

Music Recommendation Engine



The global Digital Music market size is expected to reach **\$37.8 billion** in 2026.

On Spotify, **> 33%** of all new artist discoveries happen through recommendation sessions.

Digital Music revenue has increased by additional **2%** per year because of the COVID-19 pandemic.

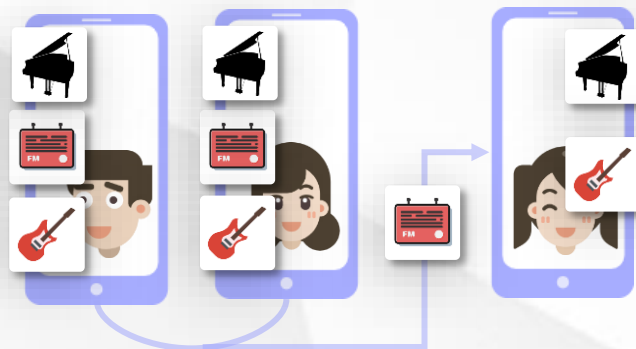
Why Music Recommendation?

An ever-increasing share of music consumption and discovery is mediated by AI-driven recommendation systems. Music platforms can rely on music recommendation system to:

- **Hyper-personalize recommendations**
- **Boost content visibility**
- **Enhance user engagement & conversion**
- **Amplify marketing and sales**

What Is It?

The availability of digital music currently is abundant compared to previous era. One is simply not able to sort out all music to find the best taste. **A music recommender system can search in the music libraries automatically, detect users with similar tastes, then offer the appropriate songs to users.**



Why Big Data?



Traditional Database Management:

- On Spotify, there're over **82 million tracks**, **422 million users** worldwide
- Difficult to provide real-time recommendations
- Will take **weeks** to compile this much data and recommend next songs, artists
- Computation and storage costly

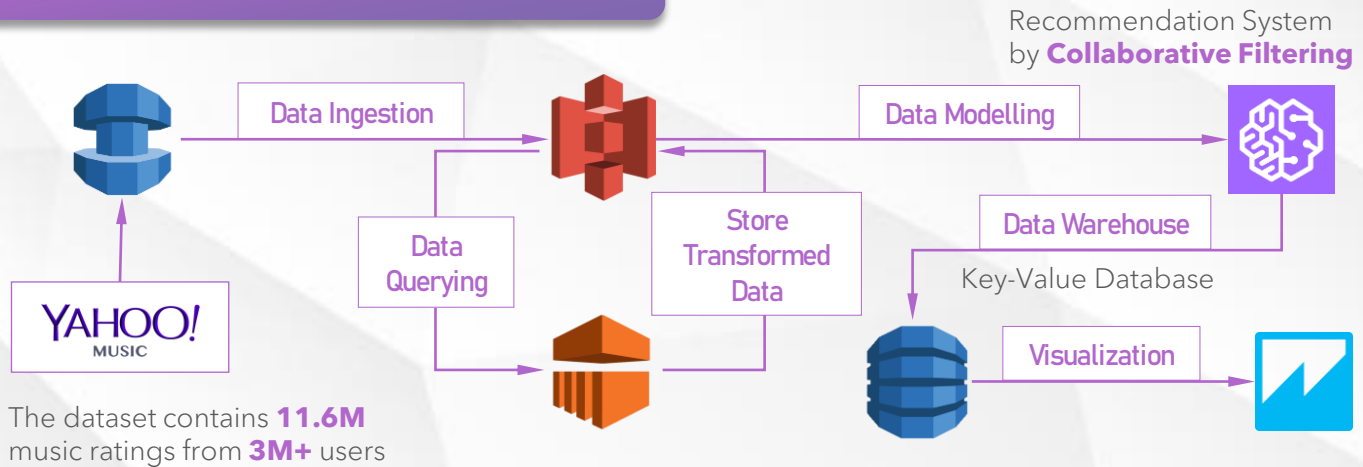


Effective Big Data Management:

- Able to store, process and visualize large quantities of data at high speed
- Build the entire recommendation modelling pipeline **in 2 mins**
- Complete analysis for 3M+ lines of data **within 10mins**



How It Works?



Why Is It Robust?



Scalability

- Adding nodes is just dollar away
- Automatically adjusts capacity to maintain steady, predictable performance to optimize cost efficiency



Durability

- AWS infrastructure is platform agnostic
- Able to preserve, retrieve, and restore every version of every object that is stored



Security

- Provide encryption, key management and threat detection that continuously monitors and protect accounts and workloads

Future Steps



Potentials in ascending music streaming services

- Many smaller but upcoming music platforms are yet to adopt big-data driven recommendation engines
- Such shift can increase \$30M in revenue



Faster and real-time recommendations with streaming data

- AWS supports streamlined recommendations for exponentially increasing data

