

Registration

General

Description

Normal login/register page
Implemented with basic Firebase Auth

Tech Stack

Firebase, Android Studio (Java)

Questionnaire

General

Description

The questionnaire will show up every 24 hours to better capture user's emotion
Questionnaire are designed for better match making and character creation

User Privacy

Data generated from this questionnaire will be only used for match making and will not be stored.

Tech Stack

Python, Flask, Android Studio (Java)

Technical Details

Overview

The world of recommendation systems can be roughly divided into content-based recommendation and collaborative filtering. In content-based recommendation, if a user likes a particular item, similar items are recommended. By contrast, collaborative filtering is based on shared preferences among users. For example, if user A likes apples, bananas, and kiwi, and user B likes apples, bananas, and mango, it's likely that A and B share similar tastes. Therefore, A might enjoy mango, while B might like kiwi.

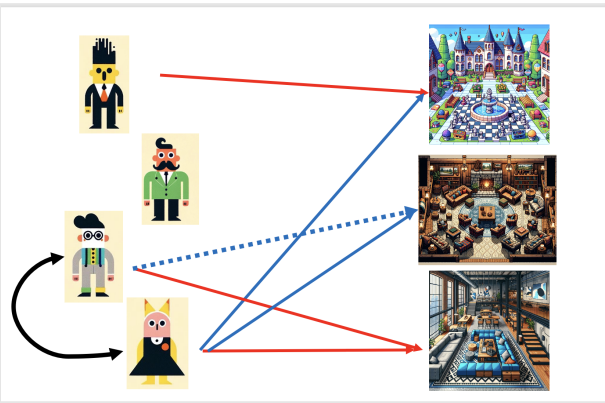
This project delves into the realm of collaborative filtering, applying machine learning and optimization algorithms to demonstrate how Vtalks's mobile app effectively matches each user to a room that would capture their preferences.

Technical Details and Algorithms Used:

In our system, each user's information is encapsulated in a vector representing their mood, expression styles and preferences in various areas like how they view their journey. Similarly, each room's profile is embedded, capturing additional features such as the thematic design of each place. The collaborative filtering model (CF_model) is developed using TensorFlow's sparse tensor and Matrix SoftImpute algorithm. It will be trained in the following logistics: a) loss = mean square loss from actual user feedback, b) regularization parameter = gravity model, c) hyperparameter tuned with a batch size of 1/20th of the entire dataset.

Waiting Page

Recommendation System visualization



General

Description

Loading Page
Provide users more context about this fictional world and loading neccessary info

Logistic

Character introduction page and different lounge will show up in random order while loading

Tech Stack

Android Studio (Java), Firebase

Lounge

General

Description

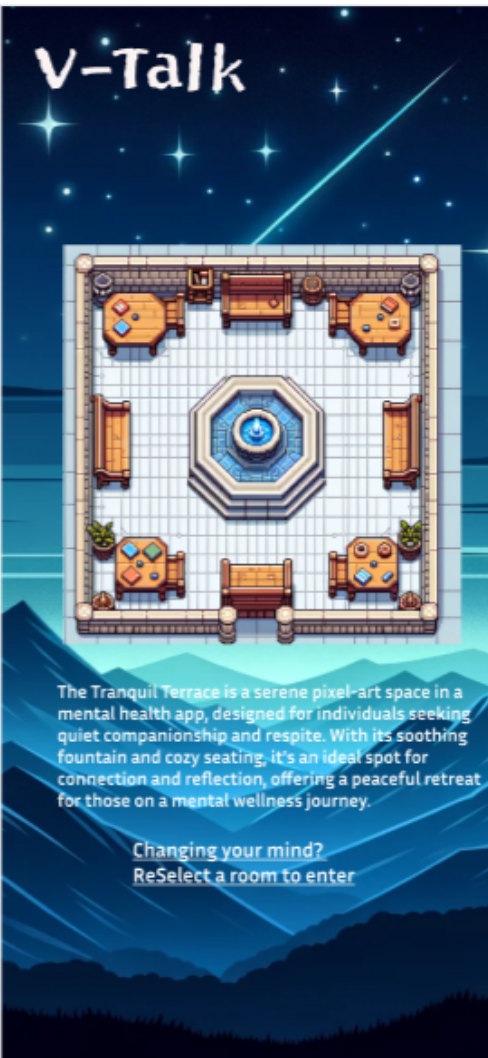
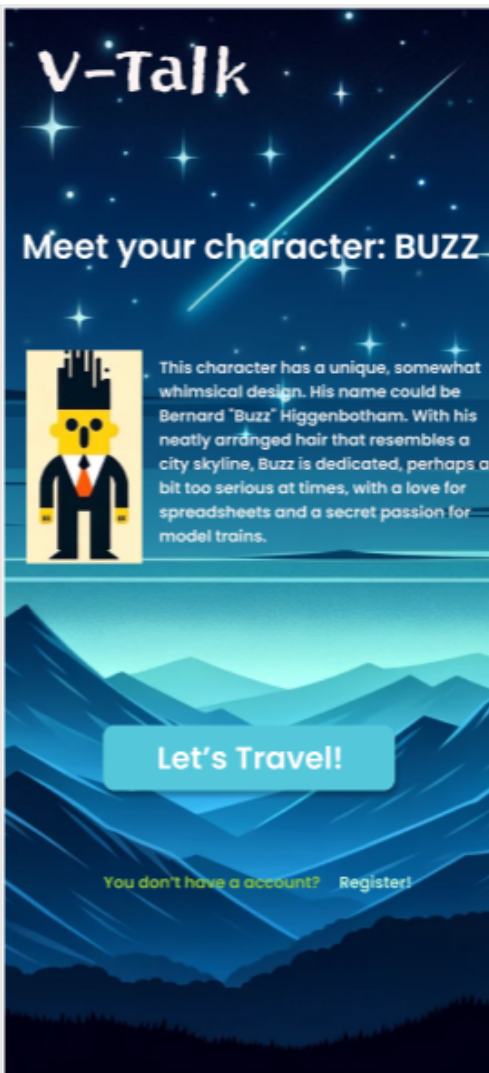
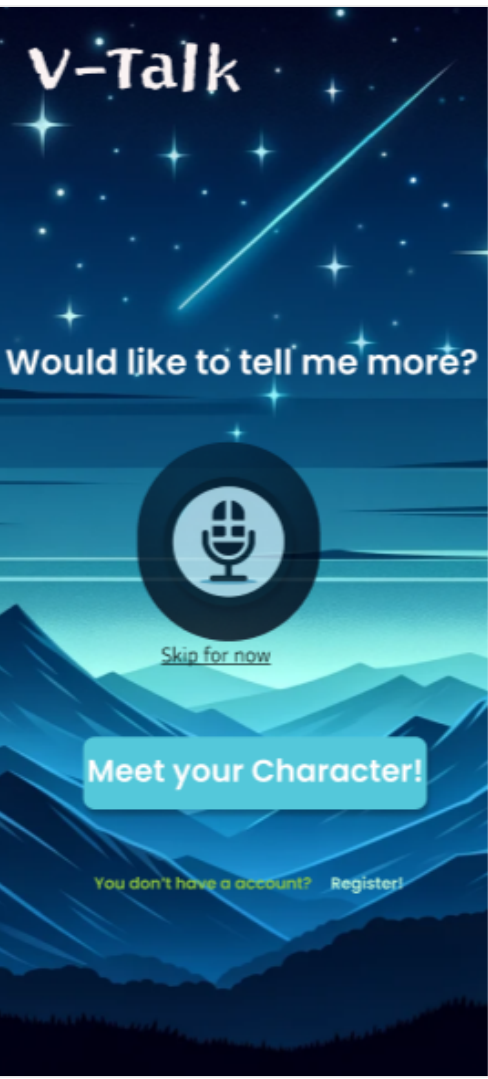
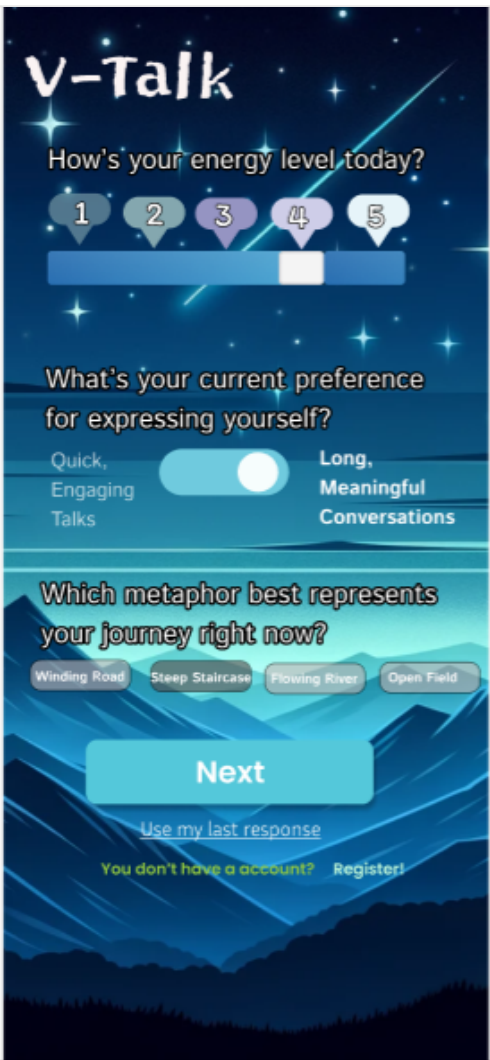
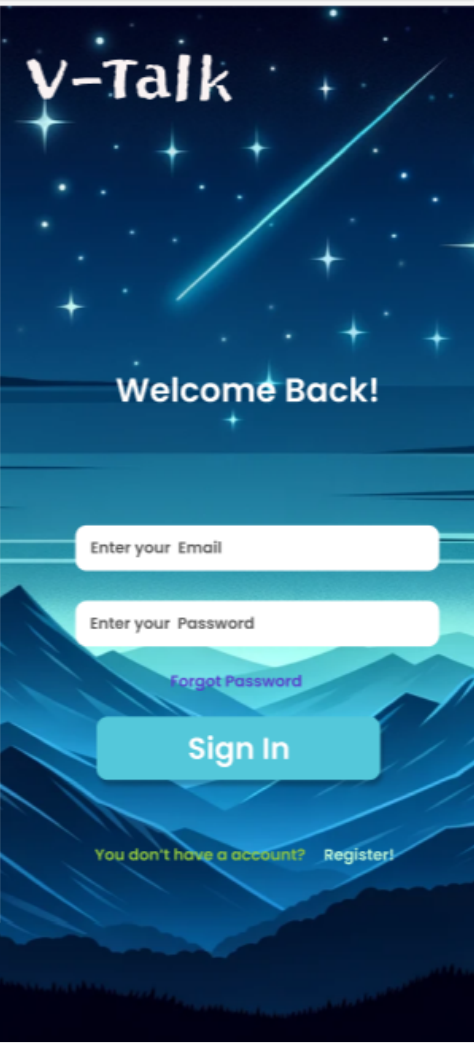
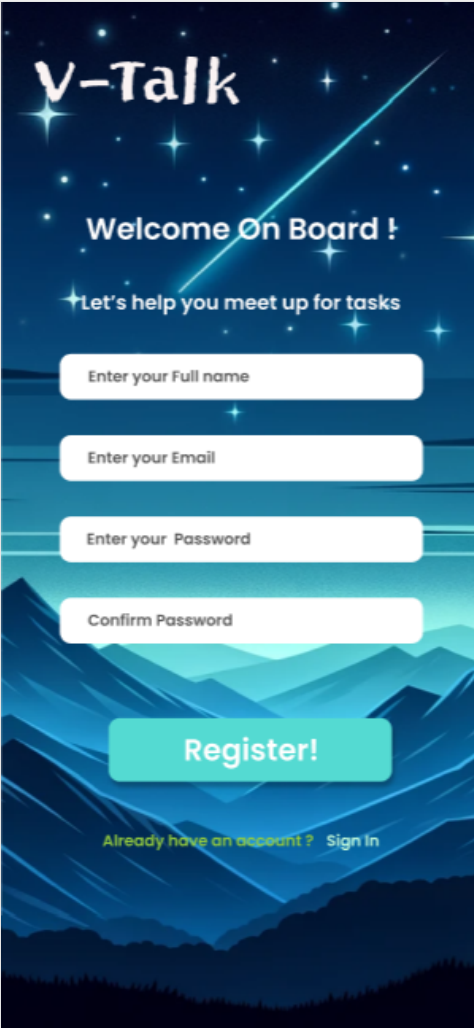
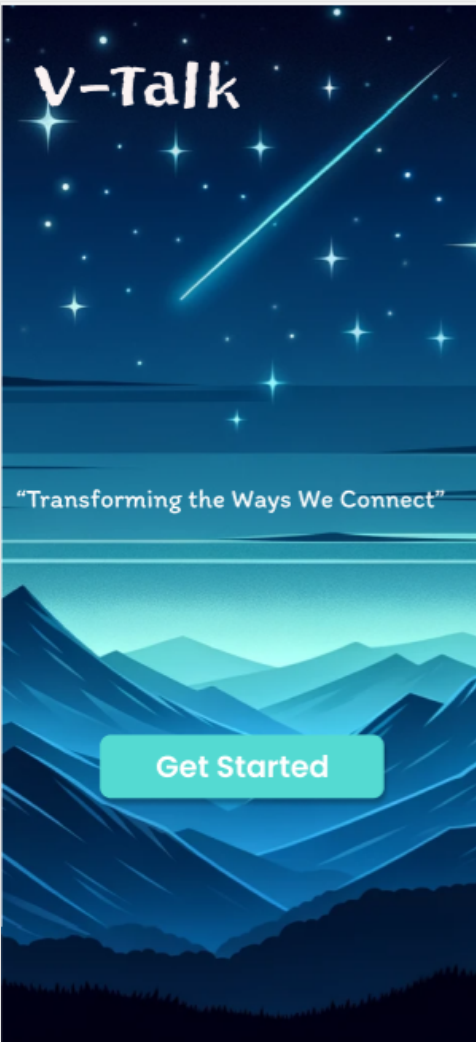
Main activity space for users to meet with each other

Logistics

An audio chat will start when two character get close to each other

Tech Stack

Android Studio (Java), Firebase, <Audio and Fake Voice Tool (Not Implemented)>



Audio chat will start when two character get close to each other.

You can choose your own character voice

