Senior Project Proposal

By Alizée Wickenheiser

- What do I want to build?

    An OS X app that adds to the experience of listening to foreign music by displaying visible lyrics in realtime.

- What technologies am I going to use?

    Swift, Objective C, Scripting Bridge (Get iTunes data), Javascript, NW.js, Node.js, MongoDB (User details, market data, lyrics data from lyrics builder when user is done transcribing music, …), JSON, WebSockets, Express, Stripe and hosted on Google Cloud with Ubuntu.
    Note: I plan to use open source npm modules to make certain development tasks simpler when I get to them. Some npm modules I can think of that i'll be using are bcryptjs (security for hashed passwords), socket.io (websockets lib), mongoose (mongodb lib), stripe (payment service), and others that I use daily for personal projects. I'll probably use a socket.io swift library as well…

- What do I hope to learn?

    Goal is to strengthen my development knowledge of latest emerging technologies in the Javascript world. I plan to learn by trial and error with producing reusable code. I don't plan to master all the technologies listed but learn the basics to produce a working final project.

- A list of features

    1.   User Management (3 points)
        a. Login
        b. Register
        c. Profile (Ex. User details & user image)

    2. Cashier (5 points)
        a. Add funds to account
        b. View current funds

3. Market (7 points)
   a. Spend funds
   b. Request music to be translated.
   c. View translation requests for music.

4. Lyrics Player (10 points)
   a. Lyrics shown as music plays
   b. Normal player mode
   c. Mini player mode

5. Lyrics Builder (10 points)
   a. Get music info from iTunes
   b. Control music playing of iTunes
   c. User can add lyrics to music
   d. Open, Save, Publish file
   e. Mode settings for type of file

Grading Scale:

   A -> 30-35 points

   B -> 25-29 points

   C -> 20-24 points

   D -> 15-19 points

   F -> 0-14 points

Total points possible: 35