**TRACEABILITY TABLE**

NeoTunes - Integrative Task 3

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| **Functional** Requirement | **Class Name** | **Method name** |
| Rf001 – Register Producer | Manager | registerProducer(): void |
| Controller | registerArtist(name: String, documentId: String, pictureUrl: String): boolean |
| registerContentCreator(name: String, pictureUrl: String): boolean |
| searchUser(userName: String): User |
| ContentCreator | ContentCreator(name: String, pictureUrl: String) |
| Artist | Artist(name: String, documentId: String, pictureUrl: String) |
| RF002 – Register Consumer | Manager | registerConsumer():boolean |
| Controller | registerStandardConsumer(): boolean |
| registerPremiumConsumer(): boolean |
| searchUser(userName: String): User |
| StandardConsumer | StandardConsumer(nickname: String, documentId: String) |
| PremiumConsumer | PremiumConsumer(name: String, pictureUrl: String) |
| RF003 – Register Audio | Manager | registerAudio(): void |
| Controller | showUsers(): String |
| showPodcastCategories(): String |
| showSongGenres(): String |
| showCatalogue(): String |
| searchUser(userName: String): User |
| searchAudio(audioName: String): Audio |
| registerSong(songName: String, pictureUrl: String, duration: String, genre: int, album: String, saleValue: double, artistName: String): boolean |
| registerPodcast(podcastName: String, pictureUrl: String, duration: String, category: String, description: String, contentCreatorName: String): boolean |
| Artist | addAudio(newAudio: Audio): boolean |
| ContentCreator | addAudio(newAudio: Audio): boolean |
| Song | Song(songName: String, pictureUrl: String, duration: String, genre: int, album: String, saleValue: double, artistName: String) |
| Podcast | Podcast(podcastName: String, pictureUrl: String, duration: String, category: String, description: String, contentCreatorName: String) |
| RF004 – Register Playlist | Manager | registerPlaylist(): void |
| Controller | showUsers(): String |
| registerPlaylist(consumerName: String, type: int, name: String): boolean |
| searchUser(userName: String): User |
| showConsumerPlaylists(consumerName: String): String |
| Consumer | addPlaylist(newPlaylist: Playlist): boolean |
| Playlist | Playlist(name: String) |
| SongPlaylist | SongPlaylist(name:String) |
| PodcastPlaylist | PodcastPlaylist(name: String) |
| RF005 – Edit Playlist | Manager | editPlaylist(): void |
| Controller | showUsers(): String |
| showConsumerPlaylists(consumerName: String): String |
| addOrRemovePlaylistAudio(operation: int, consumerName: String, audioName: String, playlistId: String): boolean |
| renamePlaylist(consumerName: String, playlistId: String, playlistId: String): boolean |
| searchUser(userName: String): User |
| searchPlaylist(id: String): Playlist |
| searchAudio(audioName: String): Audio |
| Playlist | addAudio(newAudio: Audio): boolean |
| searchAudio(newAudio: Audio): Audio |
| RF006 – Share Playlist | Manager | sharePlaylist(): void |
| Controller | showUsers(type: int): String |
| showConsumerPlaylists(consumerName: String): String |
| sharePlaylist(consumerName: String, playlistId: String): String |
| searchUser(consumerName: String): User |
| searchPlaylist(id: String): Playlist |
| Playlist | updateId(): void |
| RF007 – Play Audio | Manager | playAudio(): void |
| Controller | showCatalogue(type: int): String |
| showUsers(type: int): String |
| playAudio(consumerName: String, audioName: String): String[] |
| searchUser(consumerName: String): User |
| searchAudio(audioName: String): Audio |
| Consumer | playAudio(audio: Audio): void |
| showAdvertise(): boolean |
| Record | Record(consumerName: String, audio: Audio) |
| Audio | play(): String |
| RF008 – Buy Song | Manager | buySong(): void |
| Controller | showCatalogue(type: int): String |
| showUsers(type: int): String |
| showPurchases(consumerName: String): String |
| buySong(consumerName: String, songName: String): boolean |
| searchUser(consumerName: String): User |
| searchAudio(audioName: String): Audio |
| Consumer | addSong(newSong: Song): boolean |
| Record | Record(consumerName: String, audio: Audio) |
| RF009 – Show Statistics | Manager | showStatistics(): void |
| Controller | showTotalPlaysPerType(): String |
| calculateTotalPlaysPerType(): int[][] |
| mostPlayedSongGenre(): String |
| mostPlayedSongGenre(consumerName: String): String |
| mostPlayedPodcastCategory(): String |
| mostPlayedPodcastCategory(consumerName: String): String |
| showUsers(type: int): String |
| showUsersTop(limit: int): String |
| showAudiosTop(limit: int): String |
| showTotalSalesPerGenre(): String |
| bestSellerInformation(): String |
| sortProducers(): ArrayList<Producer> |
| sortAudios(): void |
| Producer | calculateTotalPlays(): int |
| calculateTotalTimePlayed(): int |
| Audio | getNumberOfPlays(): int |
| Podcast | getCategory(): Category |
| Song | getGenre(): Genre |
| getNumberOfSales(): int |
| calculateTotalIncome(): double |