PR3 - Project Description

Problem Statement

We have set out to build a music streaming service for users, who can listen to their favourite songs posted by different artists. The system also allows advertisers to promote their products; which are displayed to the users of the service.

Proposed Solution

A user will be able to login to the system and can search his/her favourite songs. The user can also search for albums, artists, and playlists that are made available on the website. The user can create his/her own customized playlists containing any number of songs of his/her choosing. The song library on the website contains songs that are available on the Napster and Spotify Web API. Along with that, our website will allow artists to create their own credentials and upload new songs of their own. This will be a part of our local database only. Apart from these two user, the website also allows advertisers to login in to the website and create advertisements. They can sponsor artists on the website and in return they can show their ads to the users of the website.

Domain Objects

- Track: A track is a song that is either pulled from an API or from local database.

- Playlist: A playlist is a collection of songs. These are made available to the users of the website and is refreshed periodically; or this could be a customizable object by the user.

- Album: These are a collection of songs that are released by the artist. This could contain on or more songs.

Human Users and Goals

- Admin: Has full access to the system, can add and remove users, and monitor content.

- Listener: Listen to songs, create personalized playlist, and browse content.

- Artist: An artist can upload albums on the website, as well as listen to songs and create playlists.

- Advertiser: Create Ads, sponsor artists, and promote their products on the website.

User to User relationships

- Admin - User: Add/Remove.

- User - User : Any user can follow anyone

- Listener - Artist: Save their playlists.

- Artist - Advertiser: Can select ads that the artists wishes to promote on their content.

- Advertiser - Artist: Can Sponsor.

User to Domain Object relationships

- Listener - Track : Can search and save in their playlist.

- Listener - Playlist : Can save, follow, and create.

- Listener - Album : Can search and save.

- Artist - Track : Can create, search, and save in their playlist.

- Artist - Playlist : Can save, follow, and create.

- Artist - Album : Can search, create, and save.

- Advertiser - Track : Can sponsor, search, and save in their playlist.

- Advertiser - Playlist : Can sponsor, save, and follow.

- Advertiser - Album : Can search, sponsor, and save.

Domain Object and Domain Object relationships

- Track - Album: Album contains a track and a track may be contained in multiple albums.

- Track - Playlist : Playlist contains a track and a track may be contained in multiple playlists

- Album - Playlist : An album could be a playlist and vice versa.