Big Binary Brand

TrackSpot

Spring 2018

1. Overview

Our application TrackSpot allows regular users and critics to post reviews for songs and albums. Users can also add artists, albums, and songs to the platform in order for others to access and review them. For each album and song, our app aggregates reviews separated into regular user and critic categories, so that a viewer can easily view discrepancies in review scores. Additionally, our app shows an overview of recent items on the front page, and allows users to search everything in the system. Our app is innovative since it condenses many reviews for music into a single score. In addition, our platform allows professional and amateur reviewers to post or mirror their reviews into a single location, instead of the current situation in which reviewers post reviews to many different sources.

2. Team Members

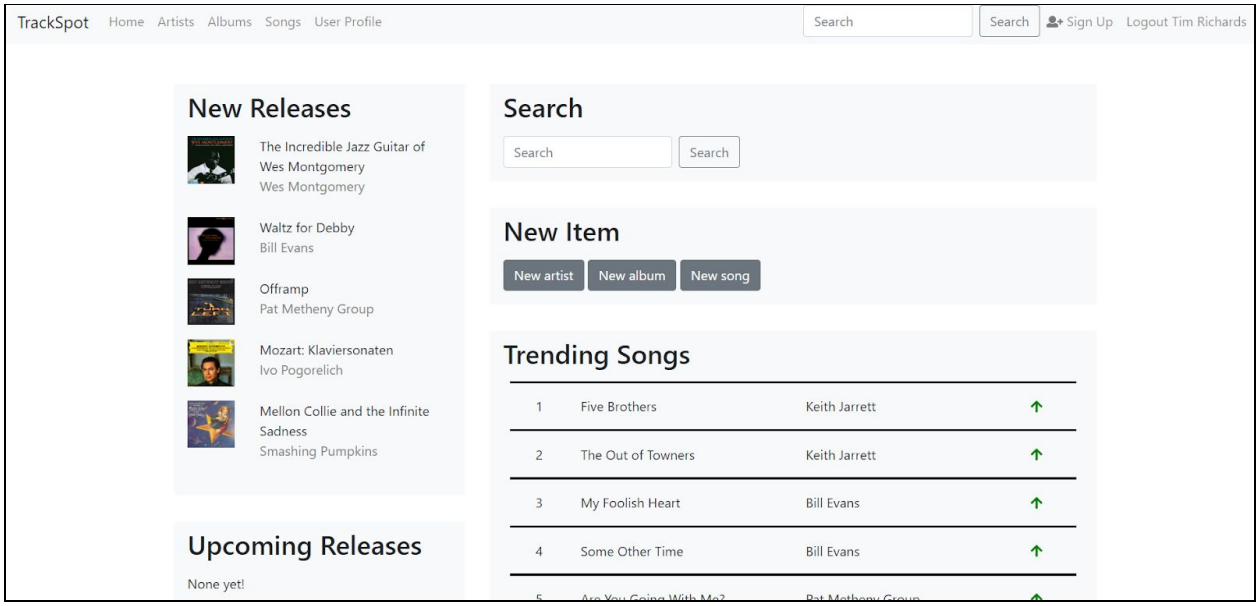
John Sweeney, Tommy Do, Aric Huang, Cameron Scigliano, Dan MacDonald, DongWon Park

3. GitHub Repository

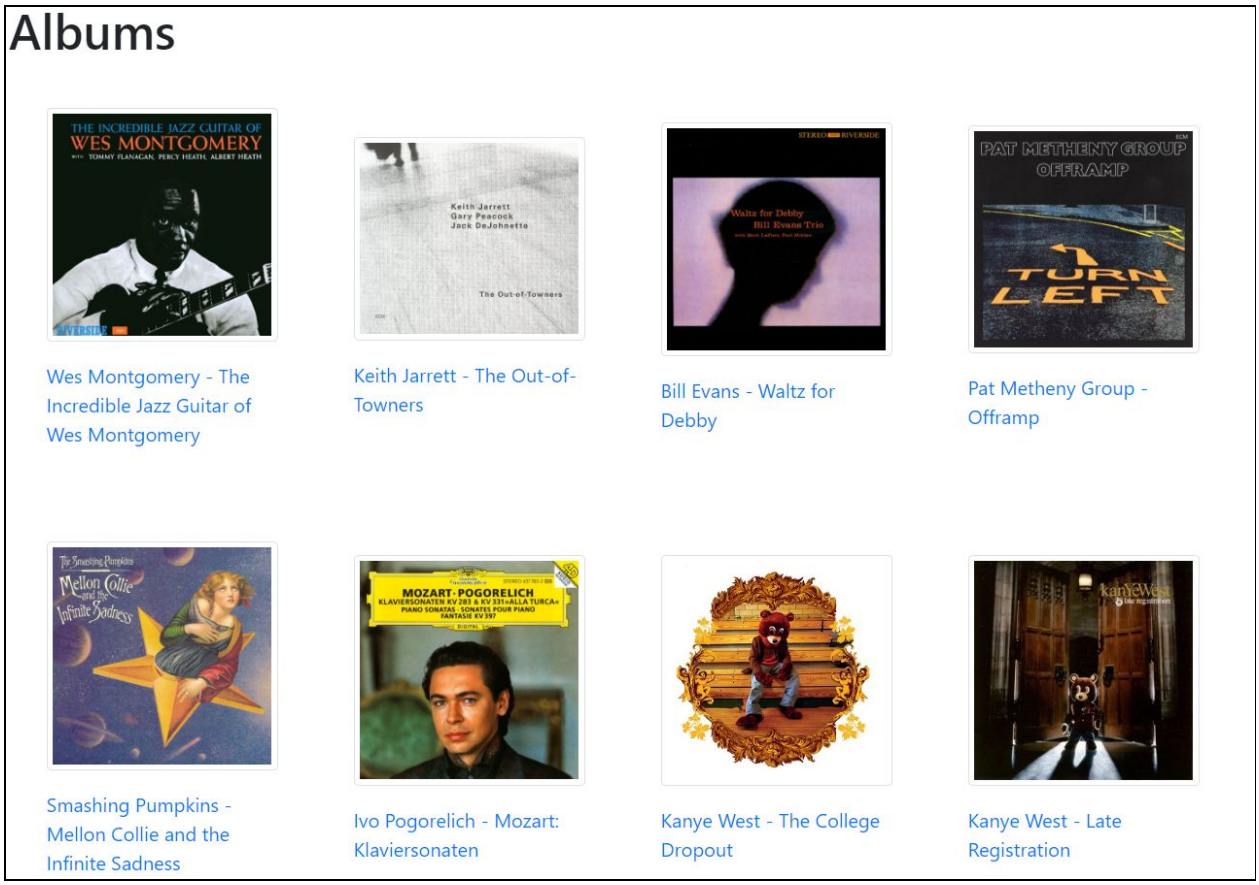
https://github.com/jswny/trackspot

4. User Interface

Our UI basically has 5 main sections including Home, Artists, Albums, Songs and User Profile.



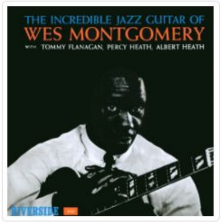
index() in *views.py* (Home view) - This is the main page of our app which shows summarized information including New Releases, Trending Songs, Upcoming Releases and Search feature.



album_main() in *views.py* (Album_main view) - This view shows all current registered album in the database and shows its individual thumbnail.

The Incredible Jazz Guitar of Wes Montgomery

Wes Montgomery



Overall Score 93.8 / 100

The Incredible Jazz Guitar of Wes Montgomery is the fourth album by American jazz guitarist Wes Montgomery. Most of its tracks are considered to be the best examples of Wes Montgomery's two distinguishing techniques - "thumb picking" and the use of octaves.

Song List
1. Airegin
2. D-Natural Blues
3. West Coast Blues

Write a Review

Critic Score : 94.0 / 100

Review	Song	Review	Score
I'm also a critic. I like this song, too.	D-Natural Blues	mason	94

User Score : 93.7 / 100

Review	Song	User	Score
Love his thumb tone!	D-Natural Blues	john_doe	100
Airegin? Nigeria? Good interpretation.	Airegin	bob_smith	89
I'm a critic. This song is good.	West Coast Blues	john_doe	92

album in *views.py* (Album view) - This view shows detailed information of an album with aggregate score of reviews and also each critic/user score and reviews as well.

Wes Montgomery

Albums

Album	Critic Score	User Score
 The Incredible Jazz Guitar of Wes Montgomery	94	94

Bio

John Leslie "Wes" Montgomery (March 6, 1923 – June 15, 1968) was an American jazz guitarist. He is widely considered one of the major jazz guitarists, emerging after such seminal figures as Django Reinhardt and Charlie Christian and influencing countless others.

Top Songs

 D-Natural Blues

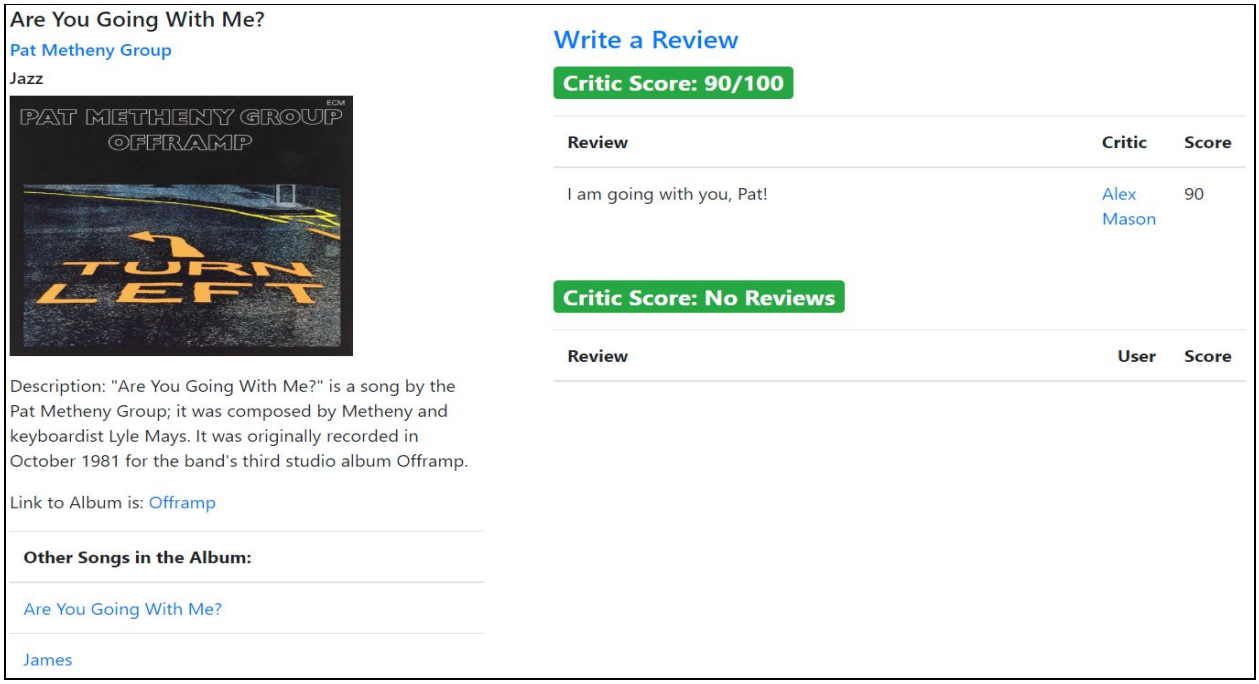
Related Artists

 Wes Montgomery

 Bill Evans

 Pat Metheny Group

artist() in *views.py* (Artist view) - The Artist view shows the information of an artist including name, profile picture, bio, top songs and related artists.

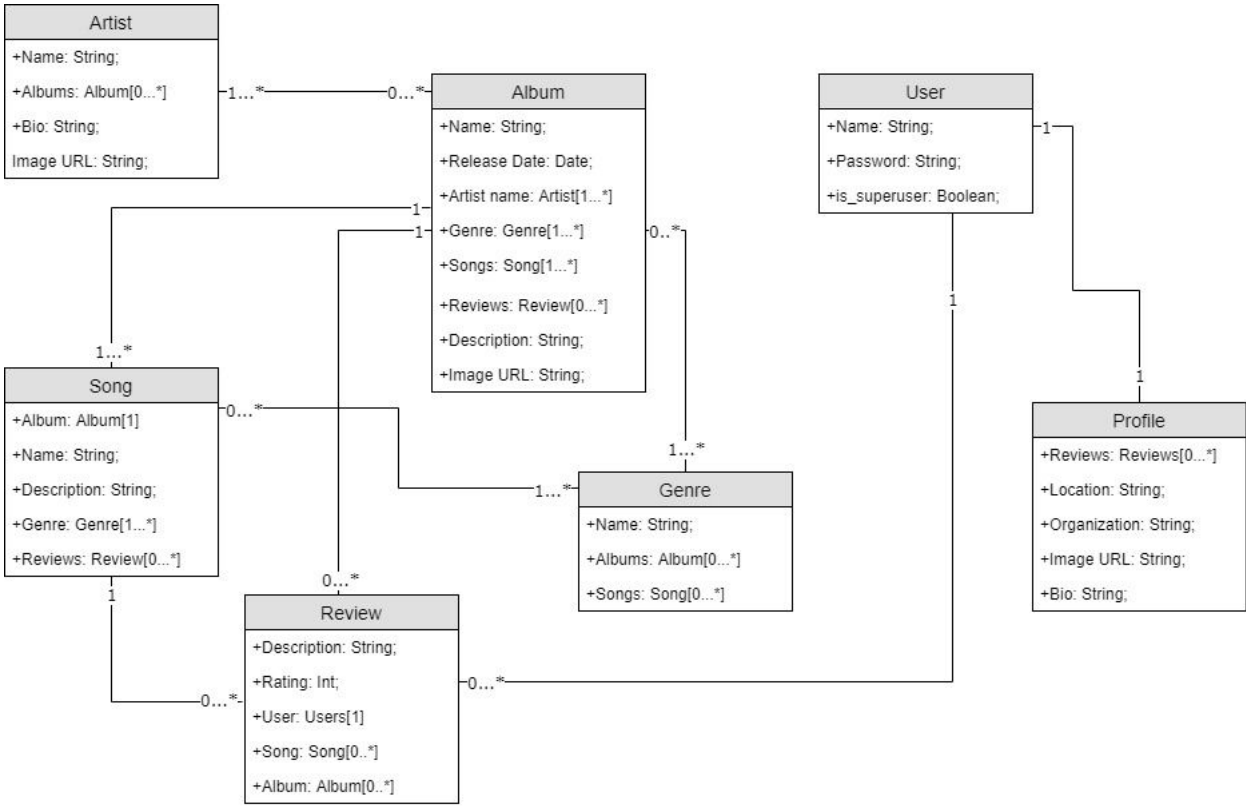


song() in *views.py* (Song view) - The Song view shows a detailed information of a song including its critic/user reviews and a description. This shows also another songs in its associated album.

user() in *views.py* (User view) - The User view shows critic's or user's information with his/her picture, bio, location and associated reviews in the database. In this page, all reviews the critic or the user wrote shows up algother in the list.

5. Data Model

For our Data Model, we chose to create six main models. The User model represents both critics and trackspotters along with attributes such as username, password, and has an associated profile. Profiles contain our own user info, such as reviews, description, location, and profile pictures. Reviews would have its own attributes and belong to a user and song/album. An Album would have a number of songs and reviews and have its own attributes. Songs would have its attributes and reviews. An Artist would have albums along with their own attributes. And a Genre would be assigned to songs and albums.



6. URL Routes

Url Mapping	Description	Permissions/Authentication
trackspot/album/	List of albums	None
trackspot/album/<int:pk>	Details about a specific album	None
trackspot/artist/<int:pk>	Details about a specific artist	None
trackspot/song/<int:pk>	Details and reviews for a specific song	None
trackspot/user/<int:pk>	Details about a specific user	Need to be logged in to have access to “User Profile”
trackspot/login/<int:pk>	Login page	
trackspot/user/edit_trackspotter	Form to edit profile page of the logged in regular user	Need to be logged in
trackspot/user/edit_critic	Form to edit profile page of the logged in critic	Need to be logged in
trackspot/album/create/	Form to create a new album	None
trackspot/album/<int:pk>/update/	Form to update an albums details	None
trackspot/album/<int:pk>/delete/	Page that requests confirmation for deleting an album	None
trackspot/song/create/	Form to create a new song	None
trackspot/song/<int:pk>/update/	Form to update a song’s details	None
trackspot/song/<int:pk>/delete/	Page that requests confirmation for deleting a song	None

trackspot/artist/create/	Form to create a new artist	None
trackspot/artist/<int:pk>/update/	Form to update an artist's details	None
trackspot/artist/<int:pk>/delete/	Page that requests confirmation for deleting an artist	None
trackspot/album/<int:pk>/reviewcreate/	Form for creating an album review	Need to be logged in
trackspot/song/<int:pk>/reviewcreate	Form for creating a song review	Need to be logged in

7. Authentication

For the authentication, there is a login/logout button accessible from any UI view of the project. When login is clicked, it takes the user to the classic login page where they can input their information and login, or recover a forgotten password. When logged in, a user is identified as a certified critic or a casual user. The only special permission associated with this difference is certified critics can change the organization they are associated with. Depending on which kind of user you are logged in under, the user can create a review for a song or an album under that account and it will be associated with other reviews of the same user type. The user can then log out from any page.

8. Team Choice

For our team choice component, we decided to implement search. Our search feature required a completely new URL route and corresponding view, in addition to hooking up the various search forms to this new route. The search feature searches across all models, and displays all results categorized by type. It also handles a search with no results, and a search with no results for multiple model types.

9. Conclusion

Overall, our team had a very positive experience throughout creating TrackSpot. However, there were many areas where we struggled. First of all, our initial data model had users and critics as inheriting model classes. This made querying things very difficult and made it hard to discern between the two types of users. Our later solution with a single user model, and groups for the

different types of users was much more optimal. Another difficulty that we had was implementing forms. For example, our review form had to always be associated with the current user upon submission. This was very difficult to implement since the current user was hard to access in the view, and we had to figure out how to add a custom field into the model after taking the information in from the form. Finally, our last difficulty was working together on collaborative parts of the project. It was difficult to coordinate our work when many parts of the project which individuals were doing required others to finish their work first. It was difficult to figure out what needed to be done first, especially when the project changed as we implemented certain things.