**TABLA DE ESPECIFICACIÓN DEL PROBLEMA DE INGENIERÍA DE SOFTWARE, identificando los siguientes elementos**

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| CLIENTE | Neotunes |
| USUARIO | User. |
| REQUERIMIENTOS FUNCIONALES | -Register producer  -Register consumer  - Register song  - Register podcast  -Register Playlist  - Edit Playlist  - Share playlist  - Simulate audio  - Buy Song  - Report of reproductions  - Report most listened Song  - Report most listened Genre  - Report most listened Podcast  - Report most listened category |
| CONTEXTO DEL PROBLEMA | The company has to consider the functions that similar application has in their apps, the servers and maximum quantity of user, besides the functions that it has to apply in order to satisfy the needs of the users.  . |
| REQUERIMIENTOS NO FUNCIONALES | -The app has to implement the possibility of creation of new users.  - The app has to implement the possibility of creation of new audios |

**Análisis de requerimientos funcionales:**

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| Nombre o identificador | R1. Register producers users | | |
| Resumen | The system must be able to register artists and content creators. For this, the system requires some data about the producers. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| type | int | If the system is registering a new producer. |
| name | string | If the system is registering a new producer. |
| date | string | If the system is registering a new producer. |
| urlImage | string | If the system is registering a new producer. |
| Actividades generales necesarias para obtener los resultados | The system creates the new producer and save it at the system | | |
| Resultado o postcondición | The new producer will be registered and the system print a message | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| confirm | string | If the producer was created |
| error | string | If the producer was not created |

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| Nombre o identificador | R2. Register consumer users. | | |
| Resumen | There are two types of consumer users: premium and standard users. The system must be able to register both. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| type | int | If the system is registering a new user. |
| nickname | string | If the system is registering a new user. |
| id | string | If the system is registering a new user. |
| date | string | If the system is registering a new user. |
| Actividades generales necesarias para obtener los resultados | The system associates the new user data with an user object | | |
| Resultado o pos condición | The user will be registered and the system return a message the confirms if the user was registered | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If the user was registered |
| error | string | If the user was not registered |

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| Nombre o identificador | R3. Register a song | | |
| Resumen | The system must be able to register songs. For this, it requires some data about the song. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| name | string | if the system is registering a new song |
| álbum | string |
| gender | int |
| frontPage | string |
| duration | double |
| price | double |
| Actividades generales necesarias para obtener los resultados | The system saves the data in a new song object and initializes the number of reproduction and the number of sales. | | |
| Resultado o pos condición | The new song will be registered and will be ready to reproduce an sell it | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If the song was registered |
| error | string | If the song wasn't registered |

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| Nombre o identificador | R4.Register podcasts | | |
| Resumen | The system must be able to register podcasts. For this, it requires some data about the podcast. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| name | string | If the system is registering a new podcast |
| description | string |
| category | int |
| imageUrl | string |
| duration | double |
| Actividades generales necesarias para obtener los resultados | The system saves the data in a new podcast object and initializes the number of reproductions. | | |
| Resultado o pos condición | The new podcast will be registered and will be ready to reproduce. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If the podcast was registered |
| error | string | If the podcast wasn'tregistered |

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| Nombre o identificador | R5. Register a playlist | | |
| Resumen | A playlist is a collection of audio files. For register a playlist, the system must get the name of the new playlist and audio files. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| name | string | If the system is registering a new playlist |
| audiofile | number | If the system is registering a new playlist. This icon will be repeated every how many times the user wants |
| Actividades generales necesarias para obtener los resultados | The system creates a new playList whit the name entered and creates the collection of the audio files entered. | | |
| Resultado o pos condición | The playlist will be registered and it could be shared | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If the palyList was registered correctly |
| error | string | If the palyList was not registered |

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| Nombre o identificador | R6. Edit a playlist | | |
| Resumen | The system must be able to edit the name of the playlist or the collection of the playlist. For this, The system asks the user what file he or she wants to edit. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| action | int | If the user is editing a playList |
| name | string | If the user wants to change the name of the playlist |
| fileToDelete | int | If the user wants to delete a file of the playList |
| fileToAdd | int | If the user wants to add a file to the playlist. |
| Actividades generales necesarias para obtener los resultados | The system searches, the character that will be edited and makes the changes. | | |
| Resultado o postcondición | The playlist will be edited. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If the playlist was edited. |
| error | string | If the playlist was not edited. |

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| Nombre o identificador | R7. Share a playlist | | |
| Resumen | The system must be able to share a playlist between users. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| user | int | If the system is sharing a playlist |
| playlist | int | If the user has playlists |
| Actividades generales necesarias para obtener los resultados | The system will create a code to the new playlist based on the types of audio files that there are in the playlist (Podcasts or songs). The system do it using a matrix. | | |
| Resultado o postcondición | The code will be generated | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| code | string | If the user has files |
| error | string | If the user does not have files |

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| Nombre o identificador | R8. Simulate reproduction of audio | | |
| Resumen | The system must be able to simulate the reproduction of audio for an user. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| user | int | If the system is trying to reproduce audio |
| audio | int | If teh user has audio files |
| Actividades generales necesarias para obtener los resultados | The system searches the audio and creates a string for the file selected. | | |
| Resultado o postcondición | The string will be ready to show | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| audio | string | If the user has audio files |
| error | string | If the user does not have audio files |

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| Nombre o identificador | R9. Buy a song | | |
| Resumen | The system must allow the purchase of songs. The users can buy songs according to their account type. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| user | int | If the system is selling a song |
| song | int | If the user can buy songs |
| Actividades generales necesarias para obtener los resultados | When the user chooses the song the system will save this song in the user account. | | |
| Resultado o postcondición | The user will have a new song in his account. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If the sale was successfully |
| error | string | If the user can not buys more songs |

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| Nombre o identificador | R10. Report the number of reproductions of an audio. | | |
| Resumen | The system must be able to count the times of reproductions for an audio file and the system must be able to show this number for an audio file entered too. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| audio | int | If the there are audio files in the system |
| Actividades generales necesarias para obtener los resultados | The system searches the audio and will get the number of reproductions of the audio. | | |
| Resultado o postcondición | The number will be ready to be shown to the user | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If there are audio files in the system |
| error | string | Is there are not audio files in the system |

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| Nombre o identificador | R11. Report the most listened song in the platform | | |
| Resumen | The system must be able to know what is the most listened genre and it can count the repeats of reproductions. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| confirm | int | If sistem is trying to shows the most repeated genre |
| Actividades generales necesarias para obtener los resultados | The system searches the most repeated genre, save the genre and its number of reproductions. | | |
| Resultado o postcondición | The information will be ready to be shown. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If there is a most repeated genre |
| error | string | If there’s not a most repeated genre |

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| Nombre o identificador | R12. Report the most listened genre of an user. | | |
| Resumen | The system must be able to know what is the most listened genre for a specific user and it can count the repeats of reproductions of the user. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| user | int | If the system is trying to show this information for an user. |
| Actividades generales necesarias para obtener los resultados | The system searches the most repeated genre for a user, it saves the genre and its number of reproductions. | | |
| Resultado o postcondición | The information will be ready to be shown. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If the user has a most repeated genre already |
| thersno | string | If the user hasn’t a most repeated genre yet |

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| Nombre o identificador | R13. Report the most listened category in the platform | | |
| Resumen | The system must be able to know what is the most listened category and it can count the repeats of reproductions. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| confirm | int | If sistem is trying to shows the most repeated category |
| Actividades generales necesarias para obtener los resultados | The system searches the most repeated category, save the category and its number of reproductions. | | |
| Resultado o postcondición | The information will be ready to be shown. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If there is a most repeated category |
| error | string | If there’s not a most repeated category |

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| Nombre o identificador | R14. Report the most listened category of an user. | | |
| Resumen | The system must be able to know what is the most listened category for a specific user and it can count the repeats of reproductions of the user. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| user | int | If the system is trying to show this information for an user. |
| Actividades generales necesarias para obtener los resultados | The system searches the most repeated category for a user, it saves the category and its number of reproductions. | | |
| Resultado o postcondición | The information will be ready to be shown. | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | string | If the user has a most repeated category already |
| thersno | string | If the user hasn’t a most repeated category yet |