Tinder Clone

Software Requirements Specification

Revision History

Date	Revision	Description	Author

06/10/2021	0.1	Initial Version	Jaideep,Chris, Karla
_06/14/2021	0.2	worked on purpose, overall description, functional requirements and non-functional requirements	Jaideep, Chris, Karla
06/15/2021	0.3	Added UML, Case specification, and sequence diagrams. Revised functional requirements, non functional requirements.	Jaideep, Chris, Karla
06/22/2021	0.4	Updated different module requirements and how they interact	Jaideep, Chris, Karla

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1. Purpose

1.1. Scope

This document outlines the requirements for the Tinder Clone Application (TCA).

1.2. Definitions, Acronyms, Abbreviations

TCA - Tinder Clone Application

PNG - Portable Network Graphics

JPEG - Joint Photographic Experts Group

1.3. References

Use Case Specification Document – *uchl_specs.pdf*

UML Use Case Diagrams Document – *uchl_diagrams.pdf*

Sequence Diagrams – *procedural_flow.pdf*

1.4. Overview

The Tinder Clone Application is a piece of software that allows users to create dating profiles, find other users' profiles within a given geographic range and express or deny interest in profiles via a swipe-approval system. As COVID 19 maintains its hold over the world and online dating picks up in popularity, more and more people are seeking out new ways to connect with others.

2. Overall Description

2.1. Product Perspective

The system will be designed similarly to how many dating apps are now created. Users will be prompted to swipe right and swipe left and once both users have swiped right this will create a match. This is very similar to how Tinder is working and we will be mimicking their model.

2.2. Product Architecture

The system will be organized into 3 major modules: the Login module, Match module, and DataStore module.

2.3. Product Functionality/Features

The high-level features of the system are as follows:

- Create Profile: The user is able to create a profile with the system. The profile includes pictures (minimum 1) and additional information
- View potential matches profiles, swipe right (yes) / left(no)
- View all past and current matches

2.4. Constraints

2.4.1: The system will be completed by July 26.

3. Specific Requirements

3.1. Functional Requirements

3.1.1 Common Requirements:

3.1.1.1 Home Screen- Once a user is logged in, the Home screen will show. Home Screen includes a gender preference option (Male, Female, Other) and User will match with the opposite gender by default, this can be changed later. (M-F), (O-O). Users will be allowed 3 profile photos, 1st profile photo will be viewed as the main photo and is what the user will see when logged in. User's full name, city name, gender, age, and description (200 chars max) will be displayed on the home screen as well. Pencil Icon will be present once clicked, the user will have the option to edit photos and personal information on the home screen.

3.1.1.2 Login Screen- User is prompted to enter in username and password when application is opened. 10 Char max for username and 15 char max for password. Users will also see a submit button once username and password is entered. Users will also see a Register button in order to register to create a username and password.

3.1.1.3 Match Screen- User will default be shown matches from the opposite gender. It will be organized by location, closest user by location will be shown first and then further away users will be shown. Once a user has matched (both users have swiped right on each other) a pop up window will be displayed "Congratulations you've matched!". User will then have an option to keep swiping button which will put the user back into the match screen. A your profile button will be present on the match screen as well, once clicked the user will go back to their Home Screen. A logout button will also be present, once clicked the user will go back to the Login Screen.

3.1.1.4 View Match Screen- Once a user has matched, all of their matched users will be present in a view match screen. In the view match screen users will see a search bar in which they can search through their matched users. Users will then be able to click on a matched profile and be able to view their home screen. The user will not be able to edit the matched user's home screen, it will be in a view only mode. Users will then have the option to scroll through the matched user's pictures and information. This will only become available when both users have swiped right on each other.

3.1.2. Login Module Requirements:

3.1.2.1 User will create a minimum of 5 chars and a maximum of 10 chars, alphanumeric string for their username. All chars will be included (special chars) and a 15 char password. Passwords will be alphanumeric as well. Minimum of 7 chars maximum of 15 chars

3.1.3. DataStore Module Requirements:

3.1.3.1 USER DATABASE:

The User database would consist of the account information (user ID, login username, and login password). The User database would then get stored into a main database. It will be stored in the main database once the user has registered their account info.

3.1.3.2 PROFILE DATABASE

The Profile database would consist of all the users specific profile information. This would include up to 1 profile pic for each user, full name, location, gender preferences, and age. The Profile database would also get stored into a main database.

3.1.3.3 MATCH DATABASE

The Match database is used in order to track the user choices when swiping right or left. Since each user will have a specific user ID, each swipe that a user does to another user will be tracked as either right or left. If the user ID swipes left on the other user who has not swiped with that user ID, then a match will not occur. If both user IDs swipe right on each others user ID, then a match will occur. The match database will keep track of all swipes a user has done, left and right.

3.1.3.4 LOCATION DATABASE

The Location database is used to store pairs of cities and the distance between them. These values will be used in filtering potential matches.

3.1.4. Match Module Requirements:

3.1.4.1 Users will be shown profiles of potential matches based on location and preference. The user will be able to see the potential matches profiles, which include pictures(minimum 1) and additional information. If the user swipes right,

the user is interested in the person presented. If the user swipes left, the user is not interested in the person presented. If the person presented has also swiped right on the user, the match will be presented in the matches section of the application. Users will be able to change their preferences using a filter. The preferences that the user will be able to modify include distance from 1-100 miles, this will be adjustable using a slider. The default distance will be set at 25 miles when a user registers their account. Users will also be able to select their gender preference using the filter. Default will be set to the opposite gender once the account is created. Users can choose to match with Males, Females, Other, or select multiple gender preferences to match with. Users can also select an age range with who they would like to match with. Users can adjust this slider from 18 years- 99 years of age. Users will be able to create their own minimum age and maximum age, only users between these ages will be displayed. Default minimum would be 18 and default maximum would be 30 years old.

3.2. Internal Interface Requirements

3.2.1 The system will track user choices when swiping right or swiping left, this will be stored in a text file which gives the full description of the swiped user. Full name, location, gender, yes or no (swiped right means yes or swiped left means no). This text file will be updated daily at 10:00PM PST with all of the user choices which were swiped on earlier in the day. Each user will have their own individual text file of all the people they swiped on during the day. The text file will be distinguishable from each other by the user's username.

3.2.2 The system will create a feed which keeps track of all the usernames which have been registered with the application. Everytime a new user is registered the database will need to be updated with the new user’s username.

4. Non-Functional Requirements

4.1. Security and Privacy Requirements

4.1.1: The system only allows new users to create an account if their age is 18+.

4.1.2: The system allows users to view profiles only when logged in or if they create an account.

4.1.3: The system shall allow the users to only edit their own profile and not other users profile.

4.2. Environmental Requirements

4.2.1: The system must have network access at all times.

4.3. Usability Requirements

4.3.1: The system requires the users to have a minimum of 1 picture

4.3.2: The system shall have access to the location of the user at all times when the system is being used.

4.4 Performance Requirements

4.4.1: The system must show matches in 4 seconds after user logs in and requests to find matches

4.4.2: The system must keep track of user's right and left swipes