Software Requirement Specifications SRS

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Aim: Core-functions, non-function

Project Title: <u>Emotion based Music Player</u>

1) Core Functional Requirements.

R1: Login

R1.1: Login(Existing Account)
Input: 'User id' and 'Password'
Output: Display home page

R1.2 : Sign Up(Create New Account)
Input: Fill up the registration form. Enter Full name, username, password, security Q&A, preferred genres.
Output: New user account is created and redirected to home page.

R2: Edit User

R2.1: (Click on) Edit Profile Option
Input: Select 'Edit' option.
Output: 'Edit Profile' form is displayed and information is added in the database.

R1.2 : (Click on) Update Profile Option
Input: Select 'Update' option.
Output: 'Update Profile' form is displayed and information is updated in the database.

R3: Add Songs to Playlist
R3.1: (Click on) 'Add Song' Option
Input: Select 'Add Song' option.
Output: Emotion-Song pair is added in the playlist.

R4: Update/Remove Song
R4.1: (Click on) Remove Option
Input: Select 'Remove Song' Option.
Output: Remove the selected songs from the database.
R4.2 : (Click on) Update Option
Input: Select 'Update Song' Option.
Output: Update the selected songs in the database.

R5: Search Song
R5.1: Search Song (automatic)
Input: Face recognition to capture the emotions.
Output: Make a playlist of the selected emotion and play that
song.

R5.2 : Search Song (manually)
Input: Enter song name and details of the song.
Output: Make a playlist of the selected emotion and play that
song.

R6: Logout
R6.1: (Click on) Logout Option
Input: Click on 'Logout' Option.
Output: Logout Successfully.

2) Non-Functional Requirements

N1: Security
The system should ensure the security of the system and not leak the user details. It should be protected from unauthorized access

N2: Platform Independency

The system should be platform independent so that it is accessible in any operating system on any device.

N3: Internet Connection

The system should have a stable internet connection for searching, playing and connecting songs with emotion.

N4: Concurrency

The system server should be able to handle concurrent requests from multiple users across multiple devices.

N5: Confidentiality

The system should not share user confidential information with other users or any other external parties. It should have end-to-end encryption between user and database.

N6: Operational Requirements

The system should draw information from main songs databases, which contain basic information about songs availability, details, trending songs etc.. The system should store information by the user when making the update of songs in the playlist.

3) Mention Ambiguity, In-consistency & In-complete requirement in Proj. Overview Def for each one.

i: In database systems, if the transaction violates any integrity constraints, it may cause the database to go from 'Consistent to inconsistent' state.

ii: Similarly, if the algorithm specified doesn't cover the entire possible basic working of the Music Player System (or) code which may be syntactically complete but not compilable, interpretable or executable. Both these leads to In-complete requirements and it makes the database system go in an illegal state and the transaction is aborted and an error will be reported.

iii: Another inconsistency can arise due to different conventions of coding parameters and styles.

iv: Inconsistency may even arrive in the designing phase during implementation of interface of functions, classes, and algorithms.