Development of iShare Social Network Application on Android

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***Abstract*—This thesis presents the development of an iShare social network application for the Android operating system. The application allows users to connect, post images and articles, and follow other users. Firebase was used for data storage and retrieval, enabling data synchronization across devices and fast data access. The author faced challenges in optimizing application performance and user interface design, and the application was not fully optimized for different devices. The application successfully implemented core functionalities such as user registration, profile creation, and content sharing. However, performance optimization and user interface design were limited, and the application was not fully compatible with various Android devices. Future work will focus on developing the application for multiple platforms and improving its performance and user experience.**

***Index Terms*—iShare, social network, Android, Firebase, application development**

I. Introduction

The thesis provides an overview of the iShare social network application developed for the Android operating system. It discusses the rationale for choosing the topic, the objectives of the study, and an introduction to social networks, Android, and the technologies used in application development. The author, Tran Minh Tan, chose this topic to gain practical experience in developing a social network application and to contribute to the growing field of mobile social networking. The objectives of the study were to develop a functional social network application that could be used by a wide range of users and to explore the use of Firebase for data storage and retrieval. The author also aimed to improve the user interface design and application performance [1]. Published articles on the methods and subject of this project provide context for this English summary [2]. Published articles on the methods and subject of this project provide context for this English summary [3]. Published books on the methods and subject of this project provide context for this English summary [4].

II. Methods

The methods section details the requirements, use case diagrams, activity diagrams, class diagrams, sequence diagrams, and collaboration diagrams. The author used Java, Android Framework, Android Studio, Firebase, and GitHub Desktop to develop the application. The requirements were defined based on the core functionalities of a social network, including user registration, profile creation, content sharing, and user interaction. The author used UML diagrams to model the application's architecture and behavior. The application was developed using the Android Studio integrated development environment (IDE), which provided a comprehensive set of tools for building Android applications. Firebase was used for data storage and retrieval, enabling real-time data synchronization and fast data access. GitHub Desktop was used for version control and collaboration [1].

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III. Results

The author successfully developed the iShare application, which allows users to connect, post content, and follow other users. Firebase was used for data storage and retrieval, enabling data synchronization and fast access. However, the application faced challenges in optimizing performance and user interface design, and it was not fully optimized for different devices. The application implemented core functionalities such as user registration, profile creation, and content sharing. The author tested the application on multiple Android devices and found that it worked well on some devices but had performance issues on others. The user interface design was limited, and the application was not fully optimized for different screen sizes and resolutions. The author plans to address these limitations in future work [1].

IV. Discussion

The application's performance optimization was limited, especially as the number of users increased. The user interface design was also a challenge, and the application was not fully optimized for different devices. The author plans to develop the application for multiple platforms and improve its performance and user experience. The author faced several challenges during the development process, including optimizing the application's performance and user interface design. The author also encountered issues with data synchronization and fast data access. The author plans to address these challenges by using more advanced optimization techniques and improving the user interface design. The author also plans to develop the application for multiple platforms, including iOS and web, to increase its reach and user base [1].

V. Conclusion

The author successfully developed the iShare application for the Android operating system. The application allows users to connect, post content, and follow other users. However, the application faced challenges in optimizing performance and user interface design, and it was not fully optimized for different devices. Future work will focus on developing the application for multiple platforms and improving its performance and user experience. The author gained valuable experience in developing a social network application and contributing to the growing field of mobile social networking. The author also learned the importance of optimizing application performance and user interface design and the use of Firebase for data storage and retrieval [1].

References

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