**Peter Knibbe Individual Project**

Documentation of Peter Knibbe Individual Project Concept, Problem Statement, Plan, Screen Design, Application Flow, and other relevant artifacts.

**Project Design**

**High Level**

The project will include a database of users and playlists. It will allow a user to log in and listen to a playlist in order or (optional) shuffled. It will also provide an easy way to create, edit, and delete a list. It will allow a user to reset the password or to request a password reset if the user has forgotten the current password. I will explore automating password resets and will include that capability if I can. It will allow an administrator to add or delete users and to reset a password for any user.

**Back End**

The back end will be a MySQL database with tables for users, user playlists, songs, and credentials.

The user tables will include user ID, password, and permissions as well as a link to a user playlist table. The user ID will be the primary key.

The user playlist table will include user ID, and playlist IDs. The playlist ID will be unique and a primary key.

The playlist table will include a list of song IDs and the playlist ID.

The song table will include song meta-data and song access information including URL and a credentials ID. This last is optional if I can incorporate auto-login to sites for which the user has an account. In this case, there will also be a credentials table for each user. These credentials will need to be protected (encrypted).

**User Interface**

The welcome screen will say a little bit about the provided service and accept login credentials. It will also accept requests to reset a password.

Successful login will result in a new screen with a section for playing a playlist in either ascending order or shuffled. It will include a sub-window that provides a range of options to edit playlists or credentials. The credentials sub-window will accept a URL, a username, and a password. The edit playlists will support adding a song by URL, editing a song entry, or deleting a song. It will also support re-ordering by moving a song up or down in the playlist.

**Control Flow**

The User Interface will work like the project 4 interface from Advanced Java. Each web page will accept user input and redirect the request to the appropriate processor which will access the database, access any necessary files, and redirect to a results page. The results page will have links to all of the necessary processing control entities.