System Title

SRS

Introduced By G30

Version	Written By	Reviewed By	Approved By	Date
0.X				
1.X				

Introduction

Executive Summary

Listen together is a mobile application that in principle allows its users to play music at the same time. It will have unlimited music resources and strong social integration features. It is going to be have a user-friendly interface with a simple feel to it. A user should be able to enjoy a lightweight and fun experience.

Document Overview

In this document we describe the requirements for Listen Together, a system that enables people to listen to music together in sync.

Abbreviations and Terminologies

Table of abbreviations and terminologies.

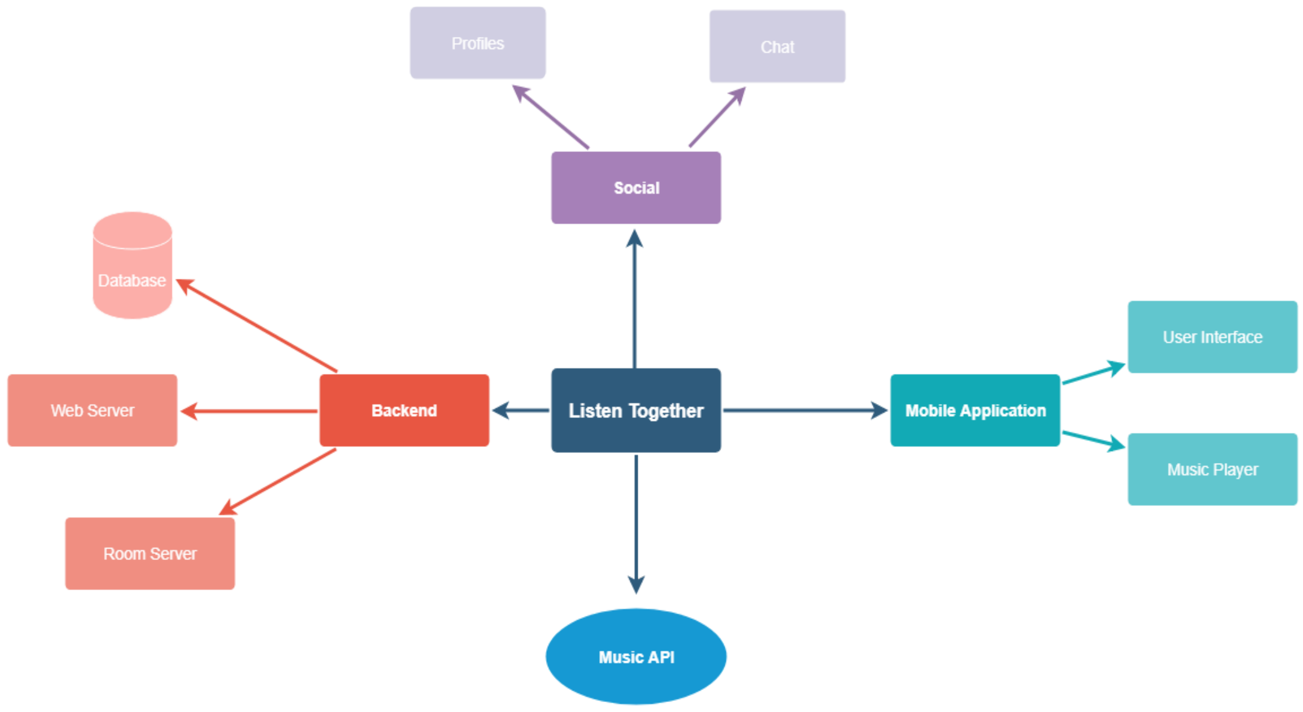
References

List of external references.

System Description

Introduction

The Listen Together System consists of a number of subsystems interacting together and with an external system. Our subsystems can be listed as: The ‘Social’ subsystem, the ‘Backend’ subsystem, and the ‘Mobile Application’ subsystem. The external system interacting with our system is the ‘Music API’. The ‘Social’ subsystem consists of two smaller subsystems which are the ‘User Profile’ and the ‘Chat’. The ‘Backend’ subsystem consists of three smaller systems which are the ‘Database’, the ‘Web Server’ and the ‘Room Server’. Finally, the ‘Mobile Application’ subsystem consists of two smaller subsystems which are the ‘User Interface’, and the ‘Music Player’.



Users

Our system has only of kind of user; the user which interacts with our mobile application, or the client.

Modules

1. Storage
   - Store user authorization information
   - Store user profile details
   - Store playlists

2. Social Integration Module
   This module is in control of handling all user and user to user interactions such as:
   - Authorizing users
   - Handling friend requests
   - Linking friends to user accounts
   - Linking playlists to user accounts
   - Retrieve friends online
   - Retrieve invitations

- Retrieve friend requests
- Allows search over application users
- Allows adding new friends to user profile

3. Playlist Module
   This module is in control of anything playlist related such as:
   - Defines what a playlist is.
   - Creating playlists
   - Retrieving playlists
   - Authorizes permission to edit a playlist

4. Room Server Module
   This module is in control of handling music syncing within a single room; it can do the following:
   - Allow synced playing
   - Allow synced pausing and resuming
   - Allow synced skipping
   - Transmit track choices to all users in a room
   - Handles chat within a room
   - Handles the music backend calls

5. Room Server Spawner Module
   This module is in control of spawning new room servers upon request from a user; it can do the following:
   - Receive room creation requests
   - Authorize and check for eligibility for room creation requests
   - Launches room servers with correct parameters
   - Handle room join requests

6. Music Backend Module
   This module is in control of handling all music requests; it can do the following:
   - Query the available song choices by name
   - Respond to query by top songs that match
   - Respond with a song by name on first occurrence
   - Respond with a song by link if match of the link searched for by user found

7. Mobile Application Module
   This module serves the end user; it does the following:
   - Provide a logging in screen

- Provide a sign up screen
- Provide room screen
- Provide music player screen
- Provide a chatting interface
- Provide notification bar music handling
- Provide playlist interface
- Provide user profile interface
- Provide ability to join a room

System Users

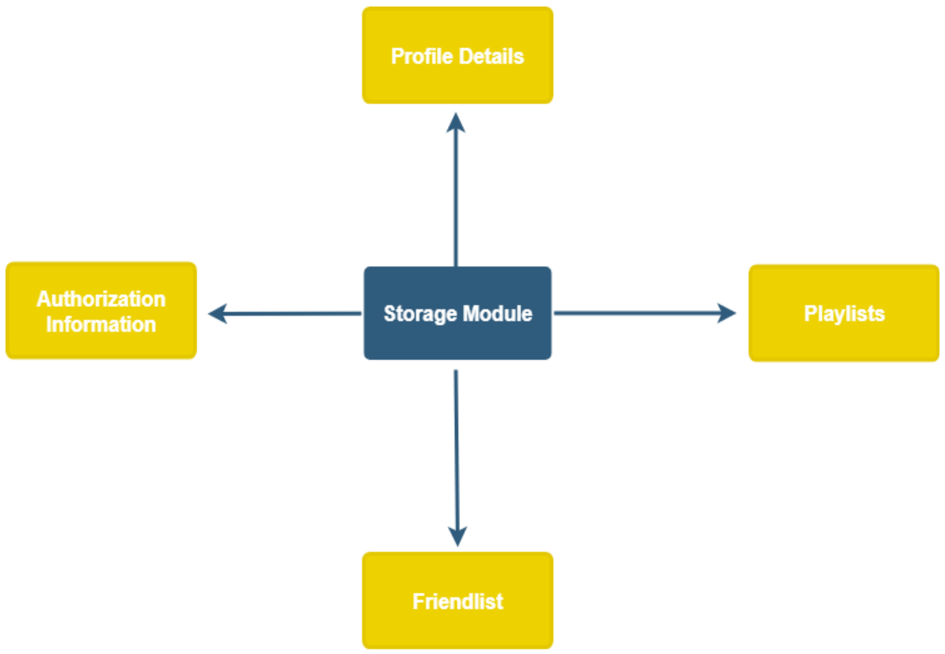
User Description

Provide user role description in details.

System Modules

1. Storage Module

This module handles all types of storages in listen together system. It is basically a module describing our database and the kinds of data that will be stored in it.



Details on stored data:

1. Profile Details: UserID, Nickname, E-mail
2. Authorization Information: UserID, Username, Password
3. Playlists: UserID, PlaylistID, PlaylistName, SongName
4. Friendlist: UserID, FriendID

Use activity diagram, state machine diagram, data flow, diagrams to illustrate module operations.

2. Social Integration Module

Provide module description.
Use block or context diagram to illustrate external and sub-modules.
Use activity diagram, state machine diagram, data flow diagrams to illustrate module operations.

3. Playlist Module

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4. Room Server Module

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5. Room Server Spawner Module

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6. Music Backend Module

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7. Mobile App Module

Provide module description.
Use block or context diagram to illustrate external and sub-modules.
Use activity diagram, state machine diagram, data flow diagrams to illustrate module operations.

System Functions

[FR_M] Module Functions

[FR_M_N] Module Function

Description: Provide function description.

Inputs: Provide function inputs.

Outputs: Provide function description.

Pre-conditions: Provide function required conditions to work.

Post-conditions: Provide new conditions after work.

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System Models

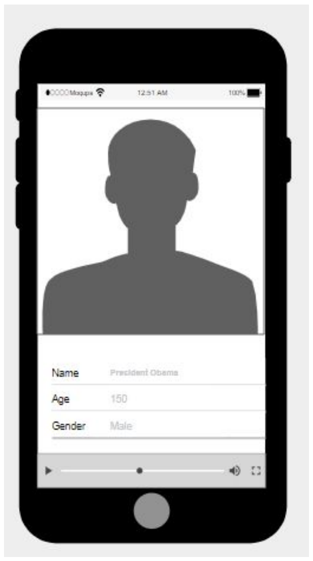
<Make only mandatory diagram to illustrate overall system interaction or to explain complex scenarios>

Use Case Diagrams

The following is a description of the use cases for Listen Together mobile application. In the first version of our system there is only one role, the role of the music listener, the mobile end user.

Use Case Diagram

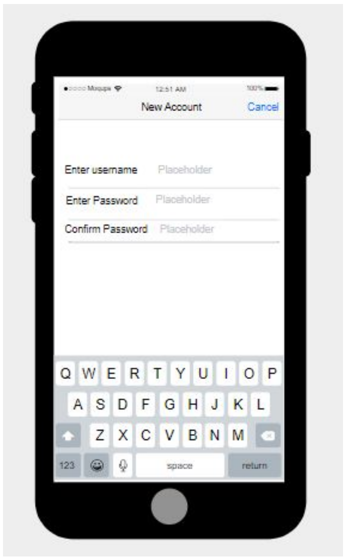
Show use case diagram.



Name	President Obama
Age	150
Gender	Male

Use Case Diagram

Show use case diagram.



Use Case Diagram

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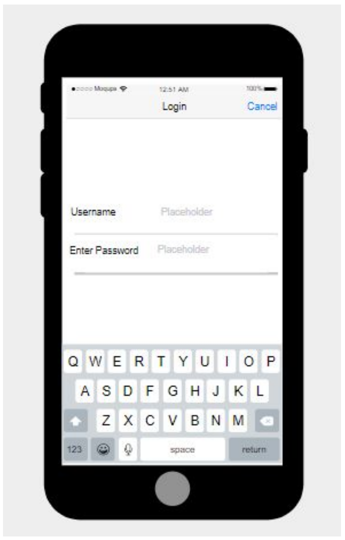

Provide brief explanation of the diagram.

Sequence Diagrams

Sequence Diagram

Show sequence diagram.
Provide brief explanation of the diagram.

Sequence Diagram

Show sequence diagram.
Provide brief explanation of the diagram.

Non-Functional Requirements

[NFR_X] <Scalability> Requirements

The system should be able to

[NFR_X_Y] <Security> Requirement

Non functional requirement description.

[NFR_X] <Usability> Requirements

[NFR_X_Y] <Usability> Requirement

Non functional requirement description.

[NFR_X] <Performance> Requirements

[NFR_X_Y] <Performance> Requirement

Non functional requirement description.

[NFR_X] <Technology> Requirements

[NFR_X] <Development> Requirements

[NFR_X] <Delivery> Requirements

[NFR_X] <Operation> Requirements

Domain Requirements

[DR_X] <Domain> Requirements

[DR_X_Y] <domain> Requirement

Explain <domain> requirement or constrain.

[DR_X] <Domain> Requirements

[DR_X_Y] <domain> Requirement

Explain <domain> requirement or constrain.

[DR_X] <Domain> Requirements

[DR_X_Y] <domain> Requirement

Explain <domain> requirement or constrain.

System Interfaces

User Interfaces

Module Screens

List of module screens.

Module Screens

List of module screens.

Communication Interfaces

Hardware Interfaces

Other Interfaces