/her item as a lendable item (not a selling item)</p> <p>C. Expected Result: User can see an option to specify the duration of lending (two days / weekly / bi-weekly / monthly)</p> <p><b>Test 2 (User (not a lender)):</b></p> <p>A. Lend 014, Correct duration for lending, Severity 1</p> <p>B. Instructions: Users can look at the item he/she wants to lend</p> <p>C. Expected Result: User can clearly look at the rent duration (two days / weekly / bi-weekly / monthly)</p>

13	As a user, I want to purchase items that are listed.	<p><b>Test 1 (Lender):</b></p> <p>A. Lend 015, Payment Notification, Severity 2 Instructions: User who posted the item to be sold is notified that another user has paid for purchase of the item.</p> <p>B. Expected Result: The seller gets a notification about the user who bought the item from the lender and instructions on how to send the item to the buyer.</p> <p><b>Test 2 (User (not a lender)):</b></p> <p>A. Lend 016, Venmo Payment, Severity 1</p> <p>B. Instructions: User can purchase the item he/she wants to buy easily by using Venmo for payment.</p> <p>C. Expected Result: User gets an automated email that he/she has bought the item.</p>
14	As a user, I want to rent items that are listed.	<p><b>Test 1 (Lender):</b></p> <p>A. Lend 017, Post Item, Severity 1</p> <p>B. Instructions: Lender is able to successfully able to post the item to lend.</p> <p>C. Expected Result: Lender can see the item in the list of items that are available to rent.</p> <p><b>Test 2 (User (not a lender)):</b></p> <p>A. Lend 018, Rent item, Severity 1</p> <p>B. Instructions: User can get the items that are available to rent near him/her.</p> <p>C. Expected Result: User can actually look at the items available to rent in the application when he/she browses the items available to rent near him/her.</p>
15	As a user, I would like to be able to use	<p><b>Test 1 (Lender):</b></p> <p>A. Lend 019, Use Venmo as payment, Severity 1</p>

	Venmo to pay other users.	<p>B. Instructions: User (lender / seller) gets money for an item he / she posted has been paid for by another person.</p> <p>C. Expected Result: User can see that his Venmo balance contains the money paid for by the user that wants to buy /rent the item</p>
16	As a user, I want to receive push notifications notifying me of potential buyers and when to return rented items.	<p>A. Lend 020, Receive Push Notification, Severity 3</p> <p>B. Instructions: A push notification sends a notification to the user.</p> <p>C. Expected Result: User receives a push notification on his/her device.</p>
17	As a user, I want to be able to report other users who are misusing Lendr.	<p>A. Lend 021, Report Misconduct, Severity 3</p> <p>B. Instructions: A report is sent against the user and evaluated by the system.</p> <p>C. Expected Result: The system evaluates the report and checks against other reports (if there) to decide whether the user the report was made against should be followed through and the user in question is blocked (or not) based on the results of the report.</p>
18	As a user, I want to be added to a waitlist for renting an item.	<p>A. Lend 022, Placed on Waitlist to rent, Severity 1</p> <p>B. Instructions: User is added to the waitlist queue for the item which he/she wants to wait list for.</p> <p>C. Expected Result: User who wants to waitlist can look and check his / her waitlist status.</p>



19	As a user, I would like to access an FAQ page when I have questions.	<p>A. Lend 023, Access FAQs, Severity 2</p> <p>B. Instructions: Questions classified as FAQ's are sent to the server when loading the FAQ's page</p> <p>C. Expected Result: Questions classified as FAQ's can be accessed by users who want to look at the FAQ's page.</p>
20	As a user, I would like to submit requests for updates.	<p>A. Lend 024, Request Updates, Severity 3</p> <p>B. Instructions: A user is added to the notification list for item updates</p> <p>C. Expected Result: The user who subscribed to an item receives a notification when the status of an item he / she subscribed to changes.</p>
21	As a user, I would like to be able to request contact information of sellers to discuss logistics of purchases.	<p>A. Lend 025, Contact Seller, Severity 2</p> <p>B. Instructions: As soon as a successful Venmo purchase is made, the contact information for the seller is sent to the person who purchased the rights to buy / rent an item</p> <p>C. Expected Result: The user who bought / rent the item successfully received the item receives a notification (or email) with the contact information about the seller / lender.</p>