



Capstone Project - Video 1 Front End

Ben Bowles

MIX xPRO - Coding Program

Video 1 - Agenda

- I. Overview
- II. Front End Architecture
- III. Authentication Methods
- IV. Design Concerns



Overview

- Project was coded from scratch
- Uses the Card Component from Bootstrap
- Uses most current version of...
 - React
 - React-DOM
 - React-Router
 - React-Router-DOM
- UI Design Concerns
 - Ease of Viewing
 - Unique Features
 - Sidebar - quick data access
 - Footer - transaction record

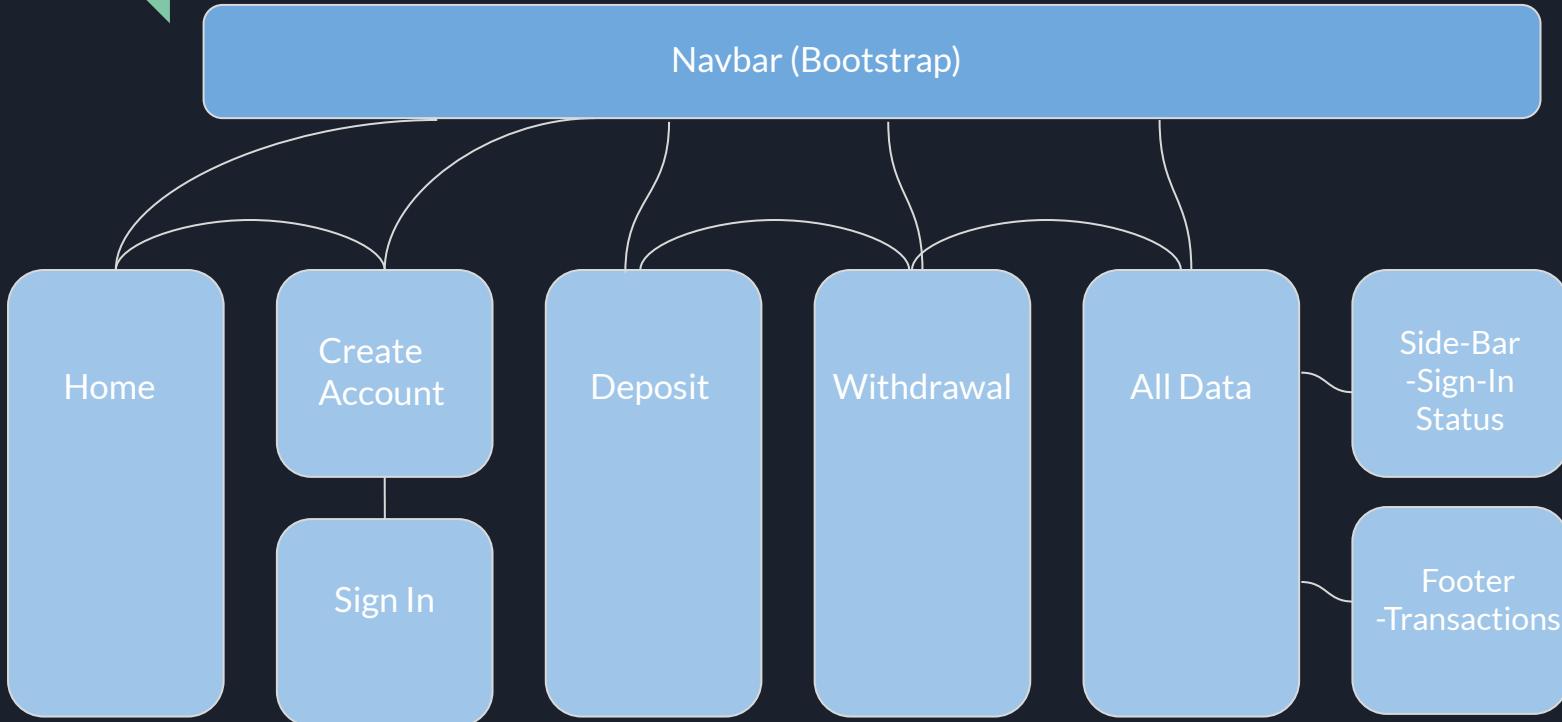
Front-End Architecture - Diagram 1

Account Context

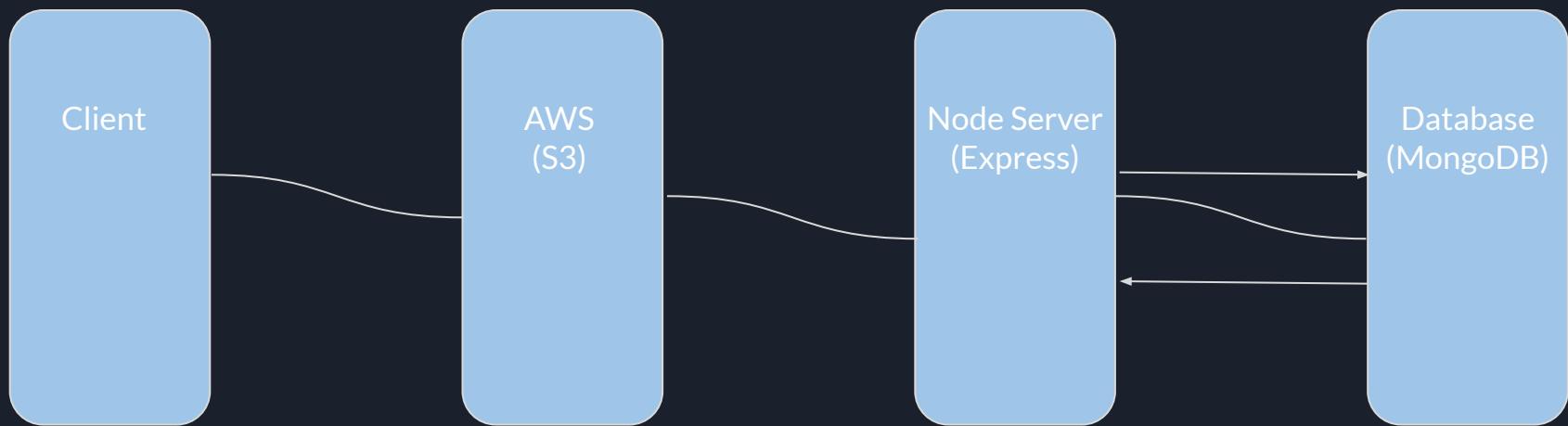
Index.html

React Components

Component Architecture - Diagram 2



Application Architecture - Diagram 3





UI/UX Design Decisions

- Visibility of <div>'s
 - Understanding how rendering and CSS work
 - Ease of tracking Elements in Developer Tools (Chrome)
- Ease of Viewing
 - Comparison to production app's
 - Less "visual density" - spacious Layout
- Consolidation of Data
 - What data objects are related? (Example: Username and Account Information)
 - What else would someone want to see that is relevant to what they are looking for?



Authentication Methods

Field Validation

- Basic
- Verifies Data
- Helps in Error Handling



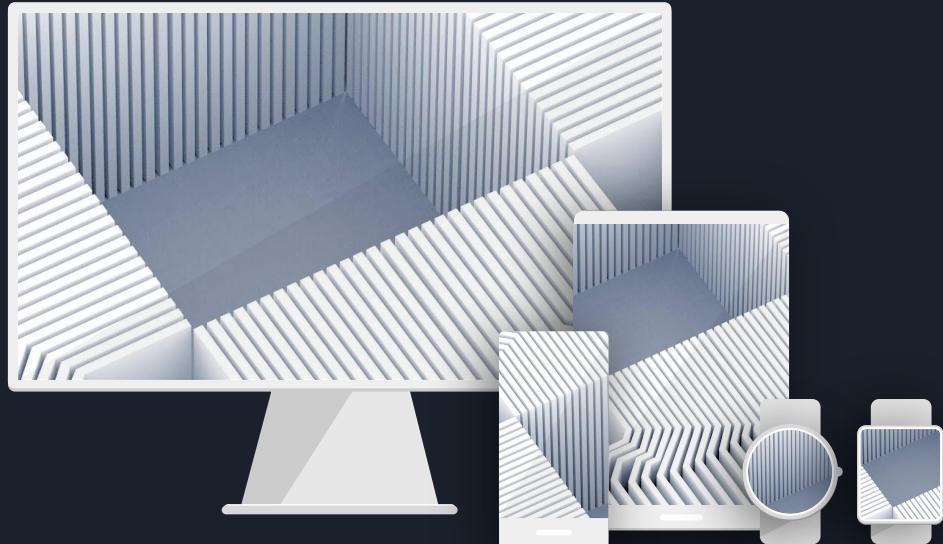
OAuth

- Secure
- Convenient
- Challenges:
- Time-Prohibitive
- Would need more time to implement



Video 1

Thank you!





Capstone Project - Video 2

API and Database

Ben Bowles

MIX xPRO - Coding Program

Video 2 - Agenda

- I. Overview
- II. Database Usage
- III. Data Abstraction Layer
- IV. Additional Features
- V. Database Specs



Data Usage

I. Persistent Data

- A. Sign-in Information (Username, Email, Password)
- B. CreateAccount Component was written to include MongoDB
 - 1. Account information is sent to the database

II. Dynamic Data

- A. Currently stored locally
- B. Goal is to incorporate the MongoDB with dynamic data as well
- C. Account Balance - stored locally
- D. Transactions (Deposits and Withdrawals) - stored locally
- E. Transaction History (including timestamp) - stored locally



Data Abstraction Layer

- I. Background
 - A. DAL is a type of API
- II. Specification
 - A. DAL for this app is built on top of MongoDB Database
- III. Handling of Data
 - A. DAL sends certain variables to Database: { username, email, password }
- IV. Relation to API
 - A. Node Server using Express
 - B. Standard HTTP requests to database (GET, POST, PUT, DELETE)



Additional Features

- I. Randomly generated User ID for every account
 - A. This is displayed when a new account is created

API Specifications

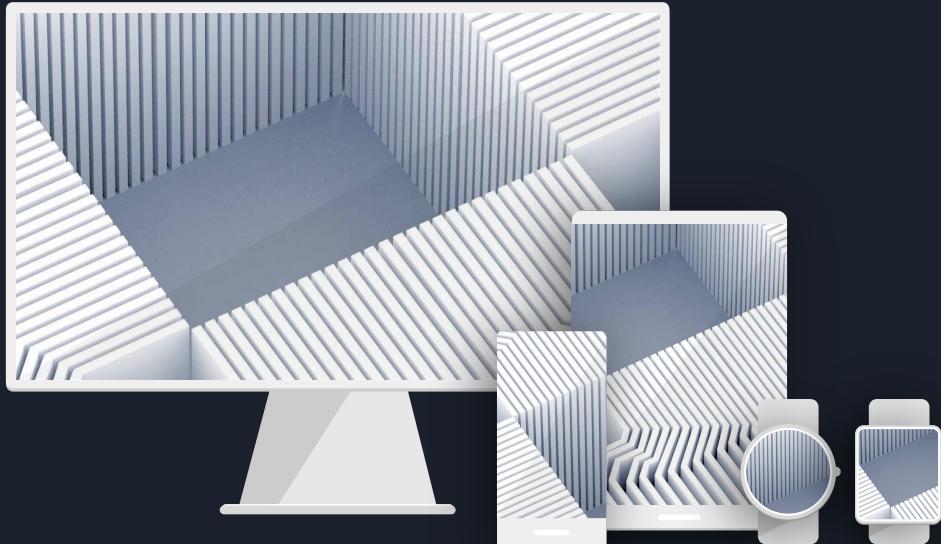


- I. API Type: REST API
 - A. NoSQL
 - B. MongoDB is NoSQL
- II. API Endpoints
 - A. One for GET and POST
 - B. One for PUT and DELETE



Video 2

Thank you!





Capstone Project - Video 3 Deployment and Summary

Ben Bowles

MIX xPRO - Coding Program

Video 3 - Agenda

- I. Overview
- II. Deployment to AWS
- III. Demonstration
- IV. Additional Features
- V. Reflection



Deployment to AWS

I. Choosing a deployment platform - Initial Challenges

- A. AWS is overly complicated
- B. Vercel, Heroku, Netlify advertise as being faster, easier, etc.

II. Docker

- A. My Capstone Project does not use Docker
- B. I understand Docker uses containers and images to facilitate data transfer/app usage
- C. But I am not sure why Docker is necessary or beneficial

III. Deployment Challenges

- A. Major differences between Development version and Build version
- B. Needed to explore build version on local server to ensure it works



Demonstration

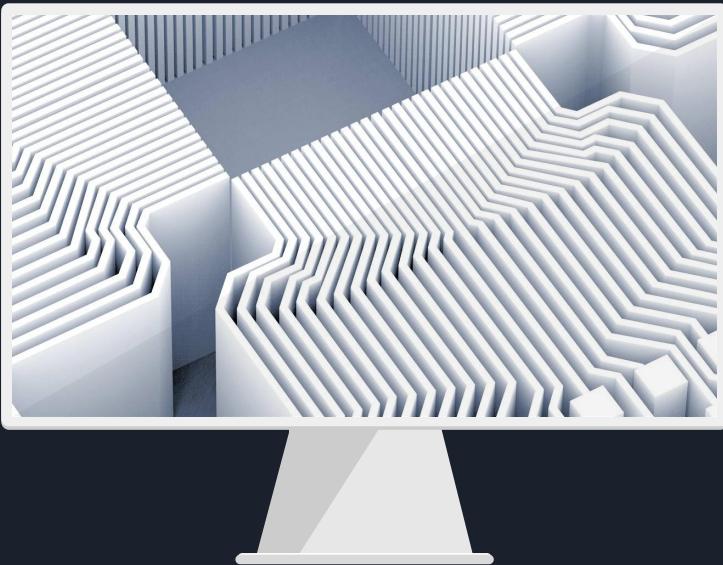
- I. Check all Navbar links
- II. Notice headings where Bootstrap is mentioned
- III. Examples of Context
- IV. Show client and server architecture
 - A. Fundamentals of App Design



Additional Features

- 
- I. Randomly generated User ID for every account
 - A. This is displayed when the account is created
 - II. Banner for design considerations
 - III. All <div>'s have a border for visual purposes and understanding how rendering works

Reflection and Consideration

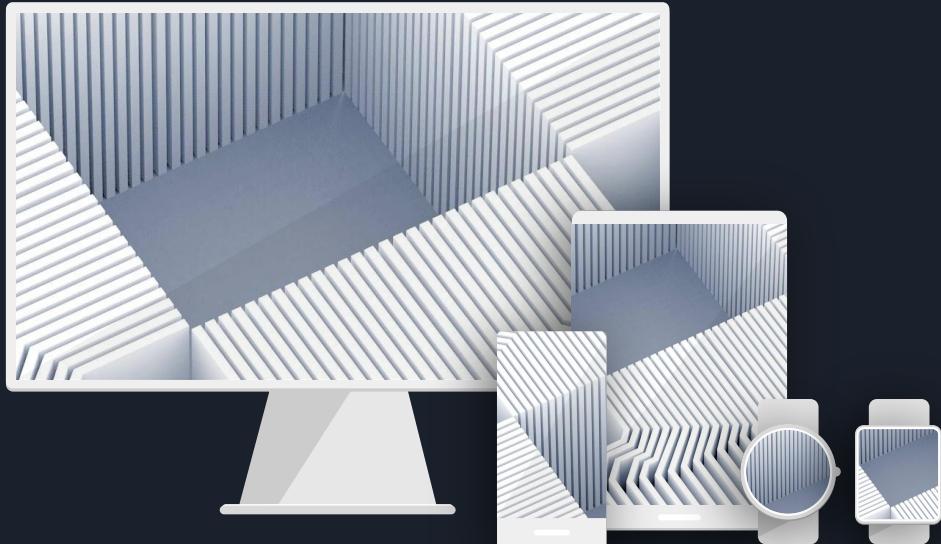


- I. What would I do differently?
 - A. Learn Server-side while learning JavaScript and React
 - B. Not JavaScript first
 - C. Further simplify code and include fewer design features
 - D. First ensure very that a basic design works
- II. What additional features would I include?
 - A. I wouldn't. Too much time.
 - B. My app is not perfect.
 - C. Build a better app first.



Video 3

Thank you!





Project Objective

Insert Text Here