MUSIC STREAMING SERVICE(CLASS DIAGRAM)

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| User |
| - userID: String  - email: String  - username: String  - password: String  - subscription: Subscription  - recommendations: List<Recommendation>  - history: List<History>  - payments: List<Payment> |
| + createUser()  + readUser(userID: String): User  + updateUser(user: User): void  + deleteUser(userID: String): void  + addRecommendation(recommendation: Recommendation): void  + addHistory(historyEntry: History): void  + addPayment(payment: Payment): void  + setSubscription(subscription: Subscription): void |

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| Recommendation |
| - userID: String  - recommendationID: String  - song: Song |
| + createRecommendation(): void  + readRecommendation(id: String): Recommendation  + updateRecommendation(recommendation: Recommendation): void  + deleteRecommendation(id: String): void |

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| History |
| - historyID: String  - userID: String  - songID: String  - timestamp: Date |
| + createHistory(): void  + readHistory(id: String): History  + updateHistory(history: History): void  + deleteHistory(id: String): void |

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| Subscription |
| - name: String  - subscriptionID: String  - price: double  - users: List<User> |
| + createSubscription(): void  + readSubscription(id: String): Subscription  + updateSubscription(subscription: Subscription): void  + deleteSubscription(id: String): void  + addUser(user: User): void |

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| Playlist |
| - playlistID: String  - songs: List<Song>  - userID: String  - name: String |
| + addSong(song: Song): void  + removeSong(song: Song): void  + createPlaylist(): void  + readPlaylist(playlistID: String): Playlist  + updatePlaylist(playlist: Playlist): void  + deletePlaylist(playlistID: String): void |

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| Album |
| - albumID: String  - artistID: String  - title: String  - genreID: String  - releaseDate: Date |
| + createAlbum(): void  + readAlbum(albumID: String): Album  + updateAlbum(album: Album): void  + deleteAlbum(albumID: String): void |

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| Genre |
| - genreID: String  - name: String  - artists: List<Artist>  - songs: List<Song> |
| + addArtist(artist: Artist): void  + removeArtist(artist: Artist): void  + addSong(song: Song): void  + removeSong(song: Song): void  + createGenre(): void  + readGenre(genreID: String): Genre  + updateGenre(genre: Genre): void  + deleteGenre(genreID: String): void |

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| Song |
| - songID: String  - title: String  - artistID: String  - albumID: String  - genres: List<Genre>  - length: double  - releaseDate: Date |
| + createSong(): void  + readSong(id: String): Song  + updateSong(song: Song): void  + deleteSong(id: String): void  + addGenre(genre: Genre): void  + removeGenre(genre: Genre): void |

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| Artist |
| - artistID: String  - name: String  - albums: List<Album>  - songs: List<Song>  - genres: List<Genre> |
| + createArtist(): void |  + readArtist(id: String): Artist  + updateArtist(artist: Artist): void  + deleteArtist(id: String): void  + addAlbum(album: Album): void  + addSong(song: Song): void  + addGenre(genre: Genre): void  + removeGenre(genre: Genre): void |

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| Payment |
| - paymentID: String  - amount: double  - date: Date  - userID: String |
| + createPayment(): void  + readPayment(id: String): Payment  + updatePayment(payment: Payment): void  + deletePayment(id: String): void |