



Parshvanath Charitable Trust's
A. P. SHAH INSTITUTE OF TECHNOLOGY, THANE
(All Programs Accredited by NBA)

Department of Information Technology



Developing Smart ML Based Recommendation System

Group No. 27

Sakshi Naik-17104059

Sayali Phowakande-17104056

Arjun Rajput-17104068

Project Guide and Coguide

Prof. Apeksha Mohite

Prof. Geetanjali Kalme

Contents

- Introduction
- Objectives
- Problem Definition
- Technological Stack
- Review Suggestions (Given in Last meeting)
- Proposed System Architecture/Working
- Prototype Design Demonstration
- Implementation Status
- Status of Paper Draft & Targeted Conference

Introduction

- Rapid development of mobile devices and internet has made possible for us to access different music resources freely.
- Due to the increase in the number of mobile users, developing a Smart recommendation system can also increase the audience for the market which is based on music.
- The reason behind developing the recommendation system is that it will help users to get personalized results.
- Thus, there is a strong need of a good recommendation system.
- Here we are developing a Smart Recommendation system which will recommend Music as well as video format of playing music, To make it more efficient we are integrating it with voice-assistant.

2. Objectives

1. To build Cross platform application
2. To build a hand-free application.
3. To keep a track of frequently played music.
4. To provide recommendations based on users' preferences .
5. To provide suggestion for video link of played music.

Problem Definition

Problem Definition:

1. The number of music available exceeds the listening capacity of a single individual.
2. Therefore it is sometimes difficult to choose from millions of music.

Problem Solution:

1. To manage this user needs a recommendation system which can help their user to introduce new music by giving quality of recommendation.
2. Our system is developed as a music with its videos recommendation system that can give recommendations based on similarity and rating features.

Technology Stack

- **Frontend:**

- Flutter

- **Backend:**

- Firebase

- BigQuery

- TensorFlow

- **Algorithms :**

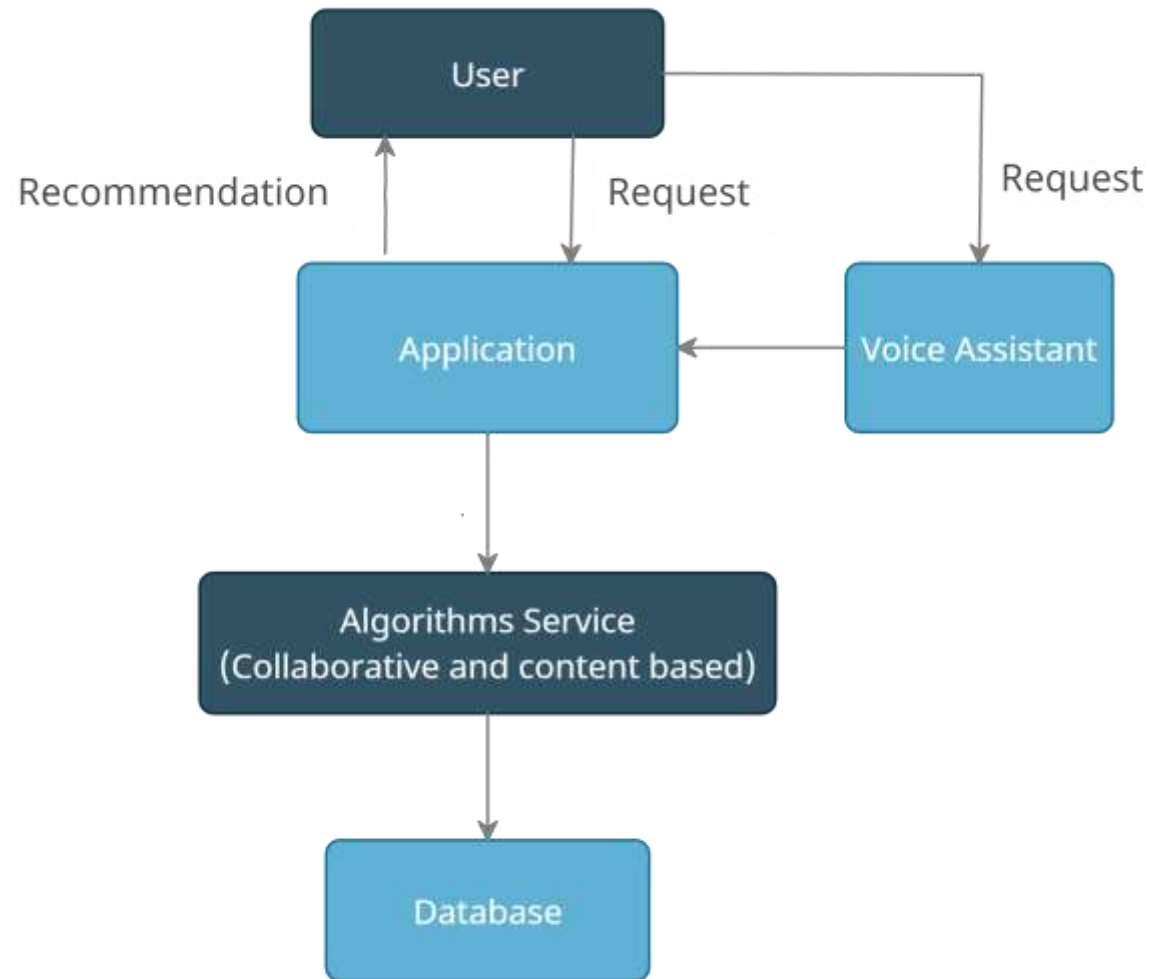
- Hybrid Algorithm (Collaborative Filtering and content based)

- **AI Voice Assistant** :DialogueFlow-Flutter Library

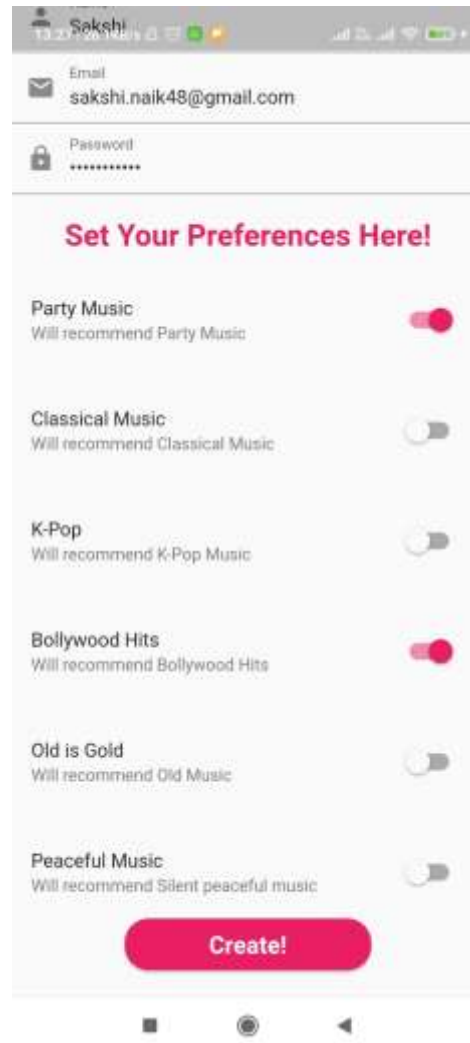
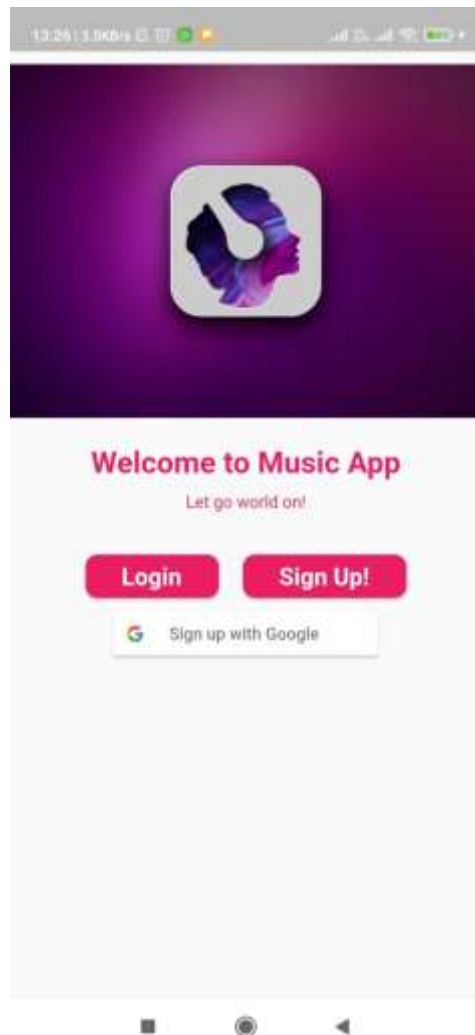
Review Suggestions (Given in Last meeting)

1. Target Standard Publication.
2. Objective should be clearer.
3. Modify implementation of chatbot.

Block Diagram to propose project Idea



Prototype Design Demonstration



Implementation Status

1. Completed With Login and Sign Up UI for user with collecting their preference.
2. UI Music Player and Video Link Recommendation is being Done.
3. Firebase for Database is being created but while connecting it modules pages start rendering.

Publication

1. **Submitted**-7th International Conference on Data Science and Machine Learning Applications (CDMA 2022)

Thank You...!!