



# iLand Web Application

Author: Chanaporn Srivarom

Company: T.C.C. Technology Co., Ltd.

Advisor: Noparut Vanitchanant, Ph.D.



## ABSTRACT

This project focuses on developing and improving features of the iLand web application for land management for the TCC Group. My responsibility involved developing APIs to support a variety of new core features. These contributions included implementing systems for editing building information, displaying deed tax data, and developed the functionality for adding, editing, and displaying project details, as well as managing main-category and sub-category. Additionally, I also implemented a search for deed numbers and building names, alongside a management system for tracking building statuses during mortgage and redemption processes. On the technical side, the application utilizes a high-performance Go [1] backend powered by the Fiber [2] framework to ensure low latency and scalable API handling with PostgreSQL [3] as the database management for relational databases. The frontend was developed using React [4], providing a type-safe environment and a responsive user interface capable of managing complex data sets.

## INTRODUCTION

The storage of data on land, buildings, deeds, prices and tax information is not systematic, but scattered across multiple sources. It is managed by various parties, which leads to slow access, as multiple data managers must be contacted. Therefore, a web application was developed to eliminate this problem, which should provide a clear overview. In addition, the system enables the assignment of access rights to users based on roles, allowing data administrators from different departments to collaborate more efficiently.

## ARCHITECTURE



## CONCLUSION

The iLand web application is a system for accessing and managing land plot data, deeds, and buildings belonging to companies within the TCC Group. Users can view, edit, and manage various types of information comprehensively using just one single system. The features developed for the iLand web application have been tested to ensure the system accuracy and stability, and are now fully operational. The Implementation of the system improves land management efficiency, reduces delays caused by traditional paper-based document storage, and improves the TCC Group's operations more convenient, faster, and systematic.

## TECHNOLOGY



## REFERENCES

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- [4] Meta Platforms, Inc., "React - The library for web and native user interfaces," React. [Online]. Available: <https://react.dev/>