

Meetify

Midterm Progress

CS Senior Design 2020

Group Members

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Project Purposes & Goals

In this day and age, there are countless ways to **meet people** and **listen to music** online, but **very few places to do both!**

Thus, our team wanted to create an app to combine these concepts, allowing users with **like music interests** to meet.

Although some vaguely similar apps are out there, we have found them to be **unpopular** and/or **no longer supported**. We think that, by tying it to the **Spotify** music library, we will be able to reach more people and create a vast network for people to meet!

Project Abstract

What is Meetify?

- A cross-platform **application** and **website**
- **Matches users** based on their **musical tastes**
 - Will allow users to then **message** each other in-house
- Users' musical tastes are pulled from their **Spotify** accounts
 - Thus the name "Meetify" :)

How will it work?

- **MySQL** database
- **Python**-based server (via **Django**)
- **HTML/JS** web-based application (via **React**)
 - Written as website; distributed to all major platforms

User Stories

As a Meetify user, ...

- ... I want to **match with other users** based on our musical tastes, so that I can meet people that have similar music tastes to my own.
- ... I want to be able to **see what musical similarities caused me to match with another user** and a “**playlist intersection**” of our Liked Songs, so that me and my match have concrete similarities we can discuss.
 - A “playlist intersection” is a playlist containing only songs found on both input playlists.
- ... I want to be able to use the service to **communicate with users I match with**, so that I do not need to give out my personal contact info.

User Stories (cont.)

As a Meetify **user**, ...

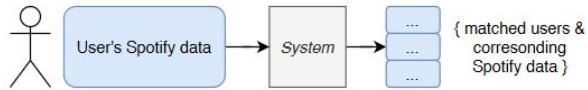
- ... I want **other users' profiles** to show some **public information** (unrelated to music), so that I have some general information about my matches.
- ... I (optionally) want to be able to **filter matches based on proximity**, so that I can match with people close to me if I am looking to meet people in person.

As a Meetify **developer**, ...

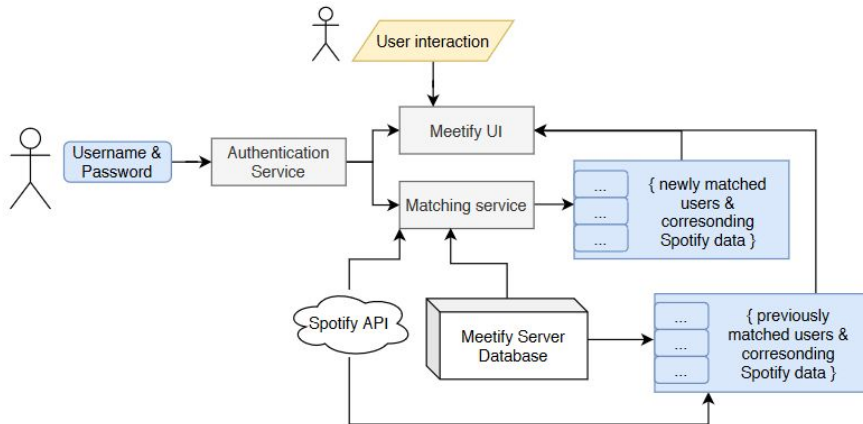
- I want to be able to **see what musical similarities** caused any two anonymous users to match, so that I can know that the algorithm is **accurate**.

Design Diagrams

D0



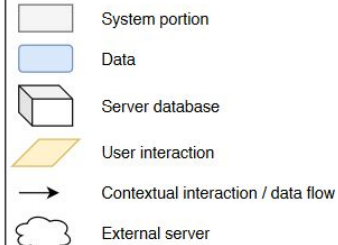
D1



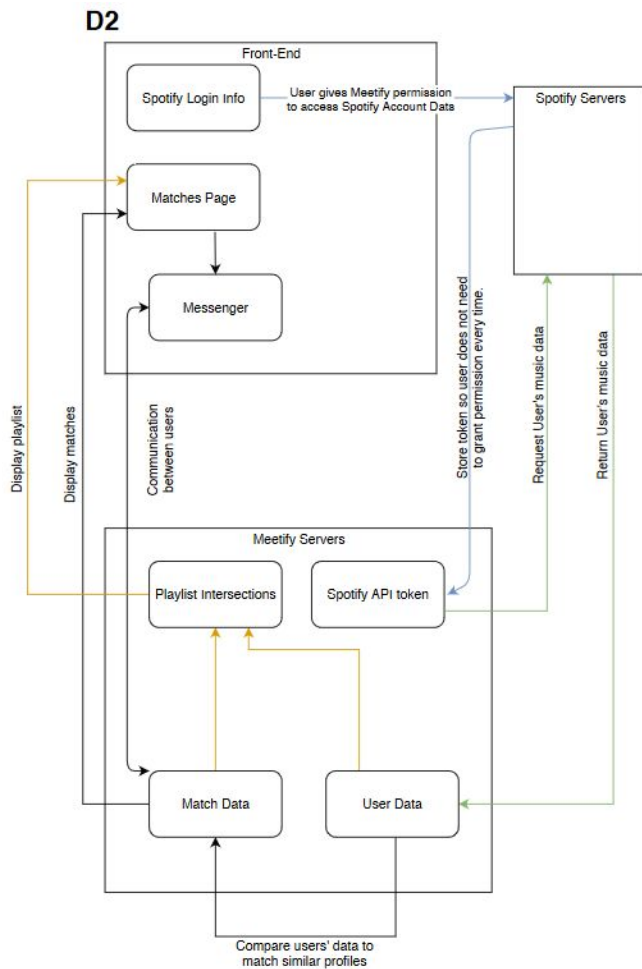
Meetify Diagrams

Goal: to create a service that allows user to match with other users based on music interest, using data from the Spotify API.

D0 & D1 Legend






Design Diagrams (cont.)



Meetify Diagrams

Goal: to create a service that allows user to match with other users based on music interest, using data from the Spotify API.

D2 Legend

-  System portion
-  Data
-  Contextual interaction / data flow (identical colors imply corresponding inputs/outputs)

Major Project Constraints

Time

- **Need to find time** between classes and looking for full-time jobs
- **Limit** and/or **prioritize** features

Scope

- Everyone understands their **role** in the project
- **Those roles may change based** on changes to the **scope** of the project

Technical Experience

- Will be using several **unfamiliar technologies/skills**
 - Django, React Native, JavaScript, Spotify, Encryption, Database management, and server deployment
- Need to spend time learning these, which affects how long the overall project takes

Major Project Constraints (cont.)

Legal

- Bound to the **Spotify API's Developer Terms of Service**
- **Cannot make money** off of our service without permission from Spotify

Security

- **Personal data** (passwords, names, Spotify data)
- Need to keep our application **secure** since it interacts with the user's Spotify account
- **Location services** need protected

Social

- Guided by the goal of **bringing people together** based on **music tastes**

Major Project Constraints (cont.)

Environmental

- Deployment to **different platforms**
- Server located in Rob's place of residence

Diversity and Cultural Impact

- More of “**expansions**” rather than “constraints”
 - Support **multiple languages**
 - Support **accessibility features**
 - Supporting **other countries** (e.g. certain songs may be unavailable in certain countries)

Progress

- Created **MySQL database** with prototype tables and stored procedure for intersecting two users' liked songs.
- Created **Django server** with python code that authenticates a user's Spotify account, saves their userID and the songIDs of their liked songs to our database, and receives requests for Liked Song intersections from the front-end.
- Created **React front-end** that requests an intersection of Liked Songs and outputs them to the user.

Term Goals

Expected Accomplishments for the end of this term:

- Migrate our database, Django server, and web-based application to our own server to avoid cloud expenses.
- Link our application to our domain name, “Meetify.tech”.
- Fully design and implement the database structure.
- Add support for Meetify logins.
- Create an algorithm for comparing Spotify data of users and matching them accordingly.

Division of Work

Milestone	Date	Total Effort	Dustin Effort	Jake Effort	Rob Effort	Completed?
Stack Setup	10/4/20	24	8	8	8	Yes
Create Playlist Intersection	10/4/20	1		1		Yes
Clean Up Repo	10/4/20	1	1			No
Effort Matrix	10/6/20	1	0	0	0	Yes
Setup Server	10/9/20	3			3	No
Save Intersection as Playlist	10/23/20	3			3	No
Design Database	10/23/20	3	1	1	1	No
User Account Login	10/28/20	15	5	5	5	No
Implement Database Design	10/30/20	2			2	No
Search for Other Users	11/12/20	11	8	3		No
User Location	11/13/20	9	3	3	3	No
Matching Algorithm	11/20/20	24	8	8	8	No
Message Service	12/18/20	15	5	5	5	No
Final Deliverable	2/28/21					

Expected Demo

- Talk about the idea for Meetify and how it works.
- Explain our original goals for the project and whether we met all of them.
- Show the design of our database and what kind of information we keep.
- Run a demo on the front end where we:
 1. Create a new user account.
 2. Grant permission for Meetify to access the user's spotify account.
 3. Search for matches with existing users.
 4. Display the matches, the profile information of the matches (including location), what made the users match, and the "Playlist Intersection" of their Liked Songs.
 5. Start a text conversation with one of the matches.
 6. Create a Playlist Intersection with someone I didn't match with, but whos Spotify username of userID I know.