

**SULEYMAN DEMIREL UNIVERSITY
ENGINEERING FACULTY**

CSS 348 - Advanced Database Management Systems

Project documentation

Checked by: Yesdaulet Izenov

Made by: Taimanov Bauyrzhan

Kanat Seitov

Almaty, 2020

Structure:

- Abstract
- Introduction
- Aim and objectives of research
- Background Review
- Methods and Materials
- Data and Results
- Discussion
- Conclusion
- References

- ***Abstract***

Nowadays we have a different numbers of music streaming platforms, they become more user-friendly, they recommendation system become more accurate, but what is in our industry, we don't have analogs and we think it can become a problem when we don't service anything so in this part of industry we want to create a platform with good service, design and good recommendation system. The idea of the project is to create a good platform to listen music. The main aim is to popularize kazakh culture. I guess it is very relevant, just because we have many good artists in our country, the quality of the music is growing very high. Early, listening to kazakh music was not cool for our people, especially in the young generation. But nowadays, many things have changed, we have a large number of excellent artists on the territory of Kazakhstan, and we must support them. Mobile app can change many things, with recommendation systems, good databases and wonderful design, popularization of the kazakh music will grow, I guess

Key Terms: music recommendation, machine learning, Oracle Database.

- ***Introduction***

We are going to create a music application, where every kazakh citizen can listen to songs of our country. Honestly, nowadays, I don't see good kazakh service, where we can listen to music of our guys. I think, if we want to improve our culture we must support our artists and give them a good platform to realize their own talents. Also, our knowledge can provide a good mobile app with the recommendation system, and every user can listen to their favorite music, and we can get loyalty from people, because they can skip unlikely songs and listen to only music that they prefer.

Music can be recommended with the different methods as a genre, region, language, artists etc. Using these parameters, we can create a machine learning model or neural network that can predict your musical choice in the music. Machine learning in this task will not be used like a just tool, it gives good opportunity to people for listening, and makes the main thing, why people want to use our app. In other services, it can be lost with the other country's song, don't give you good depth in the listening. Our service contains kazakh songs and another that give possibility for good

matches in the prediction model.

We can cluster music in different directions, like old music, rap, pop or new generation music, because of it every user can find their own likely songs. After this app, I guess, listening to our country's music will grow, because we have many good artists that appear only recently.

- ***Aim and objectives of research***

Aim: To develop a database with music and prepare recommendation system algorithms for users.

Objectives:

Collect music data from different sites

Cleaning data and fit some null data

Upload audio to server

Prepare database

Develop a mobile app

- ***Background review***

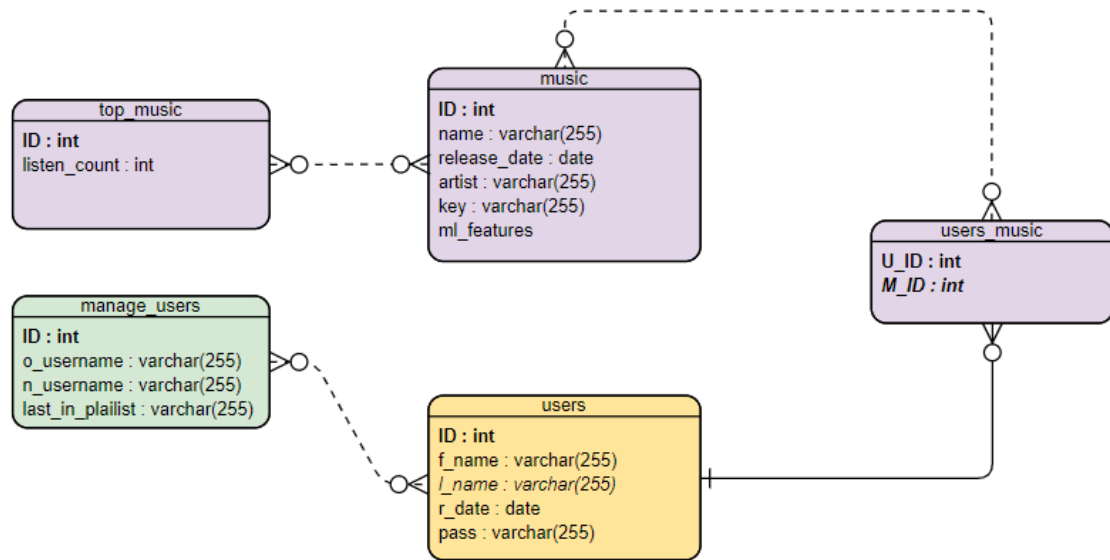
We notice that our country doesn't have a good mobile application that contains our kazakh music with a recommendation system. We want to solve this problem and provide for our country a wonderful platform to use. Our culture growing up, and as a software developer we must to help him realize their talents.

- ***Data and results***

We found a large dataset of music form Kaggle so for testing our platform we will use it Link to database:

<https://www.kaggle.com/yamaerenay/spotify-dataset-19212020-160k-tracks?select=data.csv>

in our project we use 5 tables: users, music, manage_users, top_music, users_music manage_users table will store data about actions of our users: log in, log out, adding songs in playlist and etc. music table contain all our music library and some features to recommendation algorithm users table contain all registered users with unique id users_music - table to store music that have special user, this table is combination of user id and music id top_music table - this table is have 2 features, id of music and count how many times this music is listened. This table contains top 50 musics from music table, in music table it will given by popularity.



- **Discussion**

This study must be interesting for many music labels, and can improve national culture music, and give opportunity for many people. We provide people with a good online service to listen and give feedback about songs.

- **Conclusion**

In conclusion, we are going to make a big music service for our people. To improve loyalty to people for our music, and kazakh nation can be interested in our country, and know that all the talents are not only outside of our country.

- **References**

0. [Swift](#)
1. [Node.js](#)
2. Oracle
3. Kaggle Dataset