

# Coursework Report

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## 1 Title - YourMusicLib

## 2 Introduction

By examining a range of websites on the topic of web-app collections, in particular music collections I have decided to implement the most used functions when browsing a web-app music collection, which are sorting the data by Artist and Genre. The web-app is consistent of four web pages - two collection web pages, which sort the data by artist and genre, a sub page for every artist, which includes artist's albums. There is also a Dashboard page which can be only accessed by 'admin' user, that should give you the ability to add,edit and remove entries.



Figure 1: Main page

## 3 Design

The page designed is structured by two main sections **collections by artist** and **collections by genre**.



Figure 2: Sorted by artist



Figure 3: Sorted by genre

### 3.1 Navigation

This is the URL hierarchy for the website. The website uses a bootstrap template with an additional **custom.css** file, which customizes the page to my preference.

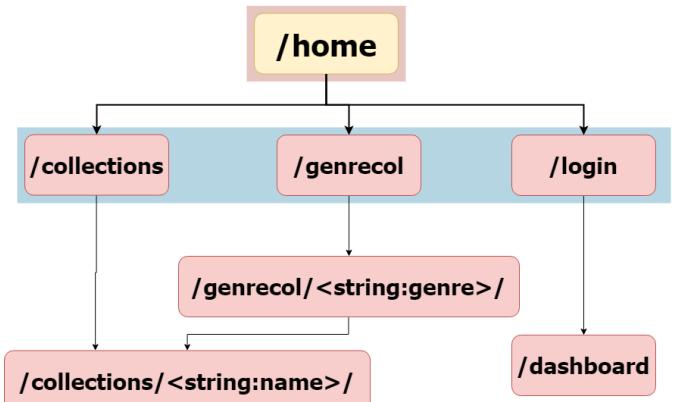


Figure 4: Navigation - URL hierarchy

### 3.2 Filtering

All the entries on both pages can be filtered by typing text in the text box which filters the entries using jQuery - each time the key on the keyboard is lifted it performs search on a unordered list by the input in the search box. This function does not refresh the page.

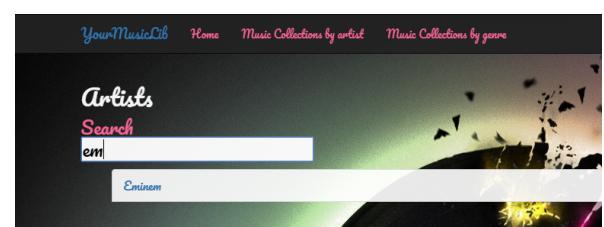


Figure 5: Filtering

### 3.3 Login page

In the login page there are two boxes for email and password. Login information is checked against a **json** file for a match. There are only preregistered users which are admins and can edit the data.

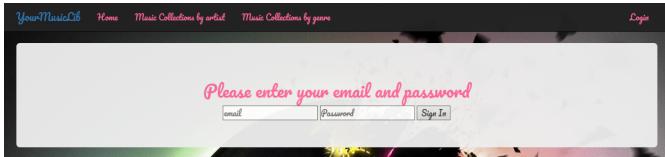


Figure 6: Login page

#### 3.3.1 Login errors

If invalid credentials are given an error message pops up. If a regular user tries to access the **Dashboard** where you can add entries a flash message appears and redirects them to login page. This is achieved by making use of FLask's flash messaging and redirecting.

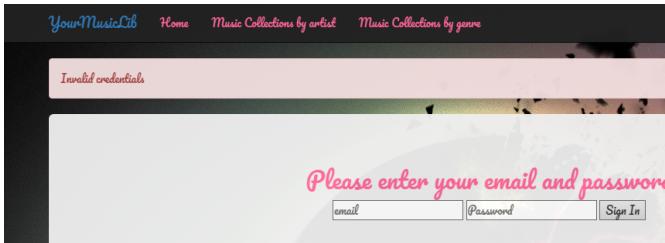


Figure 7: Invalid credentials

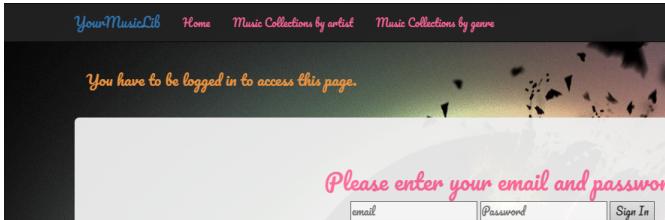


Figure 8: Access denied

### 3.4 Page not found - error 404

If the page requested does not exist the user is redirected to a custom **404** page.

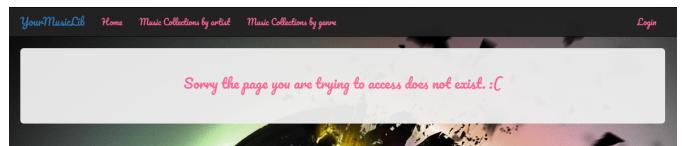


Figure 9: Error 404 - Page not found

## 4 Enhancements

There is a lot more that can be done to the page. Given more time I would definitely add the ability to register new users and each user would have different level of access. A nice function to be implemented would be that every user would have the ability to add artists or genres to their own collection. An improvement that I could make in future would be adding the artwork to each album making it more pleasing.

## 5 Critical evaluation

I have built a basic music collection app, which displays the data quite nice and the filtering works really good, making it easy to find the entry you want. The login data is stored in **json** file, however the password and password from the login request are not encrypted, which poses serious security risks. The other function that is only on presentational level for the moment is the ability to add, edit and remove entries. This is due to the fact that I am not really familiar with the **Python** language and I have faced quite the difficulty working with lists and dictionary files.

## 6 Personal evaluation

I think I have performed reasonably well on this assignment, given the fact that the tools we could use were somewhat restricted. I have found a couple of challenges trying to implement some functions using the Python language as I have never coded in Python-Flask before and my knowledge of it was none existent. Through extensive research and lots of videos and articles on Python-Flask I have managed to produce a web-app to the best of my abilities in the time frame provided. In future I would definitely try and start working on the assignment sooner given the fact that I have no experience in the programming language for the assignment. However there is always room for improvement and saying that one have performed good won't be 100

## References

Materials used: **workbook.pdf** Flash messages:

<http://flask.pocoo.org/docs/1.0/patterns/flashing/> Flask:  
<http://flask.pocoo.org/docs/1.0/>  
Picture used in web-app:  
[https://c.wallhere.com/photos/69/75/vinyl\\_digital\\_art\\_colorful\\_artwork\\_music-224506.jpg!d](https://c.wallhere.com/photos/69/75/vinyl_digital_art_colorful_artwork_music-224506.jpg!d)