ITEMBNB

CS 30700
Sprint 2 Retrospective

Team 32:
Ali Fareed Shirazi
Sara Xiao
Jun Shern Lim
Ming Yan Ti

What went well during Sprint 2?

In general, although we had a lot of work to do, and despite some members' schedules being full, we managed to get everything done before the sprint review. Some of the features implemented were new to us and we were inexperienced with creating them (e.g. the calendar), but we managed to adapt to the changes pretty well. The members communicated with each other effectively, and thanks to partitioning the work properly, we did not run into major issues with merge/code conflicts.

User Story #13

As a borrower, I would like to select dates while making an item reservation.

No.	Description	Estimated Time	Owner
1	Create a calendar component to be used in the item post page.	10 hours	Ali
2	Make a request to obtain availability from the backend and display the dates on the calendar.	2 hours	Ali
3	Create an API to send availability from the backend.	1 hour	Jun
4	Create "from:" and "to:" buttons to select and display the start and end dates for borrowing.	2 hours	Ali
5	Create a "clear" button that clears any selected dates.	1 hour	Ali
6	Testing	0.5 hours	Ali

Completed

The calendar component was finished and customized to look like the rest of the website. It provides features to choose a date range, display unavailable dates in red and make them unselectable, provide relevant functionality on the borrower side and lender side, and connect with the backend to share data.

User Story #14

As a borrower, I would like to make a reservation to borrow an item.

No.	Description	Estimated Time	Owner
1	Create a "make request" button that parses the start and end dates and sends them to the backend.	2 hour	Ali
2	Create a function that validates the request and confirms it does not overlap with unavailable days.	2 hours	Ali
3	Create a component that calculates and displays the estimated total price based on the dates selected.	2 hours	Ali
4	Set up backend API to create a user reservation and store it into the database	2 hours	Jun
5	Testing	0.5 hours	Ali

Completed

A user that is logged in is able to navigate to an item, choose a set of dates to borrow this item, then make a request to the item owner to borrow that item between the chosen dates. Functionality is provided to make the borrower's experience better, like clearing dates, showing total price, and checking for invalid requests and informing them.

User Story #27

As a lender, I would like to set up/edit my posted item's availability calendar.

No.	Description	Estimated Time	Owner
1	Create functionality that lets the owner select specific dates that the item is unavailable.	2 hours	Ali
2	Create functionality to allow the owner to select recurring unavailability (e.g. selecting every Saturday to be unavailable).	3 hours	Ali

No.	Description	Estimated Time	Owner
3	Create functionality to mark specific dates as exceptions to recurring unavailabilities (e.g. making a specific Saturday available).	3 hours	Ali
4	Create functionality to allow the owner to edit the above.	2 hours	Ali
5	Create backend API to update available dates for an item in the database	2 hours	Jun
6	Testing	0.5 hours	Ali

Completed

The item owner is able to navigate to their item and edit the calendar. They are able to select a date range and to make the item unavailable on that range, they can add rules to make an item unavailable on a particular day of the week for every week, and they can add exceptions to that (i.e. make the item available on a chosen week). The calendar also adds highlights in red to showcase the added unavailabilities.

User Story #23

As a lender, I would like to link one of my items to an existing item request.

No.	Description	Estimated Time	Owner
1	Add a list of the logged-in user's posted items to the item request page.	2 hours	Sara
2	Add a list of all items that have been linked to a request on the item request page.	2 hours	Sara
3	Create an interface that lets users link and unlink their items to an item request.	4 hours	Sara
5	Create backend functions to handle the requests that must be made to the server for linking and unlinking items.	2 hours	Sara
6	Test the added features.	0.5 hours	Sara

Completed

If the user navigates to an item request, they will see a list of all their items. From there, they can check items and click submit to add those items to the

recommended list for the item request. Unchecking an item and clicking submit removes those items from the recommended list. All items that have been recommended for a request are visible on the request's page.

User Story #22

As a borrower, I would like to be notified when a lender has linked one of their posted items to my item request.

No.	Description	Estimated Time	Owner
1	Create a section of the website that let users view and change their item request notification options.	3 hours	Sara
2	Create functionality to add notifications on the website itself, when new items have been linked to a user's request.	2 hours	Sara
3	Create a dedicated section of the website where a user can view their item request notifications.	3 hours	Sara
4	Create functionality to send an email notification to a borrower when lenders link posted items.	2 hours	Sara
5	Test the added features.	0.5 hours	Sara

<u>Completed</u>
If the owner of a request is online when another user links one or more items to their request, they will receive a live notification with a link to the request that's had an item added to it. Regardless of whether they are online or not, they will also receive an email notification connected to the email they used to create their account. The email notification also links to the pertinent request.

User Story #16

As a borrower, I would like to receive a notification one day prior to my borrowing deadline.

No.	Description	Estimated Time	Owner
1	Create a section of the website that lets users	3 hours	Sara

No.	Description	Estimated Time	Owner
	view and change their borrowing deadline notification options.		
2	Create functionality to add notifications to the website itself, when a borrower's deadline is coming up.	2 hours	Sara
3	Create a dedicated section of the website where a user can view their borrowing deadline notifications.	3 hours	Sara
4	Create functionality to send an email notification to a borrower when their deadline is approaching.	2 hours	Sara
5	Test the added features.	0.5 hours	Sara

Completed

If a request deadline is one day away for the user, they will receive a live notification and email notification informing them of the fact. There is also a section of the website, accessible currently from the navbar, that shows them upcoming deadlines for returning items. These deadlines are also displayed to them when they log in.

User Story #29

As a lender, I would like to view the list of borrowing requests for my posted items.

No.	Description	Estimated Time	Owner
1	Create an API function in the server to query all borrowing requests for the item to send to the server.	2 hours	Kay
2	Create a section in the item page that shows the list of borrowing requests with borrower's details.	2 hours	Kay
3	Create a function in the frontend that shows all borrowing request dates in the item calendar.	2 hours	Kay
4	Create a function in the frontend that brings the user to the borrower's userpage when clicked on the profile picture.	2 hours	Kay

5	Testing	2 hours	Kay

<u>Completed</u>
When a lender accesses their item's page, they will now be able to see a list of borrowing requests for that item. The start dates and end dates for these borrowing requests will be highlighted in the item's calendar.

User Story #30

As a lender, I would like to be notified when a borrower has requested to borrow my item.

No.	Description	Estimated Time	Owner
1	Create a function in the backend that sends an email to the user when his/her item's borrow request is made. (User is idle)	3 hours	Kay
2	Create a function in the backend that sends a notification to the user when his/her item's borrow request is made. (User is online)	3 hours	Kay
3	Create an email body where if the user clicks on the notification, it brings them to their posted item page with the new borrow request.	2 hours	Kay
4	Testing	2 hours	Kay

<u>Completed</u>
When a user makes a request to borrow an item, the owner of the item post is notified with a live notification if they are online, and an email notification if they are not. The live notification and email notification both link to the item in question, with the email notification logging the user in if they are not, and from there the owner of the item can choose whether to accept or deny the borrower's request.

User Story #31

As a lender, I would like to be able to accept or deny a borrower's request (reservation status = pending).

No.	Description	Estimated Time	Owner

1	Create a UI interface that pops up with an accept/deny button when a user clicks on a borrower request.	2 hours	Kay
2	Create a function that checks the availability of other borrowing requests and asks for a second confirmation for overlapping borrowing requests (if the user approves).	2 hours	Kay
3	Create an API function in the backend to update the item's unavailability list.	1 hour	Kay
4	Create an API function in the backend to update the borrower's request.	1 hour	Kay
5	Create a function to send email notification to the borrower about his/her borrowing request status (borrower is idle).	1 hour	Kay
6	Create a function to send a notification in the webpage to borrower about his/her borrowing request status (borrower is active).	1 hour	Kay
7	Testing	2 hours	Kay

Completed

The lender will have the option to approve or deny borrowing requests. If multiple borrowing requests have overlapping dates, when the lender chooses to approve one, the user will get a second confirmation message to approve the borrowing request again. When the user clicks on the 'Approve' button on the second confirmation message. the other overlapped requests will be automatically denied.

User Story #28

As a lender, I would like my calendar to be automatically updated when an item reservation is made, approved or denied.

No.	Description	Estimated Time	Owner
1	Set up database infrastructure to be able to store reserved, approved and denied dates/statuses.	2 hours	Jun

2	Create API functions to update reserved/approved/denied dates in the database	3 hours	Jun
3	Create API functions to send reserved/approved/denied dates back to the frontend.	2 hours	Jun
4	Create feature to update calendar interface with data retrieved from the backend	2 hours	Jun
5	Testing	1 hours	Jun

Completed

When an item reservation is made, the lender's view of that item's calendar is automatically updated to show pending reservations in blue, approved reservations in red, and denied reservations as uncolored.

User Story #17

As a borrower, I would like to view reservations that are pending, i.e. reservations that have not been approved/rejected yet.

No.	Description	Estimated Time	Owner
1	Set up email notification system	2 hours	Jun
2	Create separate approved and pending interfaces/messages for the item post page.	2 hours	Jun
3	Create a pending item reservations page.	3 hours	Jun
4	Set up backend API to send item reservation data and integrate it with the frontend	2 hours	Jun
5	Testing	1 hours	Jun

Completed

A borrower can navigate to their Pending Reservations page to see a list of their pending reservations. The borrower will also be notified, through email, if the lender approves or denies their reservation. If a reservation is approved/denied, it will be removed from the borrower's Pending Reservation page.

User Story #33

As a borrower/lender, I would like to see a list of all my approved and active reservations, and update the transaction status timeline whenever I receive/give away and return/get back items (similar to viewing and updating the tracking status bar of a package delivery from FedEx).

No.	Description	Estimated Time	Owner
1	Create active reservations page	3 hours	Jun
2	Implement tracking bar feature that can be updated when items are received/returned	3 hours	Jun
3	Set up backend API to handle processing the tracking statuses of items	3 hours	Jun
4	Testing	2 hours	Jun

Completed
A user can navigate to their Active Reservations page to see a list of their active reservations, both as a lender and borrower. Each active reservation is accompanied by a status tracker, which the user can update depending on when the item is received and when the item is returned. When an item is returned to the owner, the reservation is marked as complete and it would subsequently be removed from the Active Reservations page.

What did not go well during Sprint 2?

Although we finished all of our user stories in time, we had to make quite a few last-minute changes near the end and were working until the deadline to meet all specifications. Also, one member could not finish all their user stories in time and other members did it in their stead. The features that were added could use additional testing and improvement to bring them up to quality. As usual, discoveries of unfortunate bugs and errors in implementation meant a longer time than ideal was needed to fix issues that were discovered in the functionality of the website. In general, more testing seemed to be needed, as some features were seen to be bugged during our demo rehearsals.

How should we improve?

Communication between members regarding what they can feasibly accomplish in time and accurate reports on expectations and results would speed up the progress of the project and ensure that everything operates smoothly and no time is spent on last-minute fixes or adding necessary features.

Members should also try to do work early and finish it early so more time can be spent on debugging and incremental improvements, rather than hurrying to meet deadlines.