Models

UserAccount

ID	Binary
Name	String
PasswordHash	Binary

Queried by:
- Name

Session

Token	String
UserAccountID	Binary
Expiration	Date

Queried by:
- Token
- UserAccountID
- Expiration

UserProfile

ID	Binary
UserAccountID	Binary
Name	String

Queried by:
- UserAccountID
- Name

SongList

ID	Binary
UserProfileID	Binary
Title	String
LastModificationDate	Date

Queried by:
- UserProfileID

SongListEntry

ID	Binary
SongListID	Binary
Rank	Number
Title	String
Artist	String
ContentURL	String

Queried by:
- SongListID

Flows

Create song list

A user logs in. The user creates a new song list. The user provides a title for the song list.

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A new SongList instance is created. The ID field is randomly generated and verified to be unique. The UserProfileID field is taken from the ID field of the user's corresponding UserProfile instance. The Title field is taken from the user input. The LastModificationDate field is taken from the current date.

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The user adds a song to a specific location (rank) within the song list. The user provides an URL that represents the song (YouTube, Spotify, etc.).

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A new SongListEntry instance is created. The ID field is randomly generated and verified to be unique. The SongListID field is taken from the ID field of the new SongList instance. The Rank field is determined by where the user has placed this new entry. The Title and Artist fields are extracted from the URL the user has provided. The ContentURL field is taken from the URL the user has provided.

Show song list

A user looks up the song list for an existing user. The request's URL looks like the following. http://[domain]/[user's profile name]

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The UserProfile instance is queried for by the Name field, using the value provided in the path.

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The SongList instance is queried for by the UserProfileID field, using the ID field of the UserProfile instance.

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All relevant SongListEntry instances are queried for by the SongListID field, using the ID field of the SongList instance.

System architecture