

Spring Progress Report Elite Loot

Will Sims, Kia Teymoury, Katherine Bajno, Meagan Olsen

Purpose

- eBay would like to make use of recently released public APIs in order to explore the eSports market and target new customers.
- Currently, there aren't any known products that make it easy for eSports fans to find merchandise and receive updates about their favorite games.
- The purpose of the eBay iOS eSports project is to develop an application that contains useful information about eSports and allows customers to discover eSports merchandise being sold on eBay.

Goals

Build an iOS application that:

- Helps eBay learn more about the eSports market and about new shopping opportunities
- Allows users to find and purchase eSports merchandise that is being sold on eBay.
- Creates an environment for millennial gamers to learn more about upcoming eSports events.

Expo Pitch

- iOS App targeting millennial gamers
- Can search for merch
- Can browse merch related to specific games and events
- Can purchase merch through eBay
- Can favorite and unfavorite games through a personal account
- Uses Google Firebase and Swift programming languages
- Games supported: Overwatch, League, Dota 2, Smash bros Melee, Street fighter, Rocket League, CS: Go, Heroes of the storm, Starcraft 2, and Hearthstone

User Study Results

Summary:

In general, all participants found this application moderately easy to use. A little under 50% of the participants found this application easy to use. All the participants claimed to have been involved in gaming. The test took between 15-30 minutes to complete.

User Study Results

Participants:

- 5 participants
- All OSU students
- Ages 18-24

User Study Results

Procedure:

- test administrator provided quick briefing of the application
- participant completes tasks
- test administrator observed, recorded feedback, and asked and answered questions
- Follow up questions

User Study Results

Tasks:

- Creating an account
- Finding info about an event
- Finding tweets related to an event
- Browsing merchandise for a game and event
- Viewing the description of an item
- Favoriting and unfavoriting a game
- Signing out

User Study Results

Task Ratings:

After each task, the administrator asked the participant to rate the ease of use on a 10 point scale with 1 being super easy to use and 10 being difficult to use.

- 1-3 extremely easy
- 3-6 moderately easy
- 6-8 moderately difficult
- 8-10-extremely difficult

Task Ratings

Mean of task ratings

Task	Mean
1-creating an account	2
2-find info about event	5
3-find tweets about an event	3
4-browse merch related to a game and event	1.5
5-view detailed description of item	1
6-favorite and unfavorite and event	2.25
7-sign out	1

User Study Results

Follow Up Questions:

- What did you like most about the app?
- What did you like least about the app?
- What is one thing you would change?

All the participants agreed that this app was easy to use. All had an extremely good overall impression of the app. All thought the app had extremely good interactions. All had an extremely good impression for the looks and feel of the app. Most(60%) said that they would reuse the app.

User Study Results

Liked Most:

- Presentation of info
- Games easy to find
- Merch readily accessible
- Clean UI
- Feel

Liked Least:

- Reset button in filter
- Useless hearts on events page
- Lack of variety of games
- Browse more than just shopping
- Looking hard to find needed info

User Study Results

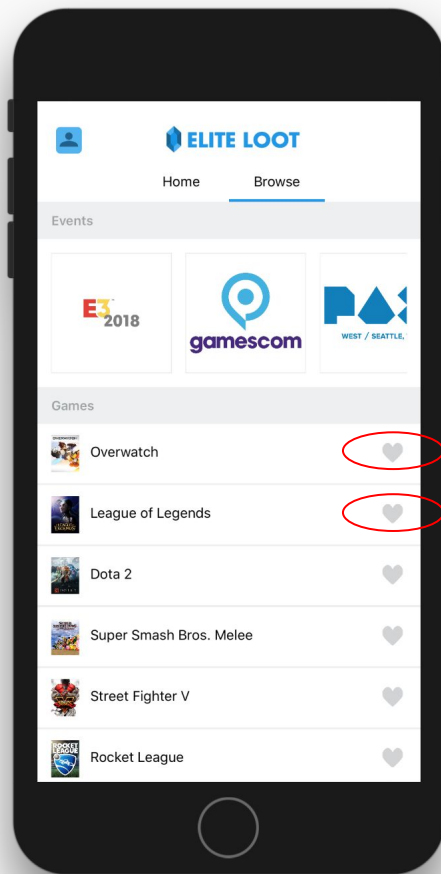
Recommendations:

- Less info on home page
- Link under browse pull up more general info about game/event
- Tab to go to next field on login page
- Add a search bar

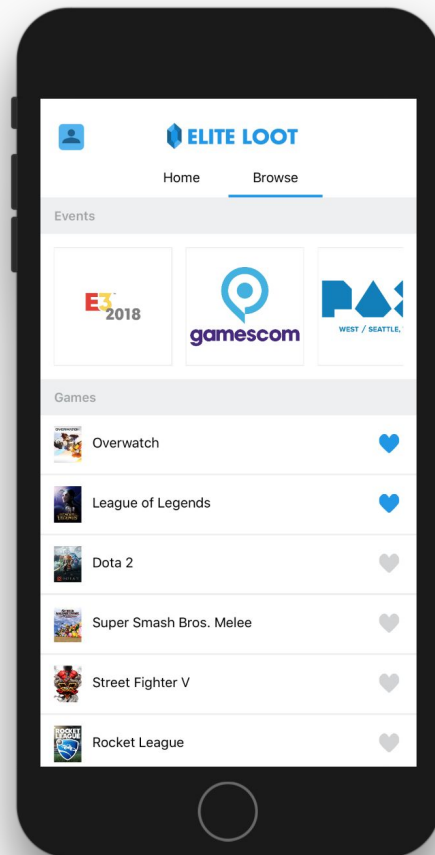
System Features - Favorites

Requirements

- Games will be favorited by toggling the favorite button which will be displayed near a game title on the browse screen.



iPhone 8 Plus - iOS 11.0

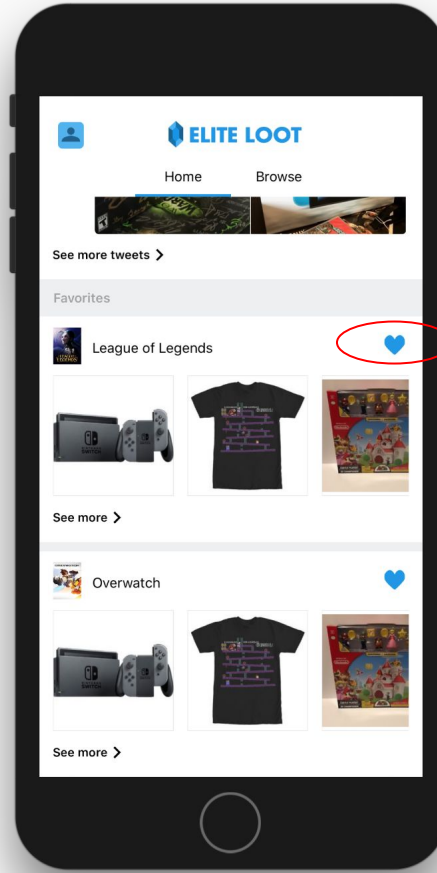


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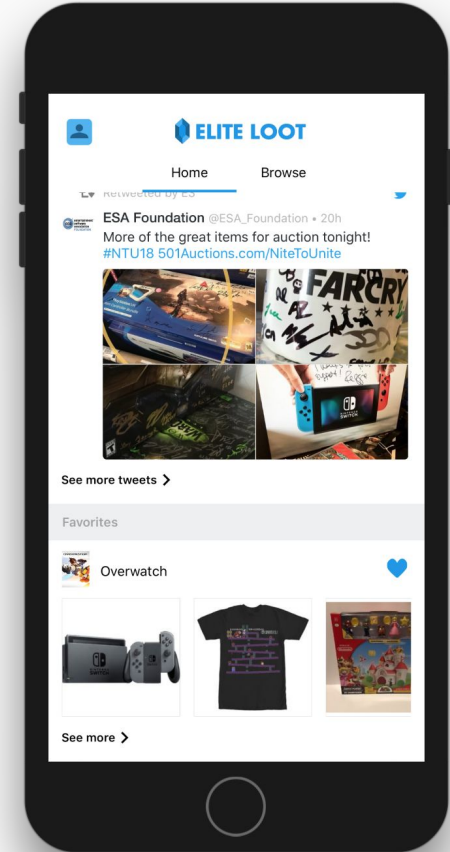
System Features - Favorites

Requirements

- The user will be able to favorite and unfavorite games which will appear on the home screen.



iPhone 8 Plus - iOS 11.0

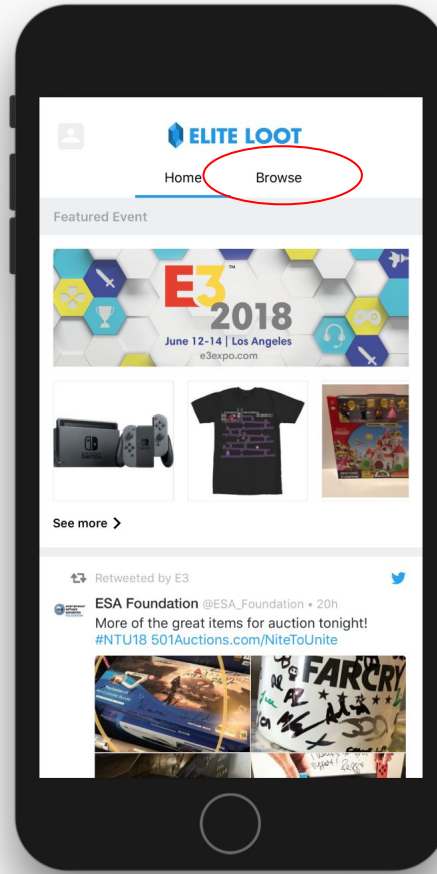


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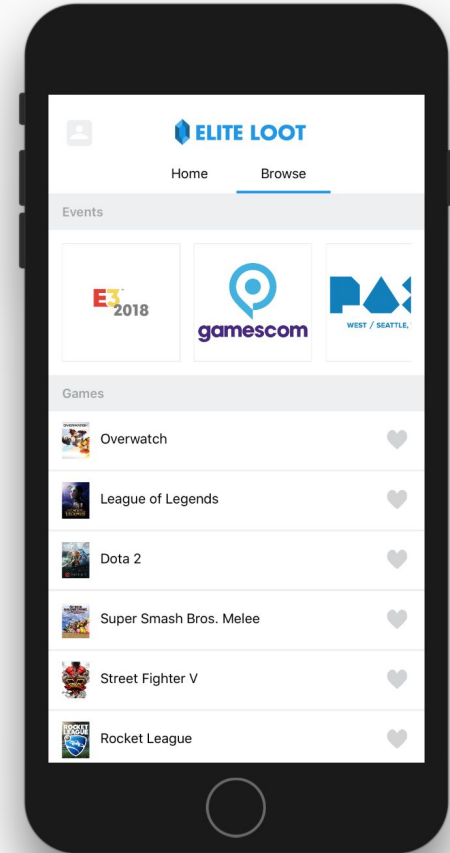
System Features - Browse

Requirements

- Browse will be will be accessed by selecting the browse tab from the home screen.
- The user will be able to browse related merchandise for different games and events.



iPhone 8 Plus - iOS 11.0

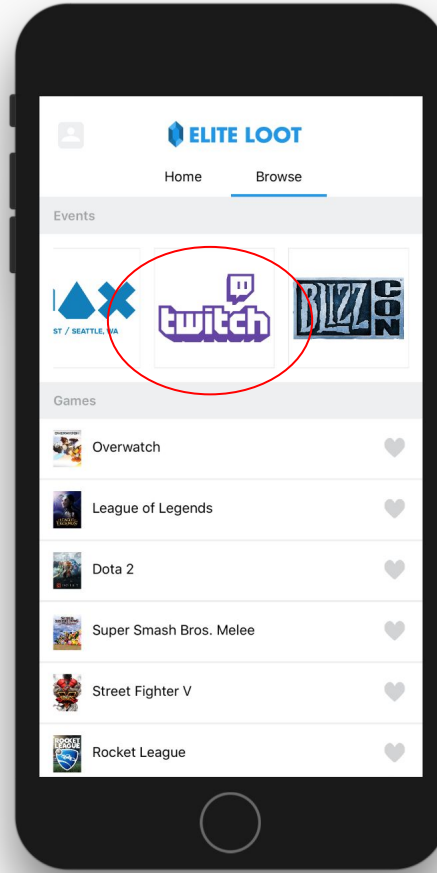


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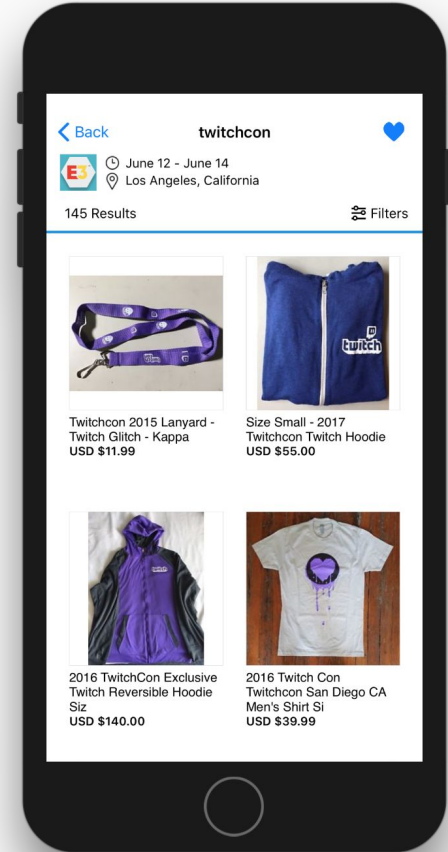
System Features - Browse

Requirements

- The interface will display five different events for viewing merchandise.
- The user will not be able to access past events.
- The user will be able to select the events category from the initial browse screen.
- When a user selects a specific event, they will be able to view related eBay merchandise.



iPhone 8 Plus - iOS 11.0

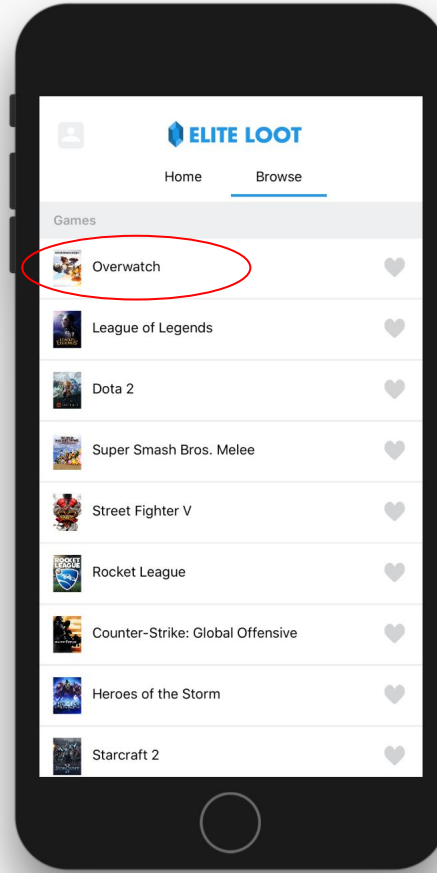


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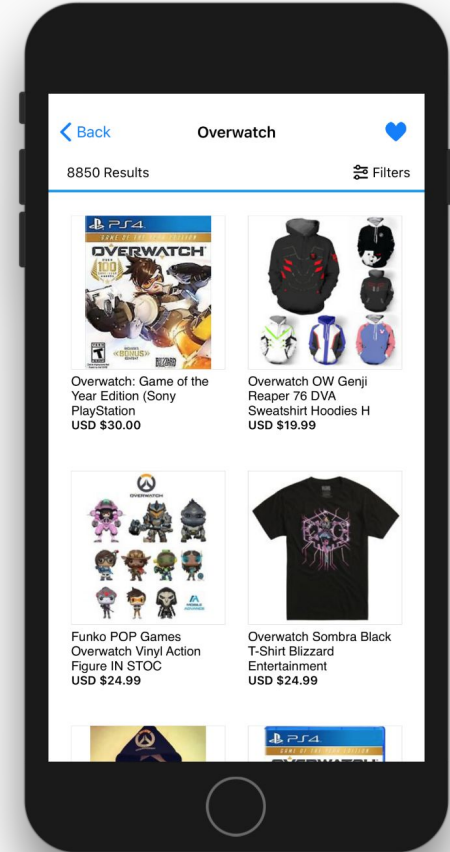
System Features - Browse

Requirements

- The interface will display at least six different games for viewing merchandise.
- The user will be able to select a game from the from the initial browse screen.
- When a user selects a specific game, they will be able to view related eBay merchandise.



iPhone 8 Plus - iOS 11.0



iPhone 8 Plus - iOS 11.0

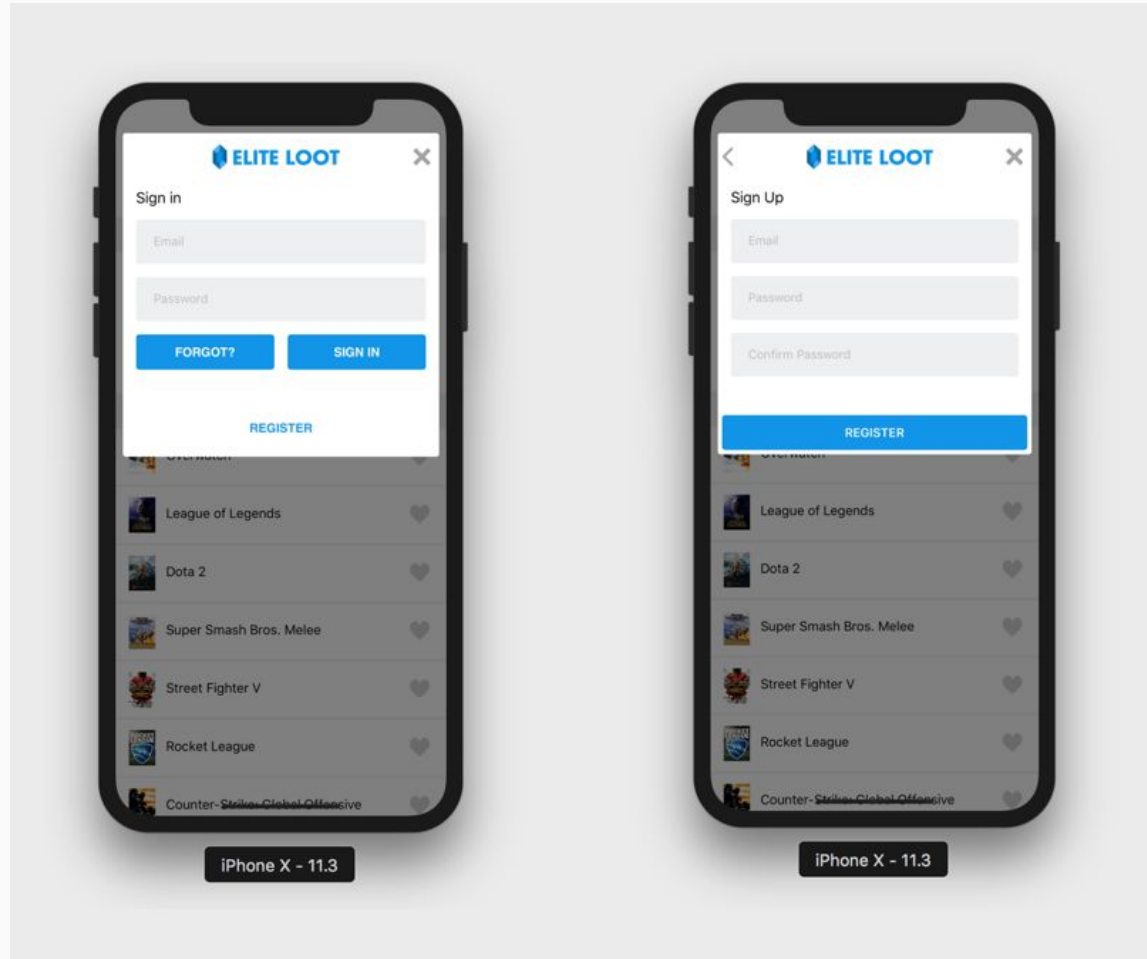
Problems Encountered

- One problem faced when storing the information in the Firebase Database rather than Firebase Storage was the order that tasks happen in the application. The view loads before pulling the information from the Internet.
- The solution to this was changing the way that views load by having a base case that if there were no elements in the array yet, only one view would appear.

System Features - Sign In - Sign Up (Firebase Auth)

Requirements

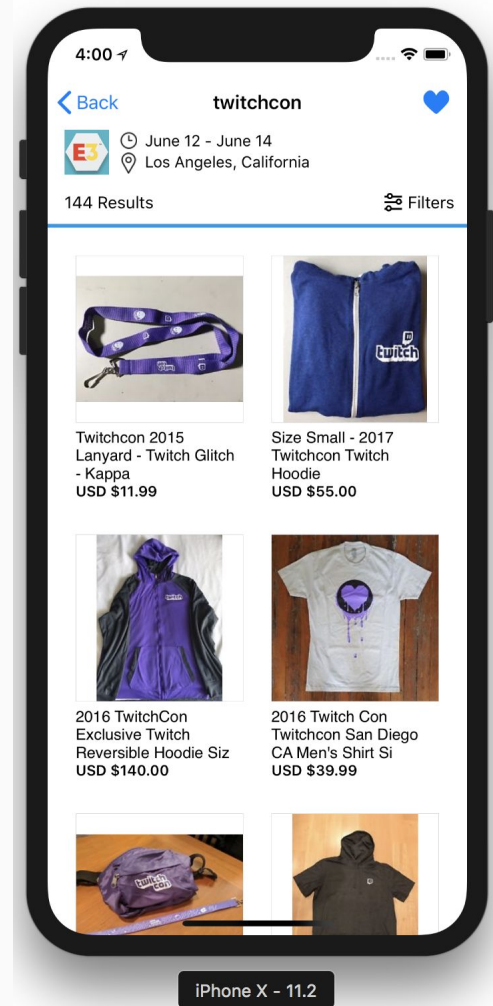
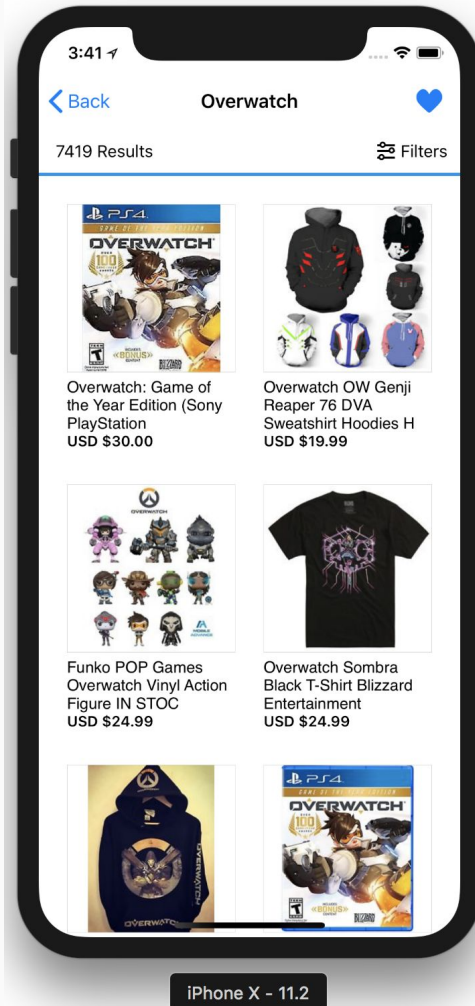
- Existing users are able to sign with their email and password saved in Firebase
- Sign up is for none users to be able to create an account to favorite games



System Features - Browse Games & Events

Requirements

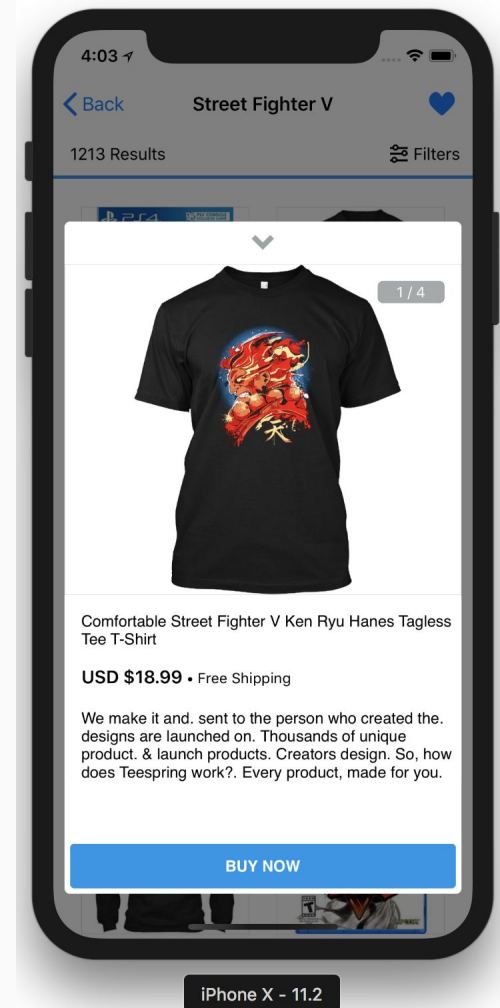
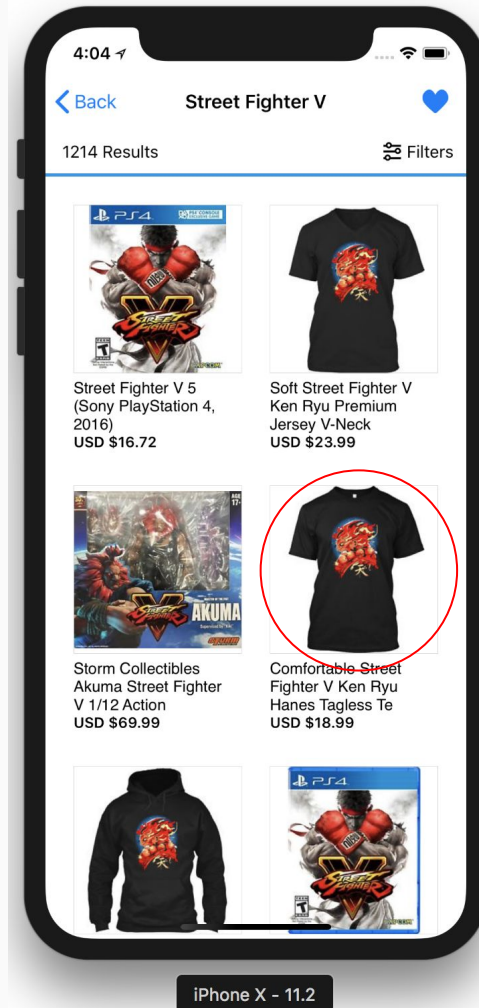
- Users are able to scroll through all the items retrieved from the database
- Filtering and product details is also included within the page



System Features - Product Details

Requirements

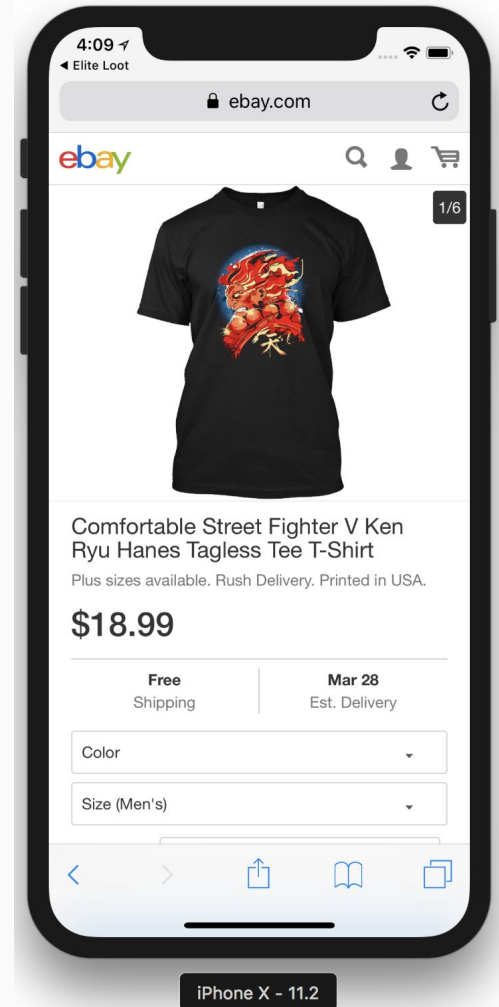
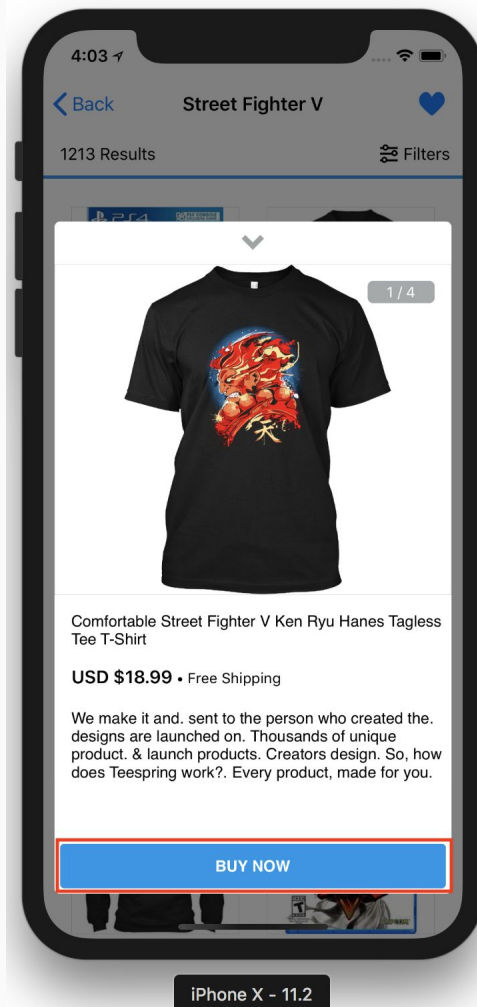
- Clicking on a merchandise opens product details page.
- Users are able to view more images by swiping on the image



System Features - Product Details

Requirements

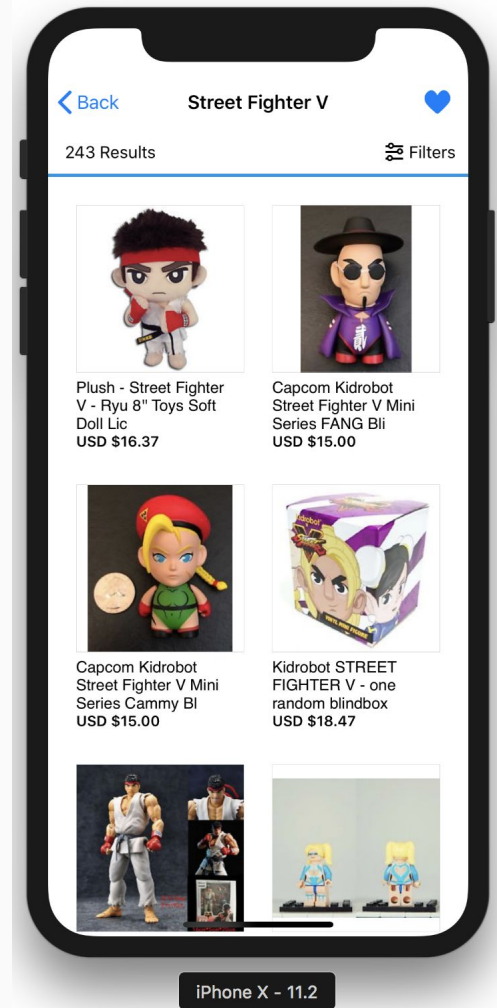
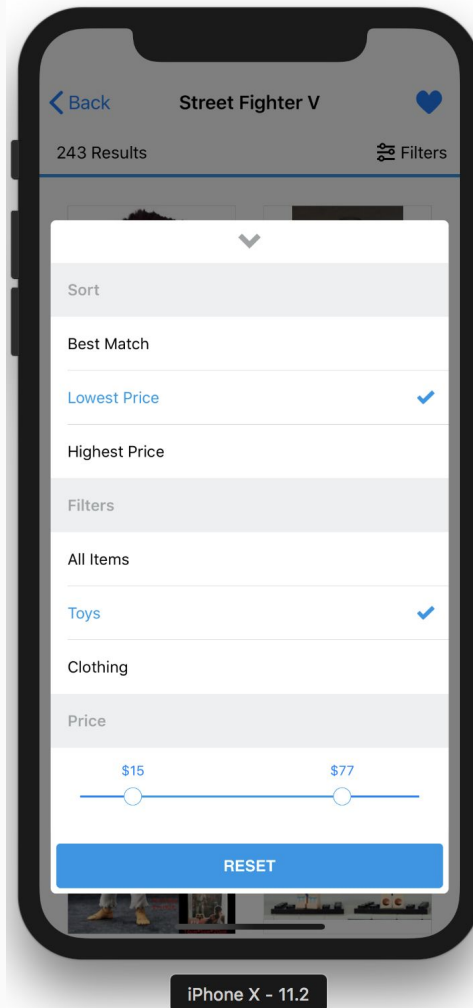
- The buy button takes the user to the eBay website to finalize their purchase.



System Features - Filtering

Requirements

- Sort section allows to sort search by Best Match, Lowest Price, and Highest Price
- Filter allows to filter the search by All Items, Toys and Clothing
- Users could also filter their search with a price range preference.



Improvements to Make

- Add more comments
- Refactoring
 - Make some of the code more reusable
- Navigate to eBay app for purchasing rather than the website
 - If users have the app downloaded we need to open the item in the app rather than the website.
- Minor UI fixes

Problems Encountered

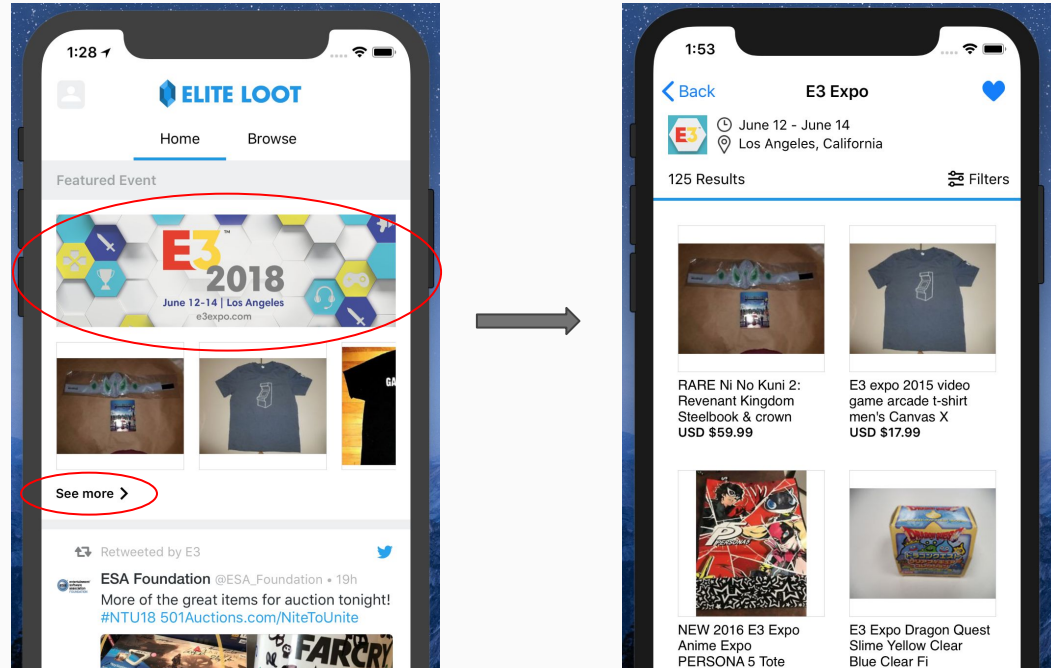
- Token expiring
 - Token had to manually be updated every few hours
- Merchandise Image quality
 - Images were blurry and extremely bad quality

Solutions to Problems

- After looking more into the token request call and eBay Auth, I was able to successfully implement retrieve token and use it within the application.
- I start looking more into the API and noticed they are few more request to get all the images needed and I was grabbing the image from a wrong url.

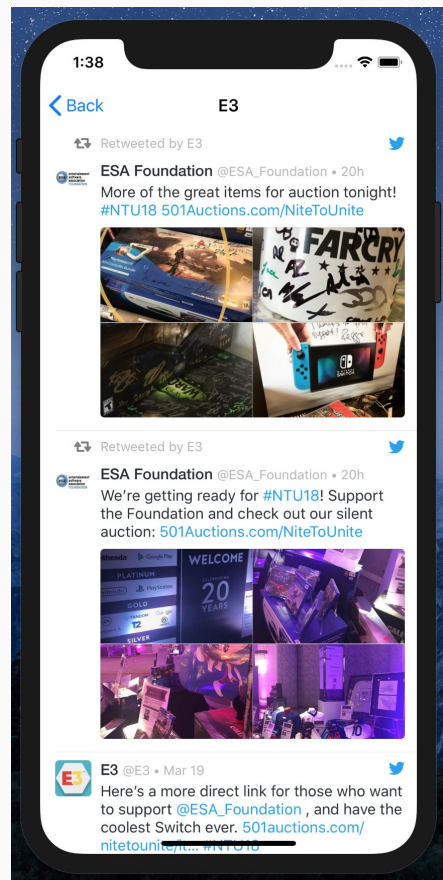
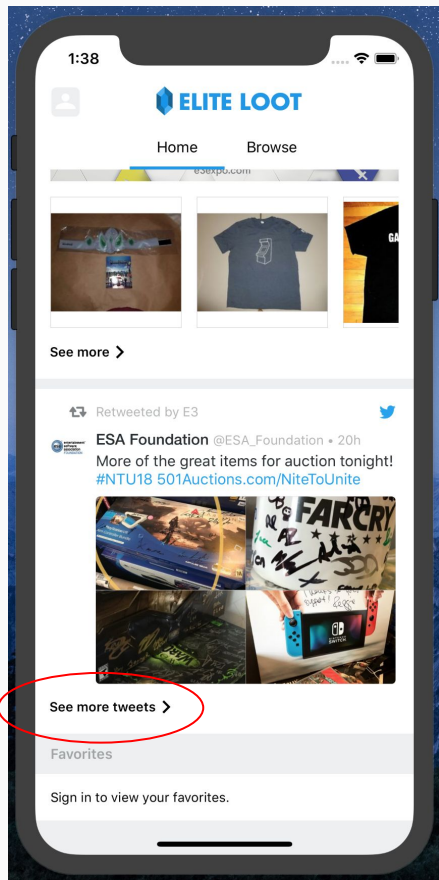
System Features - Featured Events

- The user will be able to view a featured eSports event on the home screen that contains the date and location
- The user will be able to view merchandise associated with the featured event on the home screen.
- The user will be able to navigate to the featured event browse page by tapping on the event card.



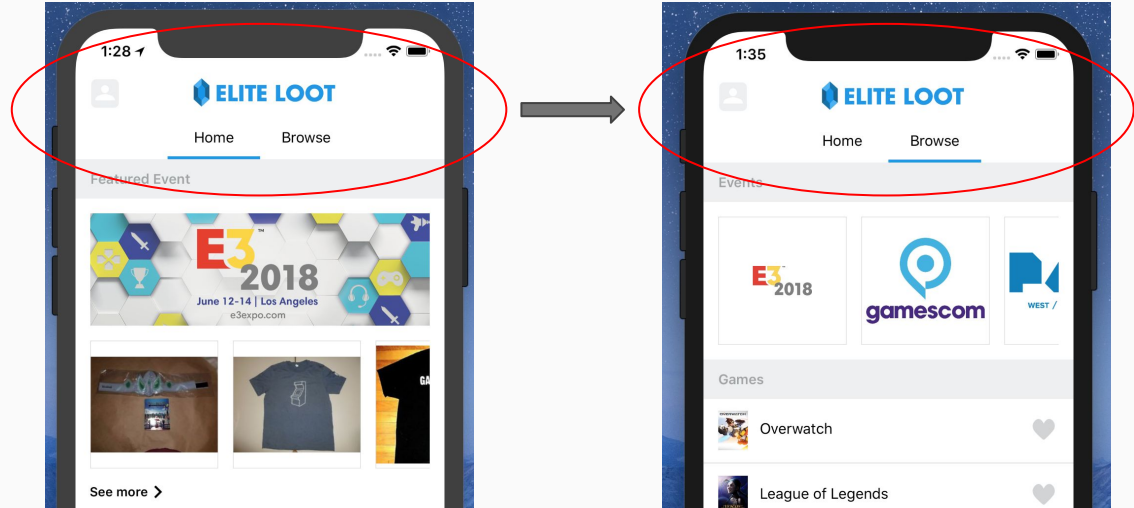
System Features - Twitter

- The user will be able to view Tweets from targeted eSports accounts.
- Tweets will be viewable from the home screen.
- The user will be able to view the most recent tweet from a twitter account associated with the featured event.
- The user will be able to see additional tweets from the associated twitter account



User Interfaces - Navigation Bar

- The user interface will have home and browse screens that display information related to the eSports events and merchandise.
- Browse will be accessed by selecting the browse tab from the home screen.



Problems encountered

- Parsing the JSON when fetching the most recent Tweet from a targeted account.
- Dynamically sizing the Twitter cell after grabbing the most recent tweet.
- Scaling the events banner to different screen sizes.

Remaining Work

- Add event information to browse event pages
- No internet notification
- Filter padding
- Remove favorite icon from browse event
- Implement favoriting from browse game screens
- Utilize firebase data storage
- Authentication password matching