**Design of AutoDJ**

AutoDJ serves mainly as a soundcloud player and queue. The problem with just using soundcloud is that there is no way to queue up tracks on the fly like there is in an app like Spotify. Spotify however, has no visual representation of current song queue and so my app solves both the problem of queueing the problem of visually representing the queue. AutoDJ(whose name derives from the auto mixing feature that was later scrapped) works mostly on the soundcloud api. The app itself is an object that inherits the event based animation class from our pervious assignments. The song that is currently playing is saved under the variable nowPlaying and the queued tracks are in a list called trackList. The tracks are all stored as a class called PlayerTrack which has methods to either draw it in the queue or on the player screen, download the track and artwork, and analyize the downloaded artwork for the most common color. The artwork analysis works through PIL and adds a nice visual feature to both the player screen and the queue, coloring the player background and the song queue box the color of the most common color in the songs artwork. Reordering the queue is fairly straightforward and is done through dragging and dropping the queue boxes as most people would intuitively think to do. The player controlls are pretty standard, I made sure to have the play and pause button be one button that switches between play and pause as this is what most modern music players have(soundcloud, spotify, windows media player, etc.). The progress bar is a rectangle within a rectangle where the width of the inner rectangle is determined through the variable counter which is an on going counter the app has running to check if the duration of the track has been exceeded(so that the app knows to move on to the next track).

**Influential Apps/Apps with similar purposes**

**Juk box** – Juk box is a 15-112 term project that is written to be used in a web browser. This app is mainly designed around using youtube for the source of songs instead of soundcloud which is what my app uses. The queue boxes are similar and was the main inspiration I took from Juk box.

**Spotify** – I mainly looked at spotify as a music player that had queing functionality. I borrowed some UI elements, mainly the the play and pause being one button that toggles and the album art being displayed about the controls. The problem with queueing songs in spotify is that it works well for individual use in that you have to remember which songs are queued up and its not possible to rearrange. By displaying the queued tracks and making it easy to rearrange them, I made my app more group friendly(ideal for situations like a part for example). Also spotify doesn't give you recomendations based on the music you are currently listening to or make it easy to queue up recomendations.

**Soundcloud** – AutoDJ is built largely around soundcloud and the soundcloud api. The problem for trying to use soundcloud for the same purposes you would use AutoDJ is that soundcloud lacks any sort of queueing features.