Administrative Console – The Data Mine Corporate Partners Symposium

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About Pebblst
- ❖ The "Oprah's Favorite Things" for the rest of us
- ❖ Allows everyday people to share, save, and manage product/service recommendations with their network of friends ("pebbles")
- ❖ Good products and experiences are worth sharing; friends' recommendations are more valuable than online reviews

Project Goals
Improve user experience on the site, make the platform more secure, ensure cleanliness of data

Google Tag Manager – Data Enhancement
- ❖ Goals: Use GTM to track and extract user interaction data from Pebblst
- ❖ Areas of Research: GTM/Google Analytics, data analytics
- ❖ Tools: Google Tag Manager, Google Analytics
- ❖ Outcomes: Connect GTM onto the Pebblst webpage, get user information from users on Pebblst

Web Scraping – Data Enhancement
- ❖ Goals: Create a streamlined approach to ingest important life events such as birthdays and anniversaries
- ❖ Areas of Research: Web scraping, product design, data transformation
- ❖ Tools: Python, SQL, HTML
- ❖ Outcomes: Websites had security blocks to prevent proper web scraping

Chrome Extension – User Experience
- ❖ Goals: Create a web extension to easily add pebbles to Pebblst
- ❖ Areas of Research: Web scraping, product design, UX
- ❖ Tools: Python, SQL, HTML, CSS, Javascript, React, Figma, Adobe XD
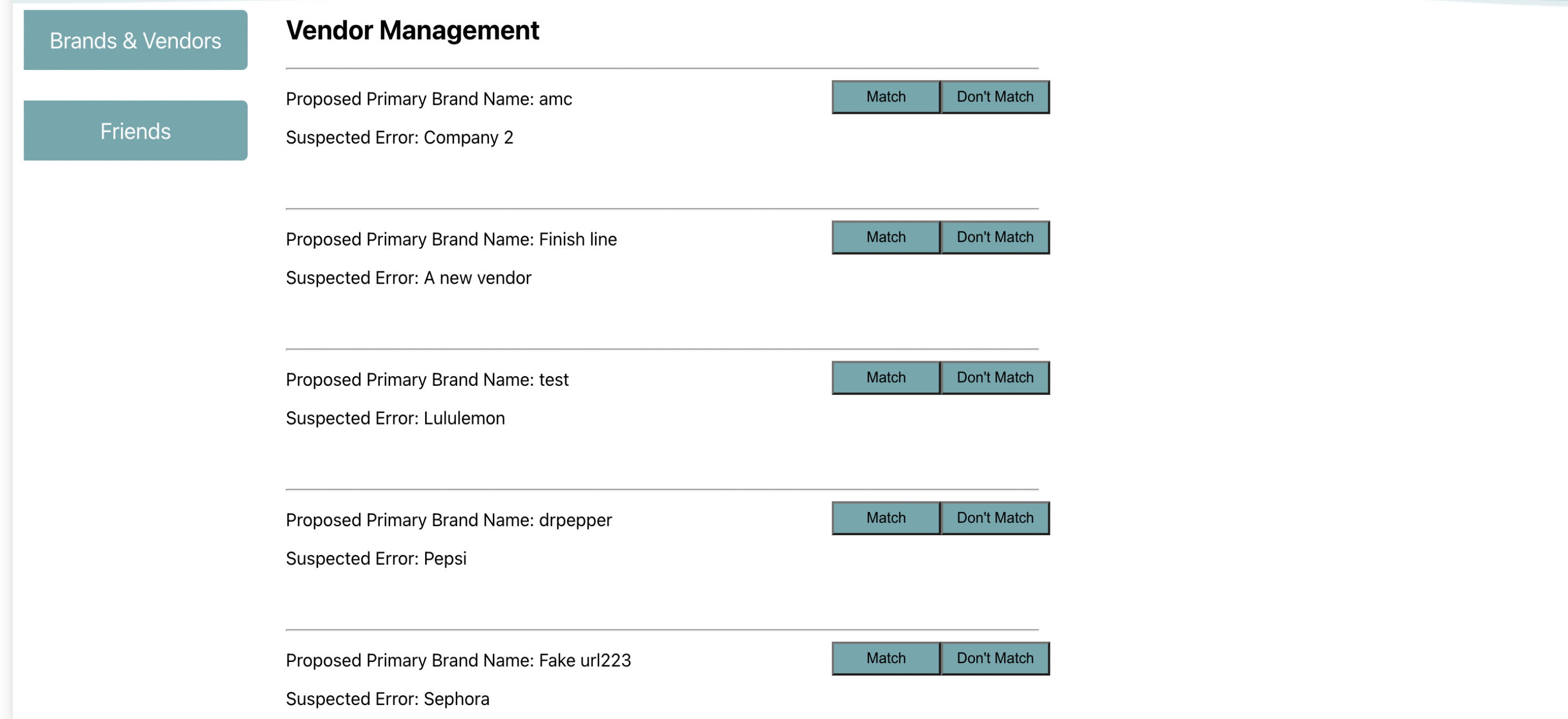- ❖ Outcomes: Completed UI prototype according to use cases

Administrative Console – User Experience
- ❖ Goals:
  - ○ Create an administrative console for verified Pebblst administrators to manage the application and monitor and cleanse pebble brand/vendor data in the database
  - ○ Allow consolidation of brand/vendor data by manually overriding brand names into a single entry on the vendor table in the database (match by characters and/or URLs)
- ❖ Solution: Get/Update functions to match and replace brand data + history tracking table to monitor changes
- ❖ Tools: React, Python, MySQL, AWS Services (Lambda, Gateway, Amplify, RDS)
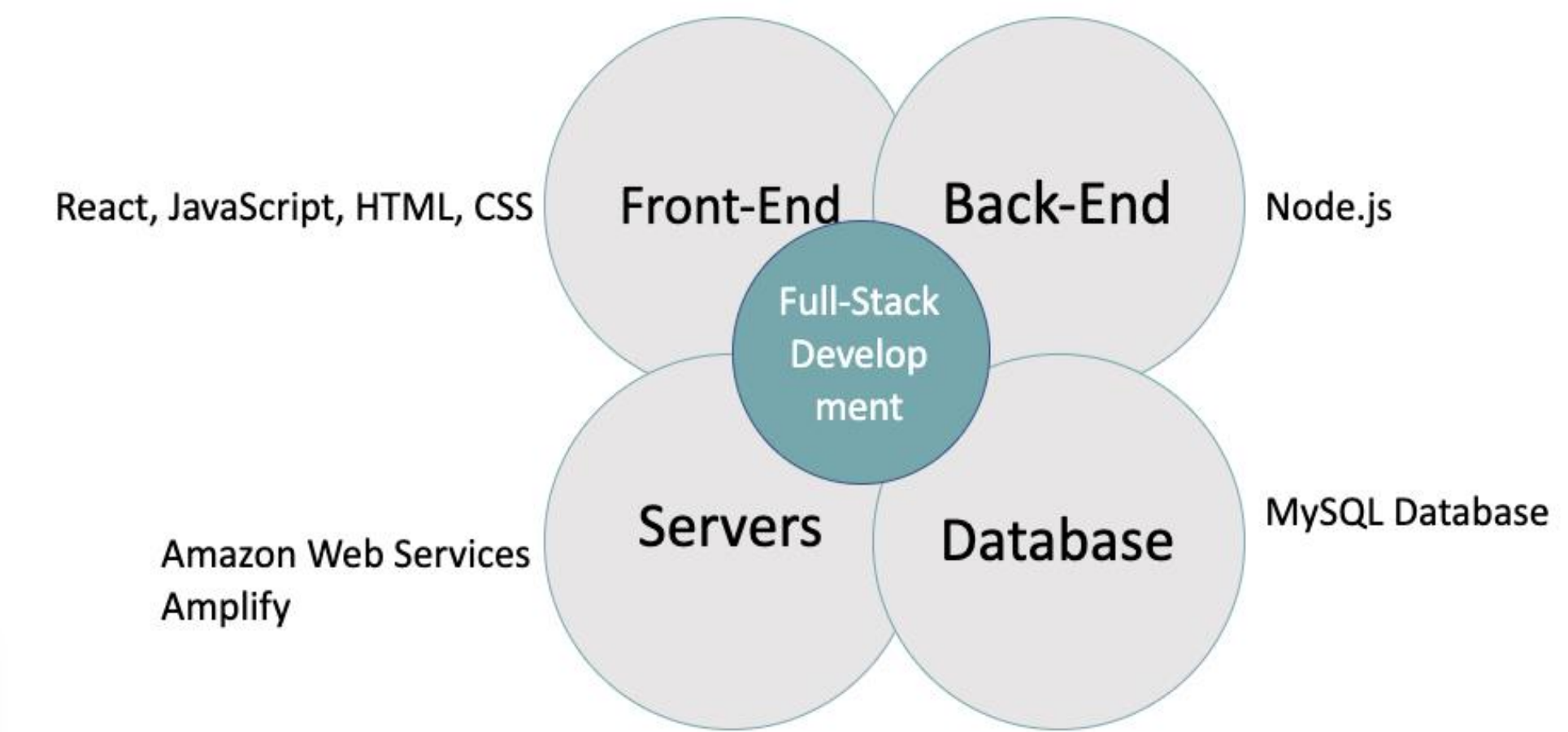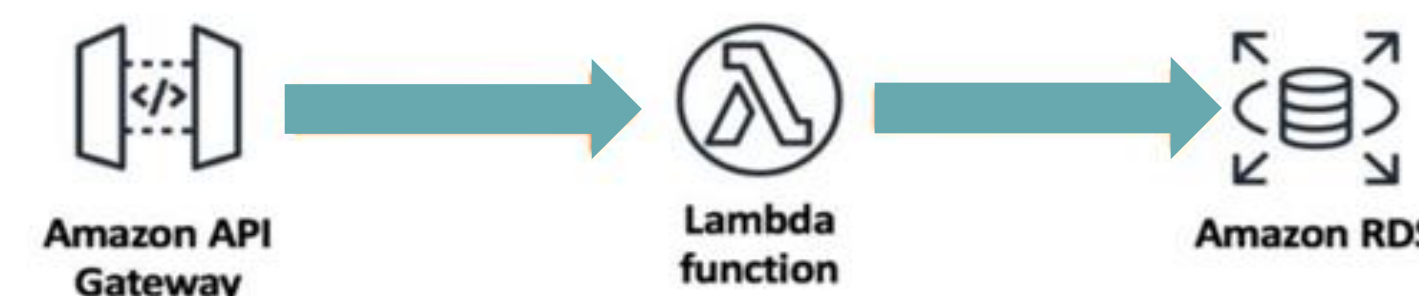- ❖ Outcomes: User experience, data cleanliness, and overall workflow will be greatly improved

Pebblst — Adminstrative Console

Brands & Vendors

Friends

Vendor Management

Proposed Primary Brand Name	Suspected Error		
Proposed Primary Brand Name: amc	Suspected Error: Company 2	Match	Don't Match
Proposed Primary Brand Name: Finish line	Suspected Error: A new vendor	Match	Don't Match
Proposed Primary Brand Name: test	Suspected Error: Lululemon	Match	Don't Match
Proposed Primary Brand Name: drpepper	Suspected Error: Pepsi	Match	Don't Match
Proposed Primary Brand Name: Fake url223	Suspected Error: Sephora	Match	Don't Match

Data Pipeline
- ❖ Pipeline between Frontend, AWS Gateway, and Lambda function
- ❖ Lambda Function: Handles request, searches and returns irregular data from database
- ❖ To update database: frontend generates UPDATE request with correct information to AWS Gateway --> triggers Lambda Function associated with update request
- ❖ Lambda Function handles request and updates database with correct information

Amazon API Gateway → Lambda function → Amazon RDS

React, JavaScript, HTML, CSS — Front-End
Node.js — Back-End
Full-Stack Development
Amazon Web Services Amplify — Servers
MySQL Database — Database

Future Goals
- ❖ Connect the Administrative Console to the rest of the platform
- ❖ Integrate the history tracking table with AWS pipeline
- ❖ Enable authentication for administrators to access the Admin Console
- ❖ Extend the functions of the current Administrative Console
- ❖ Start developing the Chrome Extension
- ❖ Create web scraping pipelines

Conclusions
- ❖ Successfully developed an administrative console that is used for database cleansing
- ❖ Gained valuable experience in full stack web development, web scraping, product design, data transformation, user experience, and soft skills

Pebblst

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