

Name

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Project: The Symmetry Podcast

Mission Statement

Design and create a website for a podcast, which includes the ability to listen to podcast audio, the ability to create and manage an account, and more.

Project Description

Overview

- Design and create a full-stack, MySQL-database-driven 9-page website for a podcast.

Front-End

- The website's front-end features include
 - 1) Home page: Company mission statement and links to other parts of the website.
 - 2) Audio page: Listen to episodes. The first two episodes are displayed to all users. Logged in users can view all episodes.
 - 3) Account-overview page: Allow users to perform CRUD operations on his or her account.
 - 4) Administrator portal: Allow an administrator to perform CRUD operations on all accounts, audio files, and messages submitted through the website's "contact" page.
 - 5) About page: Static page with information about the podcast and its hosts.
 - 6) Blog page: Static page with text and images.
 - 7) Log in page: Allows a user to sign in or link to the sign-up page.
 - 8) Sign up page: Allows a user to create an accounts or link to the log in page.
 - 9) Contact page: Allows user to send a message to the website.
- All pages are stylized using CSS.
- All pages are bootstrapped or otherwise imbued to function and display cleanly on any reasonably-sized screen.
- Dynamic pages use JavaScript to add/remove html, validate input, and other functions.

Database

- The data persistence is accomplished using a MySQL database which is normalized and contains between 4 and 7 relations (inclusively).

Back-End

- The back-end is written in Java using MVC patterning and Spring; it includes data transfer objects (DTOs) for the account, the contact message, and the mp3; data access objects (DAOs) for each DTO, which bridges the database and the service layer; a service layer, which validates data passing from the front-end to the database and vice versa; and a controller, which directs HTTP calls from the front-end to the appropriate service method.
- There is a full complement of jUnit tests for DAO and service methods.

Stretch Goals

- Display mp3 file types to website.
- Incorporate PHP to render elements that are consistent across the entire website (e.g., header, footer, navigation bar, etc.).