# COM S 309 Project Proposal

## Team Competency:

| S.No. | Team Member |
|---|---|
| 1 | Kaden Berger |
| 2 | Sullivan Hart |
| 3 | Pranava Sai Maganti |
| 4 | Peter Yehl |

## Project: Riff Radar

- **Goal:** Help organize local music scenes. Users can find, attend, or create concerts.
- **Description:**
    - Currently, local music scenes are disorganized. If a band is not large enough to book a stadium or other large concert-venue, their audience is restricted to word-of-mouth and social media. Riff Radar would give a platform to individuals who want to host a concert without a massive advertising budget. Riff Radar would also be a platform for individuals looking for live music either in their town or across their state or nation. This app will allow them to search for shows of all sizes, removing the barrier of entry to concert hosting.
    - Our app will have four public user classes: *Attendees*, *Guests, Bands*, and *Venues*. Depending on the type of user, they will be able to explore different features on the app (attendees can search for concerts, bands can find venues that are open to hosting, venues can manage listings and connect with bands looking for bookings). Also, our app will have one private user class: *Admin*. This class will have access to management features for the app.
    - *Attendees* will be able to find tickets that have been created on the app and concerts on Ticketmaster. The search can be filtered by a variety of parameters. They can save the concert for later, view the bands attending, get directions, and purchase tickets for app-created concerts. Concerts hosted on ticketmaster will redirect them to ticketmaster.
    - *Guests* will be able to explore concerts, but can't save any concerts.
    - *Bands* will be able to find Venues near them. They will also be able to customize how their profile is shown to the world. They can also chat with the Venues they find.
    - *Venues* will have the same features as Bands, but they will be shown Bands instead. They will also be able to create concerts.

- **Language/Platform/Libraries:**
  - **Language**: Java
  - **IDE**:
    - Front-End: Android Studio & UI Design: *draw.io*
    - Back-End: IntelliJ
  - **Build Tools**:
    - Front-End: Gradle
    - Back-End: Maven
  - **Documentation**:
    - Front-End: Javadocs
    - Back-End: Swagger-UI
  - **Other Important Technologies**:
    - Git, Gitlab
    - *Front-End*:
      - Volley
      - Android Intents
      - Android Activities
      - Websockets
    - *Back-End*:
      - MySQL & MySQLWorkBench
      - H2 & H2-Console
  - Follow all the other COM S 309 recommendations
- **APIs:**

| S.No. | Feature | API |
|---|---|---|
| 1 | Find already existing concerts | Ticketmaster |
| 2 | Address to Coordinates (and visa versa) | Google Geocoding |
| 3 | Map Display | Google Maps |
| 4 | Directions | Google Directions |
| 5 | OTP Verification | Verification email sent through backend server |
| 6 | Preview a band’s music | Spotify |

- **Complexity:**
    - This project is highly scalable. Many features have been added or removed to make an appropriate complexity depending on time availability.
    - Because of the three perspectives, the app will have a lot of functionality and a lot of possibilities.
    - Mobile development is new to all team members.

- **Developers:**

| **Front-End** | **Back-End** |
|---|---|
| Pranava | Kaden |
| Sullivan | Peter |