

Designing and Implementing An Android-Based Music and Karaoke Social Networking Application Using Firebase and Cloudinary

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Abstract

The rapid growth in popularity of music streaming and karaoke applications has broadened the perspectives of how users enjoy and interact with music. However, there are features that remain a gap between the two experiences. Most music streaming platforms nowadays lack of karaoke features, while karaoke applications often do not offer full music streaming features such as playlist creation or music discovery. To address this lack of features, this thesis proposes the development of a Kotlin-based mobile application that solves the gap by integrating music playback, karaoke functionality, and social sharing capabilities in a single application. By utilizing Firebase as the backend for real-time data management and user authentication, the application enables users to listen to a broad variety of music, sing along with synchronized lyrics, record their singing, and share it with friends, family, or even to the world. The approach involves designing a user-friendly and attractive interface, implementing audio handling for karaoke recording, and implementing social features such as friends to enhance user engagement. The application will be evaluated based on usability, performance, and user satisfaction. This thesis aims to develop an application that delivers a unified music experience that combines entertainment, creativity, and social interaction, offering a different perspective on how users engage with music in this era.

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It is my hope that this research will contribute meaningfully to the existing body of knowledge and inspire future inquiries.

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