

Software Requirements Specification (SRS) for MeloFi

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1. Project Overview

MeloFi is a cross-platform music discovery and streaming platform designed for both web and mobile devices. It allows users to explore, stream, and manage music seamlessly. Inspired by popular platforms like Spotify and SoundCloud, MeloFi aims to offer a personalized and social audio experience. The platform emphasizes user engagement, community-driven playlists, and intelligent music recommendations.

1. Goals and Objectives

- Build a user-friendly platform for discovering and playing music.
- Allow users to create, manage, and share playlists.
- Integrate social features like following other users and sharing tracks.
- Provide a responsive and visually appealing interface across devices.
- Support seamless music playback with high-quality audio streaming.
- Enable smart recommendations using user preferences and listening history.

1. Target Users

- Music enthusiasts seeking a modern way to discover and enjoy songs.
- Independent artists looking to share and promote their tracks.
- Curators and playlist creators interested in building communities around music genres.
- Listeners who enjoy personalized and social listening experiences.

1. Core Features

- User Authentication:** Secure sign-up/login via email or social accounts.

- **Music Discovery:** Browse songs, albums, and artists by genre, mood, or trends.
- **Playlists:** Create, edit, and share playlists with the community.
- **Music Player:** Full-featured player with controls, queue, and repeat/shuffle options.
- **Follow System:** Follow users to view their activity and playlists.
- **Search Functionality:** Fast search with predictive suggestions.
- **Recommendations:** Personalized music suggestions based on listening patterns.
- **Offline Mode:** Save songs or playlists for offline listening (future feature).

1. Basic Tech Stack

- **Frontend:** React, Kotlin (Mobile)
- **Backend:** Flask
- **Database:** MySQL or MongoDB
- **Authentication:** Firebase Auth or OAuth 2.0
- **Cloud Storage:** AWS S3 or Azure for audio and media files
- **Streaming Service:** Integration with HLS or Web Audio API
- **Design Tools:** Figma for UI/UX design and prototyping
- **Version Control:** GitHub for collaboration and version tracking

1. Conclusion

The SRS document for MeloFi establishes the foundation for developing an engaging and robust music platform. By defining the project's purpose, audience, and requirements, this document ensures all stakeholders share a unified vision for delivering a powerful and user-centric music experience.