Vanier College

Faculty of Science and Technology

System Development

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Vinyl Vault: Final Report

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Project Aim

The main goal of our project was to create an interactive and user-friendly online vinyl records store, giving music enthusiasts a platform to browse and purchase records. By integrating modern technologies our aim was to deliver an e-commerce experience for users passionate about vinyl music.

Project Description

Our project is an Online Vinyl Records Store, where users can browse vinyls and can add items into their cart if they are registered and authenticated.

1. **User Authentication:**

   Users are able to create accounts and login, either with Google, Facebook, or email to ensure a personalized experience and keeping track of cart items. Firebase was used to handle authentication.

2. **Database Management with MongoDB**

   MongoDB was used to efficiently store and manage the data. This choice facilitated the transfer of data to the React frontend, ensuring a responsive and dynamic user interface.

3. **Integration of Music Records API**

   An external music album API was used to fetch up-to-date-information about vinyl records. This integration ensures that the store's catalog is current and reflective of latest releases and trends.

4. **Localization and Internationalization**

   Through the use of the react-i18next library, the online store is available in both English and French, while detecting the language of the user's browser to set as the default language.

Functional Requirements

User Authentication

- Users should be able to login and register

Browse and Search

- Users should be able to browse records based of different categories
- Users should be able to search for specific vinyls

Cart and Checkout

- Users should be able to add items to their cart and proceed to checkout

Localization and Internationalization

- Users should be able to choose their official language of choice

Non-Functional Requirements

Collaboration and Version Control

- Effective use of Git/Github for collaborative development

Compatibility

- Cross-browser compatibility to ensure the platform works on popular browsers

Usability

- Intuitive and user-friendly interface

Performance

- The loading time of the site should be at a minimum for effective user interaction.
- Efficient data retrieval and rendering

User Stories

1. As a user, I want to be able to browse vinyl records by genre in order to find new music within my favourite genres
2. As a user, I want to be able to search for specific vinyls

3. As a user, I want to be able to use my language of choice
4. As a user, I want to be able to place an order with an easy and intuitive payment process.
5. As a user, I want to be able to authenticate myself with the common platforms such as Facebook and Google

Test Cases

- First test case tests the login route for the api to see if authentication works, this test sends a post request with the email (test@test.com) and password (Bruce-12), the expected return value is the first name of the user (Justin).
- Second test case also tested the api this time to see if the search route works with all query params (q: Kanye, limit: 1). The test sound returns the title of his most popular album called the College Dropout.
- Lastly case 3 tests the trending route to see if the products return the correct values and the products are correctly sorted on the backend, although there are many trending albums we were only able to see the most popular one, we expected it to have a popularity value of 417556.

Roles and Responsibility

Tristan was mainly responsible for the frontend development as well as hosting the app in AWS. He also worked collaboratively with Justin on some of the backend components that were necessary to connect the client side to the server such as authentication and displaying the data from the API onto the frontend.

Justin was mainly responsible for developing the server, api methods, and backend components. He worked on some portions of the UI specifically the cart as well as the payment

integration in our app. Lastly, he also integrated firebase authentication and token verification of the backend to retrieve user information.