CMPUT291 Mini Project 1

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A general overview of the system with a small user guide:- This program closely resembles Spotify but not at a very high level. A user and artist can access this system only after a successful login, if a user is trying to login for the first time the system will allow them to create a new user id and password. The main functionality of this program is to allow users to search for song and artist using keywords and perform some song action over a selected song and artist can add new songs or/and get the list of top three users who listens to that artist the most.

User guide:-

First user will be asked to input the name of the database they want to work on.

LogIn:- customer will be asked to enter User ID and Password, then system will check within the database to allow access if the id or password does not match or does not exist in the database system will ask user if they are a new customer, then system will check whether the customer is user, artist or both.

User:- users will be asked how many of the possible functionalities they want to use after that they will be ask to choose which functionality they want to perform if start session then a new session will start, if search for songs and playlists then will be asked to enter keywords they want to search for, if search for artists then they will be asked to enter keywords they want to search for in artist name or their songs, if end session the current session will be closed.

Artist:- On top of what the user can do, the artist will have the option to check for the top user based on the user who listens to him the most and add a new song to his name.

Song Action:- when called user will have the option to 1) listen to a song which will play the song under a session if a new session a already started by the user if not a new session will be started 2) get information about song will print information about the song 3) add to the playlist, if user already have a playlist the song will be added to the playlist else a new playlist will be asked to create.

A detailed design of the software:- this program is created keeping in mind the tables given in assignment 2 are valid (variable type used in assignment 2 is consistent with miniProejct1 as well). First the program will ask to enter a database name followed by login ID and password. If the login ID or/and password does not match to the one in the database, the system will ask if they are a new user or not. If yes, the user will be able to create a new user ID and password. Whoever artist can not create a new artist ID and password.

For user:

After successful login, the user can start a new session, songs and playlist can be searched using keywords which will display a list of songs, then the user can select a song to perform song actions such as listen to a song, see more information of a song and add song to a playlist. Similarly, artists can also be searched using keywords which will display a list of artist names from which a user can pick an artist which will display a list of songs performed by that artist then the user can select a song to perform song actions such as listen to a song, see more information of a song and add song to a playlist. At the end user can either log out or exit the program.

For artist:

After successful login, the artist have 3 choices to choose from:

-> adding a new song

-> finding the top 3 song listeners

-> logging out or exiting the program

When adding a song, the artist will also be prompted to register any other artist as well who collaborated with them. They will also be linked to the song.

To find the top 3 song listeners, it will calculate the duration a user listens to a song of that particular artist and then select the top three based on it.

Logging out and exiting the program works the same way as for users.

Testing strategy:- For testing this program, data from assignment 2 has been used with password for user and artist. After writing code for each functionality code was tested using data mentioned above. Errors were checked and changes were made accordingly. Then again after adding new code full functionality of the program was tested before moving on.

Group work strategy

The project break-down between partners is well-explained:-

Aryan did the login screen, then user actions all four of them start the session, search for songs and playlists, search for artists and end the session, and also the song action part.

Jaspreet did the artist action such as add songs and find top fans and playlists. Also final code testing.

The person responsible for each task is stated:-

Aryan Patel:- Login, User action (Start Session, Search for songs and playlists, Search for artists and End Session), Song Action.

Jaspreet Singh Dhami:- Artist action (Add a song and Find top fan and playlists) and testing of functionality of code.

The time spent and the progress made for each partner is stated:-

We both started working on the mini project on Friday 28th and worked through the weekend and were done by Sunday 30th. After that we worked on code testing and based on the observations, changes were made to the code to restore proper functionality.

The method of coordination is discussed:-

Before starting working on the mini project we first met on Friday 28th and discussed how and what needs to be done and divided the work. Then throughout the weekend we worked on it and on Tuesday 1st we met again and tested your functionality of code and made some adjustments to make the program work as intended. After that we used discord to communicate about code testing and possible improvements.