

Client Background and Information

Renowned as one of the best programs in the country, Butler Theatre strives to push the boundaries of our art as we create innovative productions and instill in our graduates an entrepreneurial spirit that will help them to succeed in an ever-changing market. With a strong liberal arts foundation, we foster the development of well-rounded, critical-thinking artists who can plot their own successful path in theatre and in life.

The theatre department has well over 15,000 articles of clothing in their collection. Organizing and categorizing these costumes is a monumental task and having a system to keep track of the different pieces would make the lives of the staff much easier.

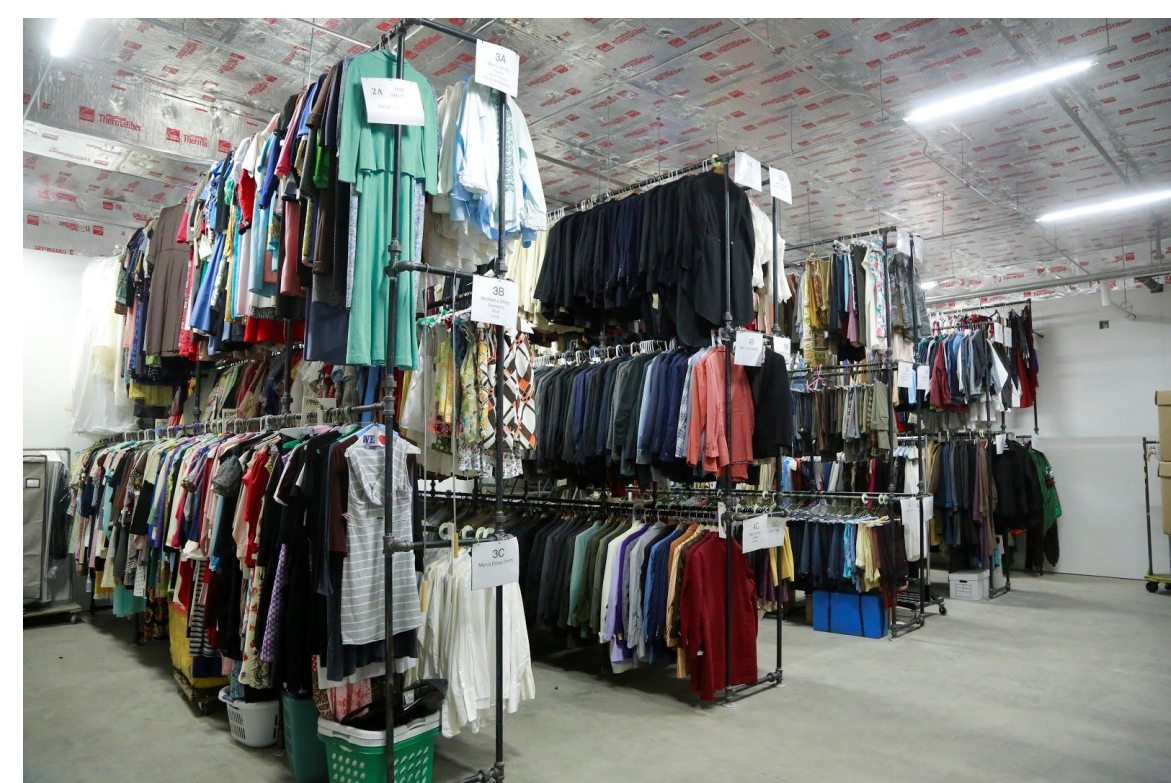


Figure 1 & 2: The garment storage in the Theatre Storage & Scene Shop.

Objectives

- Design a wireframe to show the client the front-end interface
- Create a WordPress site to display information
- Create mySQL database for garment attribute information storage
- Build a rest API to attach the front-end website to the back-end database.

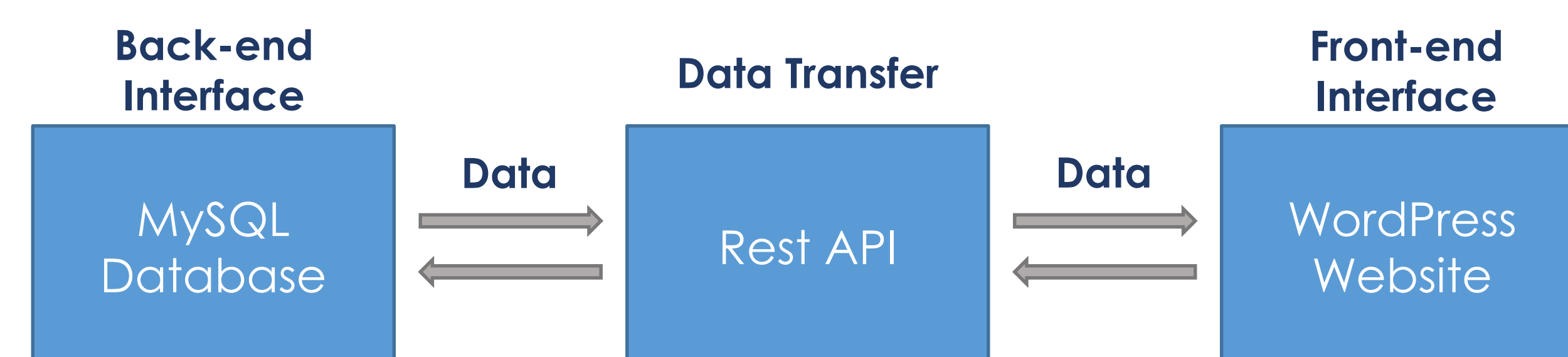


Figure 3: Diagram of how the data will flow from the database to the website. The website will pull attributes, images, etc. from the database and the API is the facilitator.

Development Tools

- Adobe XD: Wireframing tool for website design
- WordPress: Content management system hosting the Butler Theatre website
- phpMyAdmin: Administration tool for developing the MySQL database
- Node Express: Used to design and develop the API

Outcomes

The wireframe design process helped us determine how we would like users to interact with the website. We received input from our client on the design to understand how they would want users to be able to interact with the website. The WordPress site was created and the design aspects were implemented, established matching fonts and color schemes, and layouts.

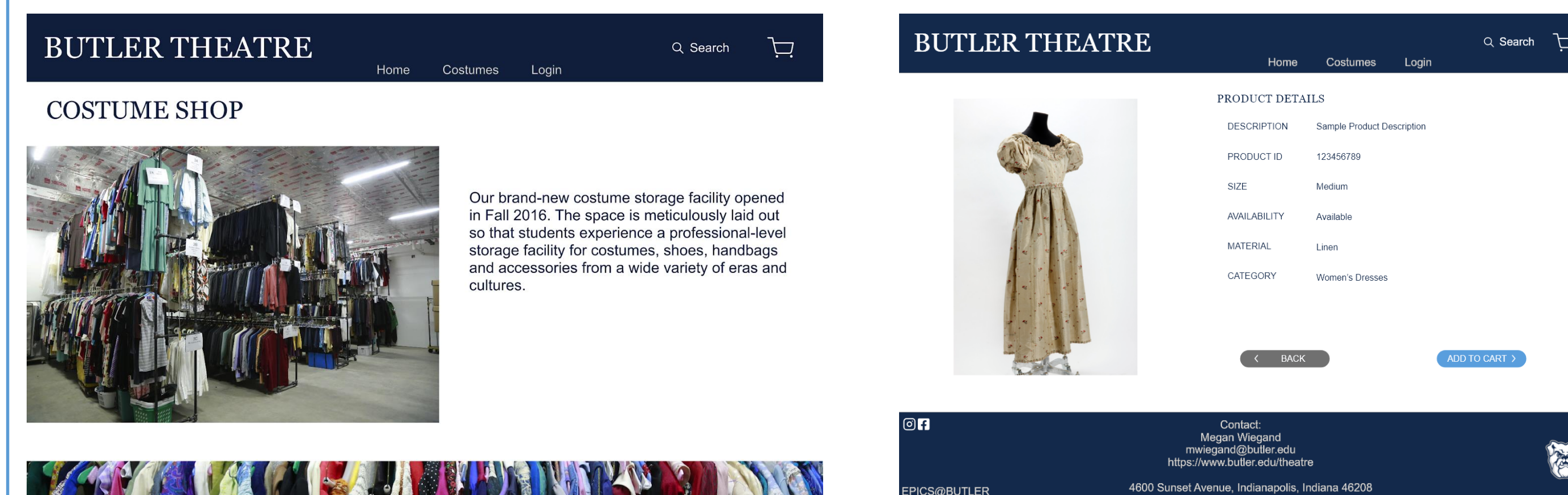


Figure 4 & 5: Wireframe design for the Butler Theatre website.

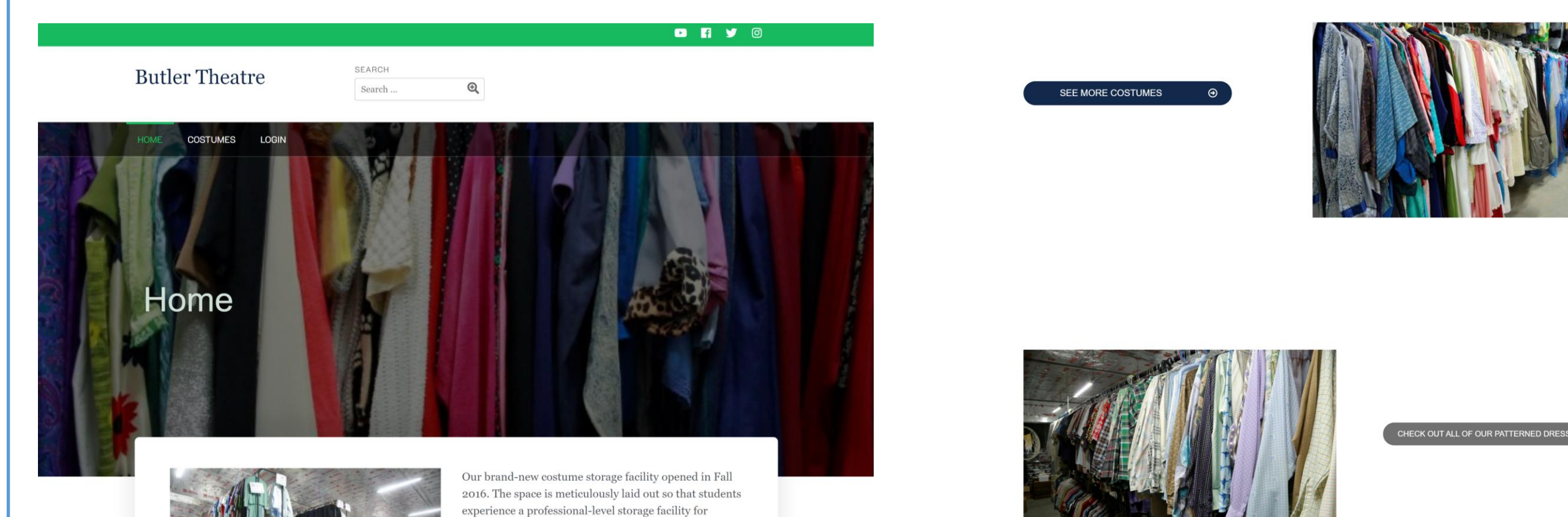


Figure 6 & 7: Wireframe design for the Butler Theatre website.

The primary table aims to store general attribute information, with lookup tables attached to simplify sorting later. Each garment type has a table for their own specific qualities. Functional tables on the left will hold generic standardized information such as color, size, gender, era and ethnicity.

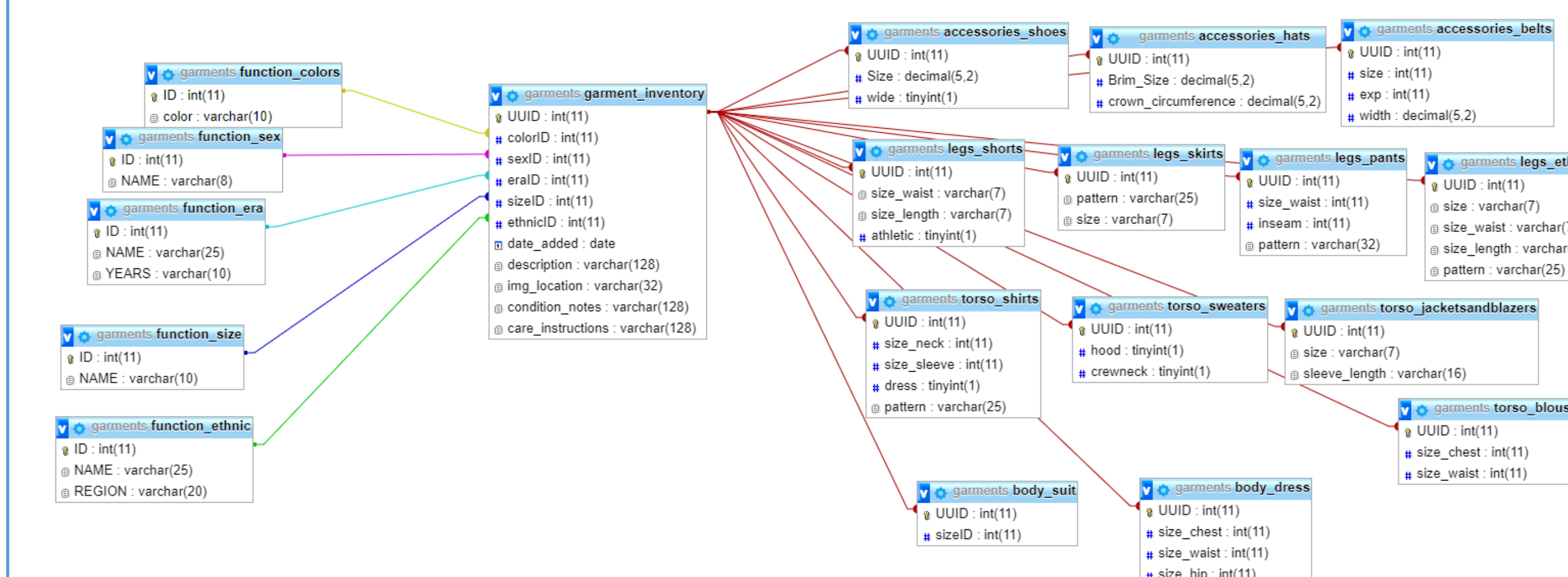


Figure 8: Entity Relationship Diagram for the garment database.

Project Accomplishments

- Completed the wireframe design for the WordPress website
- Created the WordPress site and began to implement the design elements from the wireframe
- Updated and expanded the ERD for the database
- Created a database for storing garment attributes
- Began initial research into API and identified the necessary elements

Goals for the Future

The main work to be completed in future semesters will be connecting the database and the front-end user interface, polishing the front-end design elements, and testing for quality assurance and breakability.

Website:

- The website will need to be further updated to match the design of the wireframe
- Specific features that will need to be implemented:
 - Garment search options
 - E-commerce capabilities
 - Accessibility features
 - Login options, and auth0 login for administrative purposes
 - The website should also be optimized for use on all devices (computers, tablets, phones, etc.)

Database:

- Consider how images and data will be inputted into the database
- Quality assurance testing and breakability
- Implementation of an Identity function to automatically increment a universally unique per-garment identifier
- Migrate functional tables to lookup tables using natural keys

API:

- Develop and complete the Rest API
- Utilize Node.js & Express.js to write the code for the API

Butler Theatre Team

Team Leader: Justin Rice

Client Liaison: Gwen Spencer

Database Developers: Andrew Nesler & Steven Nirenberg

Documentation and Website Lead: Grace Maynard

Acknowledgements

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