

CS411 @ BU

LAB 005

PITCH



- CLASS PROJECT -



4 REQUIREMENTS

Anything you can think of that uses these





○ OAuth

○ 2 APIs

○ Database

○ Front/Back End

ASSIGNMENT 1 - PROPOSAL

COME UP WITH TWO IDEAS

SUBMIT REPO TO GRADESCOPE

DON'T STRESS ABOUT TECHNICALS

MUST USE

USE GIT

- DATABASE
- TWO PUBLICLY AVAILABLE APIs
- THIRD PARTY OAUTH
- DECOUPLED ARCHITECTURE

SPECIFICS

1. **It must utilize a database.** A simple way to meet this requirement is to require a user to store profile information in the database. You'll also be using it as a cache.
2. **It must correlate at least two publicly available data sets via API from the Internet.** Examples might be weather/climate data from NOAA, crime statistics from the FBI, and so on. A great place to get started is https://apigee.com/providers?apig_cc=1, which is a repository of datasets, and Postman's list at postman.com. Another good place to search for data is <http://data.gov>. The City of Boston also has data available at data.cityofboston.gov. Your application must correlate these data sets in some way; for example, pull a user's playlist from Spotify and correlate it with a feed that has concert dates to alert the user of bands that they like that are playing nearby. Use of the Google Maps or Geolocation service does **not** count toward your two APIs (it's a few simple lines of code, usually).
3. **It must use third-party authentication**, for example logging in with Google or Facebook using OAuth.
4. **It must have a decoupled architecture**, similar to what we looked at in class during the 'dogfooding' lecture. The implication is that you'll need a front end and a back end, and the two will communicate via a RESTful interface. It's too early to discuss technologies, but this does mean that there will be JavaScript in the front end. Since the back end is responding to requests and just returning data, it doesn't necessarily need to be in JavaScript...Python, Java, PHP, and so on would work.

DONHAM'S IDEAS

Transfer playlists between music services such as Spotify and Apple Music.

Determine whether bus, T, BUS, walking, or Uber/Lyft will deliver you to your class fastest.

Use facial recognition and analysis, replace faces in a photo with emoticons depicting their current mood.

Create a menu / recipe based on calorie or dietary requirements (using food-related APIs), then hit Spotify to return a playlist that matches the 'style' of dish and its cooking time.

Based on playlist histories, suggest upcoming concerts / events that you might like.

Grab a user's Twitter timeline, send it to Watson for sentiment analysis, then create a Spotify playlist to match (or change) their mood.

Find the safest running routes near you based on crime statistics, and generate a playlist for your desired running time.

Find the nicest bathroom near you within a radius.

Find the least expensive flight for a sporting event that you'd like to attend.



PITCH YOUR IDEA

*A few teams are either newly formed or have new members, and they can defer their pitch until next week.

OTHER NOTES



QUIZ 3 - DATA

2/25 @ 11PM



SEE YOU NEXT WEEK

GIT 101