



Regalia Share Design



Team Member Information

- Evan Mitchell
- Brevin Wittmer
- Collin Stiner
- Nick D'Agostino



Client Information

- **Graham Watson**
 - Graham Watson is the web development manager for the Center for Business and Economic Research at Ball State University. He develops websites and web applications for CBER, the Miller College of Business, and the Muncie community. A graduate of Ball State University, he earned a bachelor's degree in computer science.
- **Melinda Messineo**
 - Melinda Messineo joined the Department of Sociology at Ball State in 1999. Professor Messineo received her degrees from the University of California, Riverside, her MA and PhD in sociology. Professor Messineo's current research focuses on race, class and gender in the media and the scholarship of teaching and learning. Dr. Messineo currently teaches courses in the sociological of media, research methods, internship, and the sociology major capstone



Business Requirements

1. **Achieve a customer satisfaction measure of at least 80% within 3 months of the release.**
2. **Remain at no cost by using free tools and software.**
3. **Use pre-established Ball State technology.**



Use Cases

Actors

- Reserver
- Reservee
- Admin

Use Cases

- List an Item
- Reserve an Item
- Accept, decline or alter a reservation
- Accept, decline or alter further an altered reservation
- Report a website issue
- Edit an Item
- Delete an Item

Requirements



Functional Requirements:

- If the user does not have an account, the system will allow them to create a new login.
- The system shall allow for the user to login using their credentials.
- The system allows the user to view and reserve listed items from the listings page.
- The system allows the user to add and remove items to/from the listings page.
- The system will notify the user via email notifications, triggered by various events which are determined by the user in settings.

Non-functional Requirements:

- All security and authorization needs to be handled through Ball State's Shibboleth system.
- Needs to be accessible from all devices with a web browser.
- The current UI needs to be reworked and also fitted with the Bootstrap framework.
- The system needs to clearly represent Ball State University and be designed for Ball State faculty members..

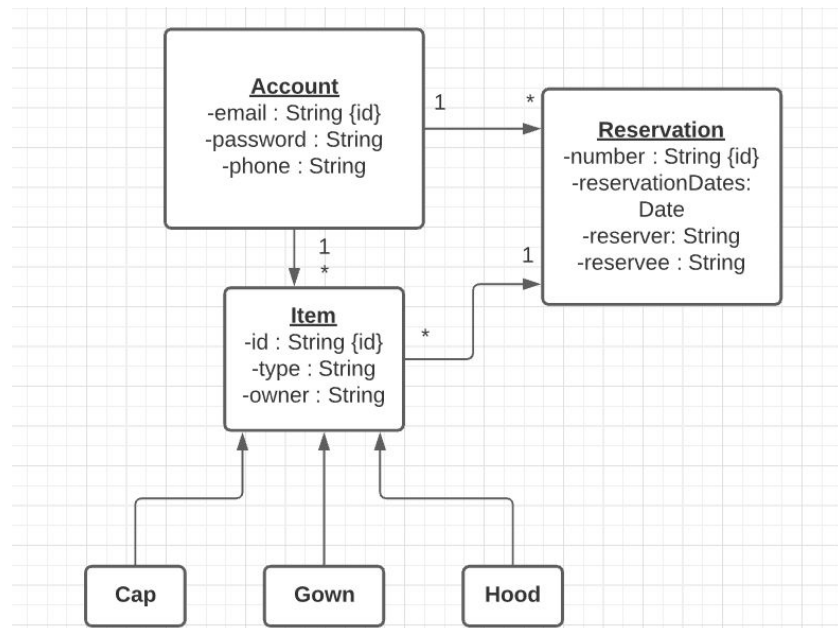


TechStack

- PHP
 - CakePHP
 - React
 - Amazon Web Services (AWS)
 - MySQL
 - PHP Storm
 - GitHub
- We will need to schedule a meeting with Ball State's networking department to discuss how we will use established Ball State technology to host the application.

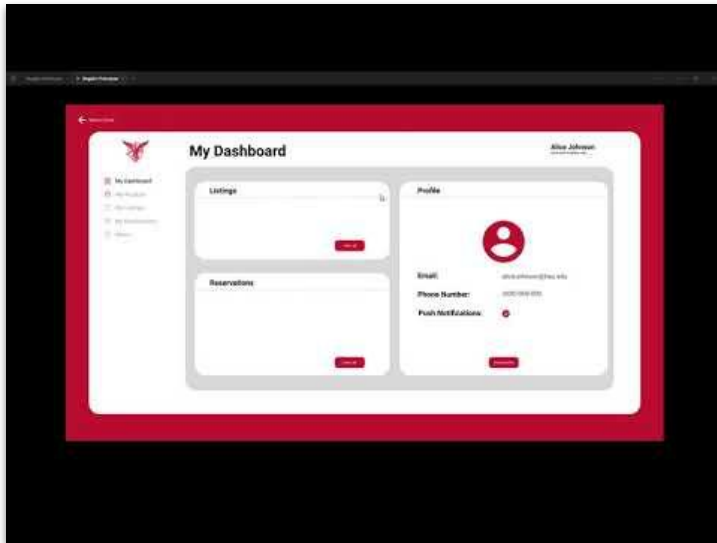
Domain Model

- Our Domain is small as we do not foresee this being a large project
- The Account is the most important part of the domain, as it holds a relationship with both Reservation and Item
 - One account can have multiple items
 - One account can have multiple reservations
- There are three items: Cap, Gown and Hood
 - One reservation can have multiple items





Prototype



- With this prototype, we are trying to make the UI match all other Ball State applications.



First Iteration Features

- Transition the code from CakePHP v3 to CakePHP v4
- Make the program look more like a Ball State Application. To accomplish this, we will completely rebuild the UI.



Mentor Feedback

- Keith mentioned that we could add to the business requirements that we are not directly saving Ball State money, instead the employees are since they will not have to buy new regalia to only use it a few times.
- Mentioned using Docker could be a helpful tool for maintaining a consistent development environment.
- Talked about how using a tool like DBeaver could help us develop our database schemas.



Client Feedback

- Mentioned that a transition to CakePHP v4 is important, for the sustainability of the project
- A chat functionality between borrower and lender could be possible, however it is recommended that this should be the last thing added
- Wants the program to look like every other Ball State webpage and service
- They approve of our IDE, PHPStorm, and that we should look into a testing service, TravisCI
- In the UI, there should be a placeholder if no image is provided and each listing should have a color, size, variation, and the option to add notes.
- React should only be used if we are comfortable learning it and implementing it. Vanilla JavaScript along with HTML and SASS should be able to do just as well.