CSC 431

Apollo Music Dating and Social Network Application

Software Requirements Specification (SRS)

Team 09

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Version History

Version	Date	Author(s)	Change Comments
1	2/21/21	Samantha Kamath, Megan Page, Yunting Zhao	First Draft
2	3/9/21	Samantha Kamath, Megan Page, Yunting Zhao	Second Draft

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1. System Requirements

1.1 Functional Requirements

1.1.1 Creating User Account

Title	Creating User Account
Description	System creates a new user account when users register using a new email or phone number.
Priority	3
Precondition(s)	User has a google account, facebook, or phone number to sign up with
Basic Flow	1. A first time user will interact with a screen that gives the option to login or sign up. 2. User will be asked to enter their third party app information or phone number
Postconditions(s)	User will be prompted to add profile page information
Use Case Diagram	3.1.1

1.1.2 Creating Profile

Title	Creating Profile
Description	System creates a user profile and presents users with the option to add personal information.
Priority	0
Precondition(s)	User registers with the app.

Basic Flow	1. User will be asked to enter their - Age - Location - Picture(s) of user - Bio (optional) - Top artists (optional) - Favorite song (optional) - Compatibility threshold (%) - Spotify and Apple Music access to link top artists to user's profile
Postconditions(s)	User will be seen on seeking page upon profile creation
Use Case Diagram	3.1.2

1.1.3 Logging In

Title	Logging In
Description	The system logs in users using the same process and credentials with which they registered.
Priority	3
Precondition(s)	User must have an account set up with third party credentials or phone number
Basic Flow	1. User will be asked to Login or sign up upon deletion and reinstallation of app. 2. Returning users will login with the credentials they used to sign up
Postconditions(s)	User will be taken to Seeking Page
Use Case Diagram	3.1.3

1.1.4 Matching Preferences

Title	Matching Preferences
Description	The system executes the preferences matcher every time a user saves their profile.
Priority	3
Precondition(s)	Users have made changes to their profile.
Basic Flow	1. Users save their profile changes. 2. The preferences matcher is executed, creating a list of compatible matches for the user.
Postconditions(s)	The new list of matches is depicted on the user's seeking page.
Use Case Diagram	3.1.4

1.1.5 Users Exploring Profiles

Title	Users Exploring Profiles
Description	Users view other users' profiles and like or dislike the profiles.
Priority	0
Precondition(s)	User has created and saved a profile and navigated to the Seeking Page.
Basic Flow	1. User views another user's profile. 2. User swipes through the user's profile to learn about their interests and characteristics. 3. User swipes left or right to indicate their disinterest or interest in the other user, respectively.
Postconditions(s)	If the user swiped left, the profile disappears from the user's list of matches. If the user swiped right, the profile may be one potential match.

Use Case Diagram	3.1.5

1.1.6 Messaging Matches

Title	Messaging Matches
Description	System matches users together with the ability to chat with one another and unmatch one another.
Priority	0
Precondition(s)	Both users have chosen to like each other's profiles, creating a match between them.
Basic Flow	1. The user will enter the matchmaking chat screen and start a quick conversation with the other user. 2. The longer users talk and the more messages they send, the more the interaction history will be record and more chat features can be unlocked 3. The user can choose to keep the chat partner in their list or delete it
Postconditions(s)	The system will record the number of chat messages between two users and the total active chat time
Use Case Diagram	3.1.6

1.1.7 Previewing Suggested Upcoming Concerts

Title	Previewing Suggested Upcoming Concerts
Description	Users preview suggested upcoming concerts upon messaging a match.
Priority	3

Precondition(s)	The number of chat messages between two users exceeds a certain value, or the total active chat time exceeds a certain value
Basic Flow	1. If either of the two condition exceeds a certain value, the system will recommend the closest concert to both users 2. A brief message regarding the concert will appear on the user's chat screen, and the user can choose to click on it or turn it off. 3. If the user clicks in, he or she will be taken to a screen introducing the upcoming concert near both of them
Postconditions(s)	Users can choose to stay in the chat screen and continue chatting or go back to the seeking page
Use Case Diagram	3.1.7

1.2 Non-Functional Requirements

1.2.1 User Registration Load Speed

Title	User Registration Load Speed
Description	When registering with Google or Facebook, the third-party login should load within two seconds.
Priority	4
Applicable FR(s)	1.1.1

1.2.2 User Profile Page Load Time

Title	User Profile Page Load Time
Description	User profile pages are created and load within two seconds of new users registering.
Priority	3

Applicable FR(s)	1.1.2

1.2.3 Login Page Security

Title	Login Page Security
Description	User login data will be encrypted.
Priority	1
Applicable FR(s)	1.1.3

1.2.4 Preferences Matcher Compatibility

Title	Preferences Matcher Compatibility
Description	Users match with others based on a user-defined percent compatibility threshold
Priority	2
Applicable FR(s)	1.1.4

1.2.5 Seeking Page Usability

Title	Seeking Page Usability
Description	Users do not see previously-disliked users on the seeking page.
Priority	1
Applicable FR(s)	1.1.5

1.2.6 Matches Page Security

Title	Matches page security
Description	User matches and match chats will be confidential.
Priority	1

Applicable FR(s)	1.1.6

1.2.7 Suggested Upcoming Concerts

Title	Suggested upcoming concerts
Description	Users expect to see concerts close to their location based on their artist, genre and concert venues preferences.
Priority	3
Applicable FR(s)	1.1.7

2. System Constraints

2.1 Tool Constraints

2.1.1 Mobile Application Framework Constraint

Title	Mobile Application Framework Constraint
Description	We will be using Firebase for the backend.
Priority	1

2.2 Language Constraints

2.2.1 BackEnd Language

Title	BackEnd Language

Description	Backend will use Java.
Priority	1

2.2.2. FrontEnd Language

Title	FrontEnd Language
Description	Frontend will use Dart.
Priority	1

2.3 Platform Constraints

2.3.1 iOS

Title	iOS
Description	App must run on iOS.
Priority	0

2.4 Hardware Constraints

2.4.1 iPhone Required

Title	Devices required
Description	User must have an iPhone to access the app.
Priority	0

2.5 Network Constraints

2.5.1 Internet Required

Title	Internet Required
Description	Users must be connected to the Internet via data or wifi to access the app.
Priority	0

2.6 Deployment Constraints

2.6.1 FireBase Deployment

Title	FireBase Deployment
Description	This service will be deployed using FireBase, a development platform for building secure, scalable mobile application
Priority	1

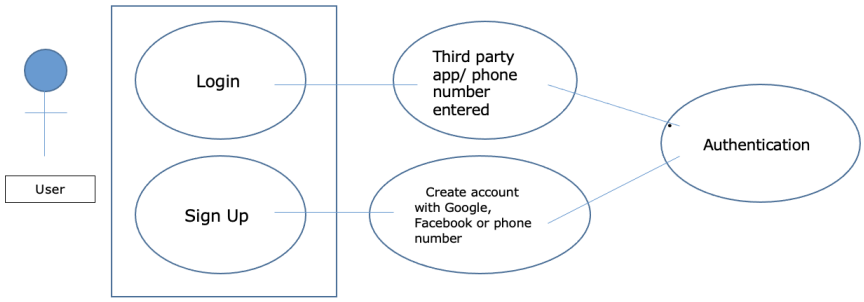
2.8 Budget & Schedule Constraints

2.8.1 Design and Requirement Schedule

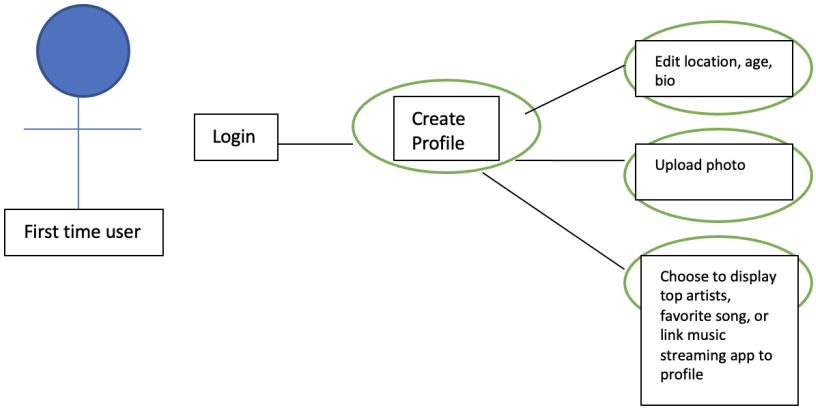
Title	Design and Requirement Schedule
Description	The design and requirements of the app must be completed in three months.
Priority	0

3. Requirements Modeling

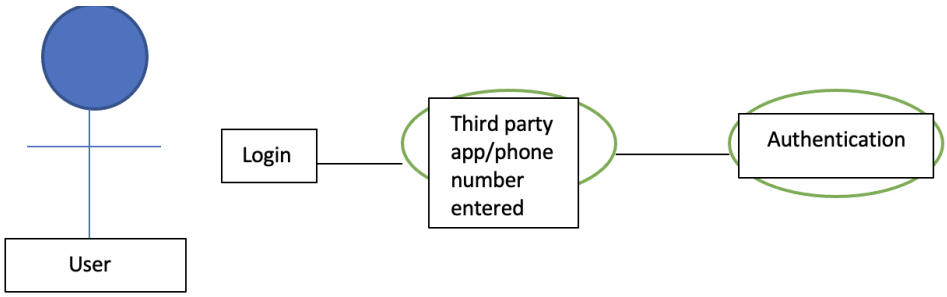
3.1.1 Creating User Account



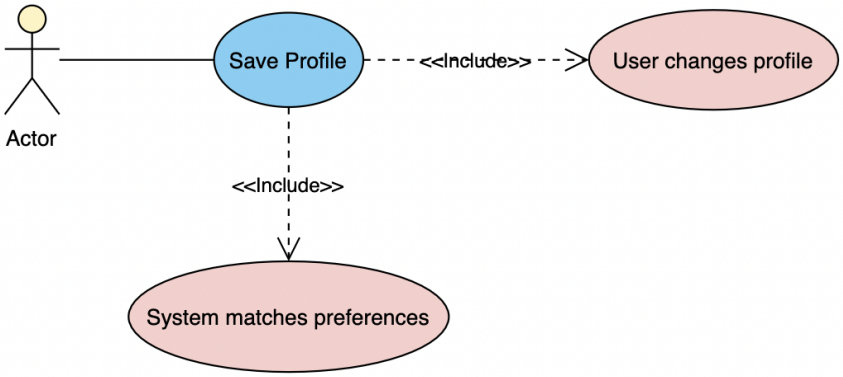
3.1.2 Creating Profile



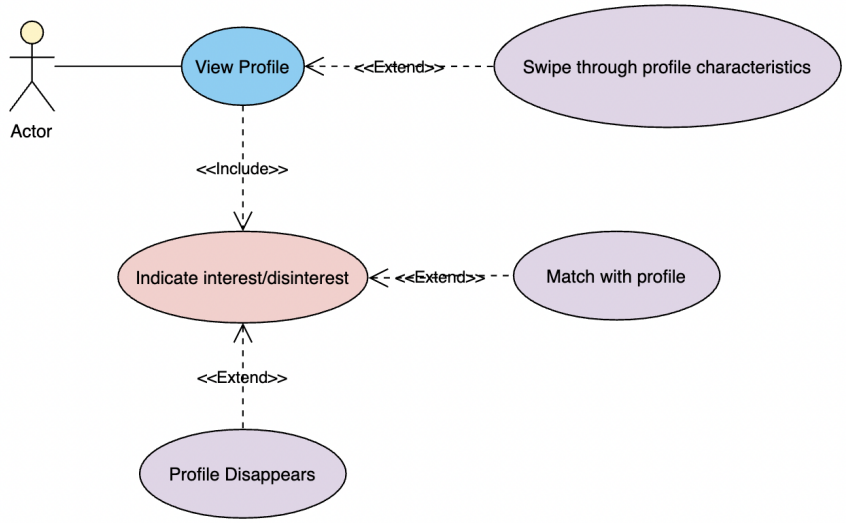
3.1.3 Logging In



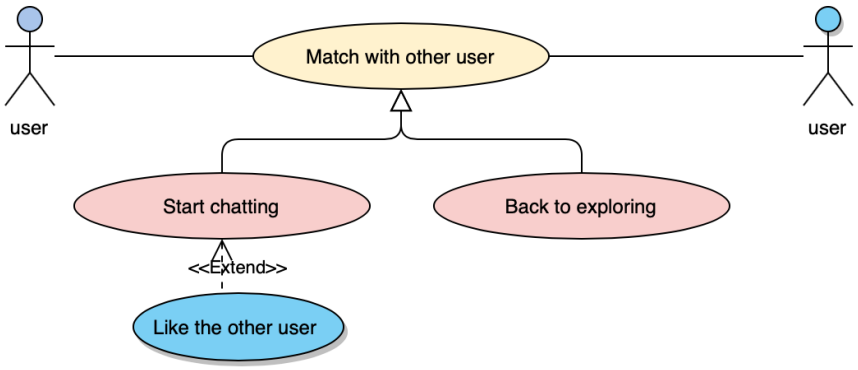
3.1.4 Matching Preferences



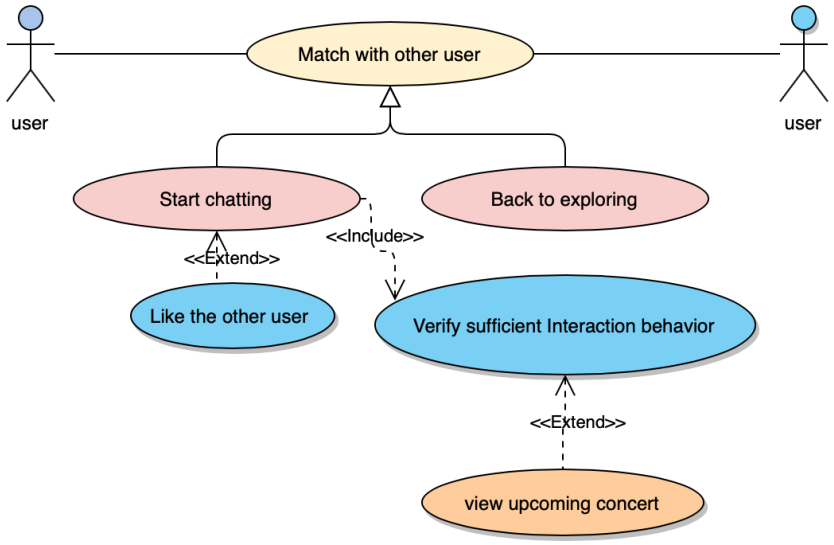
3.1.5 Users Exploring Profiles



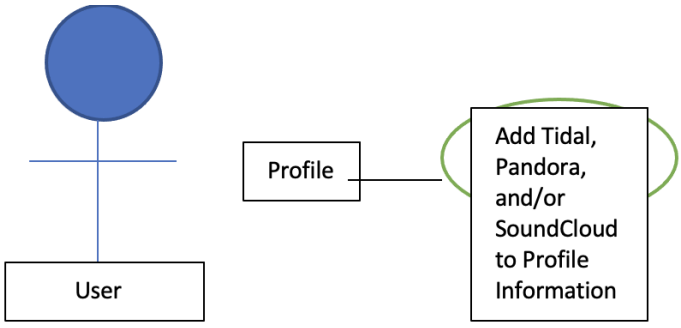
3.1.6 Messaging Matches



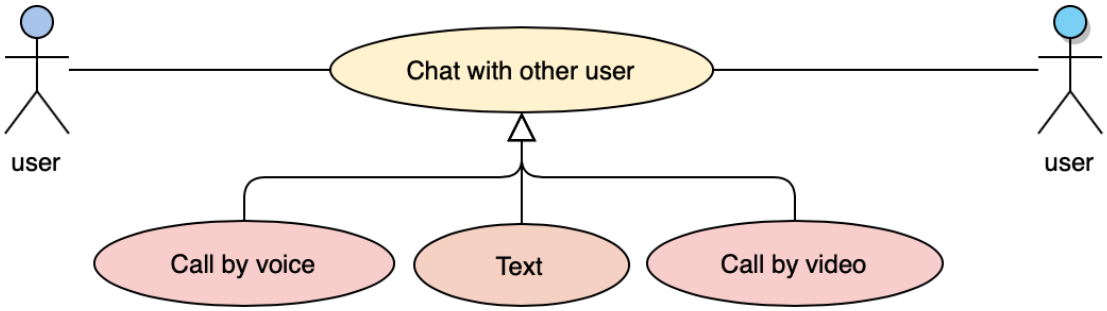
3.1.7 Previewing Suggested Upcoming Concerts



3.1.8 Adding additional music streaming services for users



3.1.9 Adding phone and video calling capabilities



4. Evolutionary Requirements

4.1 Functional Requirements

4.1.1 Adding additional music streaming services for users

Title	Adding additional music streaming services for users
Description	Users add their information from additional streaming services like Pandora or Tidal in their profile
Priority	3
Precondition(s)	User logs in or registers and enters the profile page.
Postconditions(s)	Users save their profile, executing preferences matching on nearby users.
Use Case Diagram	4.1.1

4.1.2 Adding phone and video calling capabilities

Title	Adding phone and video calling capabilities
Description	Users chat with matches through the app’s voice calling and video calling features.
Priority	2
Precondition(s)	Both users have liked each other's profiles, creating a match between them.
Postconditions(s)	The system records the number of chat calls between two users and the total active chat time
Use Case Diagram	4.1.2

4.2 Non-Functional Requirements

4.2.1 Music streaming service connection speed

Title	Music streaming service connection speed
Description	When connecting to third party music streaming platform, the platform will load in two seconds
Priority	3
Applicable FR(s)	4.1.1

4.2.2 Phone and video call encryption

Title	Phone and video call encryption
Description	Contents of users’ phones and video calls are encrypted
Priority	3
Applicable FR(s)	4.1.2