

## INTRODUCTION

### Background

Wildlife lookout Space is an elongated area/lane or group, the use of which is more open, a place to tend to an animal. One of its functions, namely in socioeconomic. Wildlife lookout Zoo Space, is as a medium of communication for an urban city, recreation areas, places for education, and research. In order to provide education to visitors, there is usually a label containing the name of the species in front of its cage. The existence of a tag or label on the zoo cage provides many benefits, but this also has a weakness, namely, how to burden the memory of the learner's capacity manually and the information provided is not enough. From the problems above, the writer has an alternative to create a collection of information systems data in zoo spaces based on QR Code to facilitate visitors in obtaining more information.

QR-code has several features, such as large-capacity data encoding, high-speed readings, small file sizes. QR-codes are more effective than selecting manual searches for learning regardless of the target number. The way this system works is that the user scans the QR-code installed in front of the animals cage, after the code is scanned the system sends information to the server and the information will come out, with that the process is considered complete. The proposed method is not only cheap and cost-effective but also helps users without experiencing any hassle. This system is expected to help visitors to get information quickly and easily. This system is made in the form of an Android-based information system. Therefore, when visitors want to see a collection of animals but are constrained by distance, time, or other, visitors can access it through the Android application via smartphones at home or anywhere with conditions connected to the internet.

### Problem Identification

Based on the background, the author can identify the problems for the development of this application, as follow:

- a) How to design an application that show animals information in Wildlife lookout zoos.
- b) How to implement QR code scanner in application
- c) How to add Multilanguage feature in application

### Purpose

The purpose of this system development are listed as follows:

- a) This application is used to give more information of animal in Wildlife lookout areas.
- b) One of the author goals is to raise awareness amongst public to understand the importance of animals and give them the ability to easily get information on animals.
- c) This application is used to educate the public on a strong emphasis on scientific research and species conservation.

### Limitation

In this final project, to get optimal results. Then it needs to be limited to what things will be researched and done. Problems will be limited to:

- a) This application can only be operated in a smartphone supports OS (Operating System) Android version 6.0 (Marshmallow) and above.
- b) Information used in system build for general purpose, not depend on one place.
- c) This application only support English and Indonesia language
- d) The application only can be used when the user's mobile phone is connected to the internet.

## Similar Software Analysis

The similarities and comparisons between GuineaZoo and Zoo application are as follows:

### GuineaZoo

GuineaZoo implementation images can be found on the implementation and testing chapter.

### Zoo Application

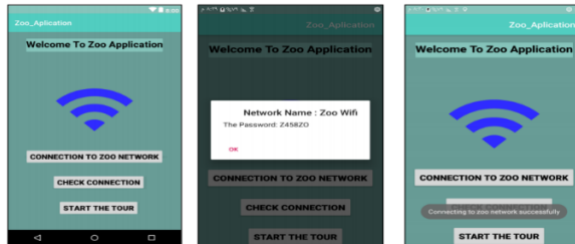


Figure 5.23 First image connecting to zoo's network, second image the network name and password third image check network.



Figure 5.24 Language Selection



Figure 5.25 First image Scan Button, second image Scanning Process, third get a brief information

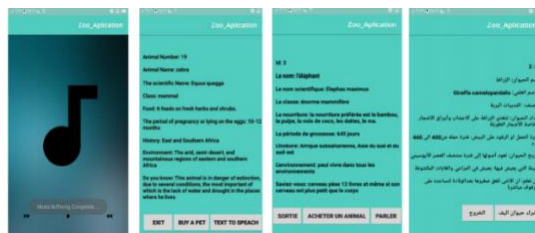


Figure 5.26 First play the sound, Second more information in English, third more in French, fourth more in Arabic

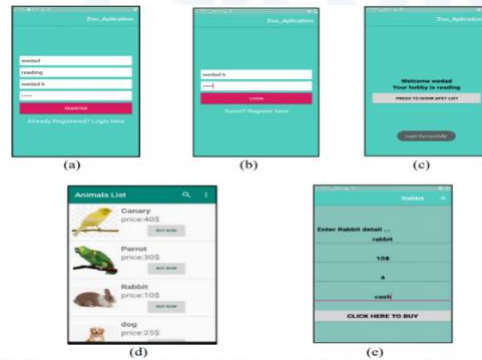


Figure 5.27 First image Registration, second image Login, third image Success Login, fourth image animal list, fifth image buys the pet.

### Comparison and Similarities between GuineaZoo and Zoo Application

- Zoo Application sells animal while as GuineaZoo shows the taxonomy of its animals which are categories into several parts
- Both the applications have multilanguage feature to include more user because zoo areas are widely known for tourist which mean different language is an advantage.
- Zoo Application play sound of animals to show their support to the disable people mainly blind while as GuineaZoo recommends such feature as a future work.
- Zoo Application scanning Qr code process takes time where as for GuineaZoo the process is easy and quick.
- Zoo Application shows less information after scanning the Qr code and GuineaZoo shows the taxonomy of the animal's Qr Code.
- GuineaZoo has a better graphical interface and user experience than Zoo Application because of the color and the positioning of most the buttons according to the author of this paper.

The idea of the application GuineaZoo is from several components of applications but mainly based on the analysis of Zoo Application and as the recommendation will state GuineaZoo will improve as time goes on.

#### Benefit

The Benefit of this research are as follows:

- This application can give more information of animal to visitors than common staring at the animal or from information given by the guiders of Wildlife lookout zoos.
- Since the information is common and not limited by one place, application can be used in many areas of zoo space or different country if expanded.

#### Writing Structure

For the systematical structure reason, this thesis is divided into six chapters, with an explanation for each chapter is as follows:

### CHAPTER 1. INTRODUCTION

In this chapter, the author discusses the background of the research, problem identification, limitation, purpose, similarities analysis with other software and benefits of the research.

## **CHAPTER 2. LITERATURE REVIEW**

This chapter discusses the fundamental theories that support and relate to this research.

## **CHAPTER 3. RESEARCH METHODOLOGY**

At this stage of the research methodology, the author discusses there are several stages, such as research flow, system development methods, research activity schedules, data collection methods, and types and sources of data. It also discusses the requirement of the development.

## **CHAPTER 4. ANALYSIS AND SYSTEM DESIGN**

This chapter discusses the analysis and design of the system; there are several stages, such as problem identification, system analysis, user requirements analysis, system design, and also system testing methods.

## **CHAPTER 5. IMPLEMENTATION AND TESTING**

This chapter discusses the implementation of the analysis and design of the system. Then, implementation processes into coding to produce a system that can be used by the user. Moreover, it also illustrates the user interface result of the system and conducts testing of the system to determine whether the system is working excellent or need improvements.

## **CHAPTER 6. CONCLUSION AND RECOMMENDATION**

This chapter contains the conclusions of this thesis and recommendations that are used as references for future development.

