# **Tenancy Management System for Gun City Ltd**

Xicao Liu
Ara Institute of Canterbury charles.xicao.liu@gmail.com

Amit Sarkar
Ara Institute of Canterbury
amit.sarkar@ara.ac.nz

David Weir

Ara Institute of Canterbury david.weir@ara.ac.nz

## **ABSTRACT**

In this report we present the background, objectives, management methods and results of a web application project. The project was to develop a new module on a management system to help a local New Zealand business to better manage their properties. The project was managed using Scrum and Kanban methodologies, with the use of associated software help. The project was ultimately completed successfully and met all aspects of its objectives.

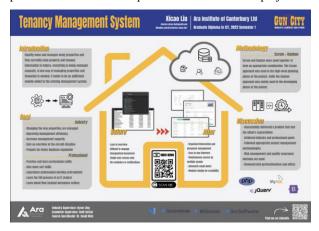
Keywords: Tenancy Management, Property Management, Web Application

#### 1. INTRODUCTION

Gun City is a firearms sales company based in Christchurch in the Canterbury region of New Zealand. It currently has nine branches operating in New Zealand. In addition to selling firearms, as part of the wider organization, owns and manages multiple properties. This project is intended to help staff manage properties and tenancies more effectively.

A management system is needed to store and make available the information and documents detailing tenancy agreements for a variety of New Zealand properties. The system is to be built on the existing internal management system. Improving efficiency, with clear and easily accessible information, and automating relevant processes.

The poster outlines the general information about the project, describes the background, objectives and results of the project and shows the results of the project. The methodology section introduces the project's management approach, which used a combination of Scrum and Kanban to manage the project. The poster also lists the techniques and tools used in the project.



This quality assured poster paper appeared at the 13<sup>th</sup> annual conference of Computing and Information Technology Research and Education New Zealand (CITRENZ 2022) and the 35<sup>th</sup> Annual Conference of the National Advisory Committee on Computing Qualifications [hosted in Christchurch], October 4 - 7.

# 2. THE PROJECT

The client used a file directory to store files and collection of distributed documents property information, tenancy information. The file directory was poorly organized, it was time consuming to search the needed documents, and when the staff is not on site, the files are inaccessible. All files were stored on one computer and cannot provide simultaneous access to multiple people. It was difficult to manage and lack an overview of the current situation.

For the client, the goal is to get a fully usable tenancy management system, information is stored on the server, interface clearly displays information on managed properties and tenancies, stores relevant documents in an organised manner, offers the possibility of simultaneous access by multiple people and access from any location, and provides automatic email alerts.

For the student, the goal is to gain the skills needed to make the transition from student to practitioner by undertaking industry exercises, and to demonstrate project management skills and professional competence by successfully completing the project.

After the project finished, the client received a new tenancy management module added to the current internal management system, where existing properties can be managed and tenancy agreements can be managed, and relevant managers will automatically receive reminders about tenancies. Information about properties, leases and tenants can be easily accessed from anywhere and documents are stored in an organized manner. Using this system will result in a significant increase in work efficiency and the automated reminders will reduce the occurrence of errors.

#### 3. METHOD

In this project, Scrum and Kanban were used together to form an appropriate combination. The Scrum approach was used in the high-level planning phase of the project, while the Kanban approach was mainly used in the actual execution phase of the project. This can be summarised as Scrum is used to manage the project and Kanban is used to manage the workflow. See Kanban (Kissflow, 2022), Scrum (Atlassian, 2022).

Jira is used to practice the Kanban method, which provides an intuitive visual panel, offers rich customisation, and provides sophisticated reporting capabilities. Jira also integrates well with the code management software SourceTree, making the code associated with each task easily accessible and improving the efficiency of quality assurance.

The finished product is a web application with a front-end written in standard HTML, CSS and JS languages, with some front-end frameworks applied such as bootstrap and jQuery.

the back-end is written in PHP using RestAPI and the database is MySQL.

## 4. CONCLUSION

The project successfully delivered a product that met the client's expectations and met the client's objectives. The product will become a tool that will be used by the client for a long time and will be the basis for further development.

Students were able to practise their professional skills and learn new ones through the project. In project management, not only did they practice the industry's proven

methodological framework, but also the concepts of risk management and quality management.

# 5. REFERENCES

Atlassian. (2022). What is Scrum? Retrieved from Atlassian: https://www.atlassian.com/agile/scrum

Kissflow. (2022, March 2). Kanban Methodology: The Simplest Agile Framework. Retrieved from Kissflow: https://kissflow.com/project/agile/kanban-methodology/