CHAPTER I
PREFACE

1.1 Background

In Indonesia, archery has become a sport that is quite popular with various categories provided, starting from the Standard bow category which is usually filled by children ranging from 6 years old to 23 years old, Recurve at 15 years old to 40s, and Compound which is usually followed by children from the age of 15 years and elders whocan be said to be quite old, and the Barebow competition category which is attended by many ladies and gentlemen who are more or less 30 years old and above. In addition, there are also various traditional categories of bows such as the Horse bow which is usually studied at Islamic boarding schools and by religious leaders, Jemparingan whichis heavily involved in the Yogyakarta Palace, Kyudo which is a traditional Japanese bow,and various other types of archery in Indonesia. Based on data from *archeryweb.id* in Indonesia alone there are approximately 214 archery clubs that have been officially registered in Indonesia itself, as well as many more archery clubs that use the names of schools, Islamic boarding schools, individuals who are still not officially registered in archery club data collection at Indonesia. Based on data from *myarchery.id* it states that there have been around 60 competitions that have been held so far in the time frame fromearly January 2023 to March 2023 when the author wrote this statement, one of which was the Bogor Archery Open, where the author was directly involved in the field as a committee, athletes, and also coaches at the same time in this event.

In archery competition events so far in Indonesia, the use of the scoring system inarchery competitions can still be considered to lagging behind other countries, as the author observed in various competitions, and also from the author's coach observation where other countries have used digital applications in the form of automatic scoring systems that are directly connected to DOS competitions, while in Indonesia they still usethe manual method. in the form of handwriting on a piece of paper and transferred to theDOS table to be inputted using Excel to get the results of the athletes' positions so that there were many mistakes and errors from both the athletes and the organizers. The Archery scoring system is actually pretty simple, Just by shooting the arrow at the target base on the category of the

competition, those who can achieve the highest score by looking at where the arrow hit on the target and totaling the score the shooting for each set then total all the points that are scored, the archer with the highest score will able to continue to the elimination stage, all the procedure all the same, those who able to achievethe highest score will win the set and continues until they achieve the 1st 2nd and 3rd winner at the end of the competition

Archery in Indonesia itself has been regulated by official state and world institutions, In Indonesia the official government archery institution is Perpani or the Indonesian National Archery Association which is located in Jakarta, Gelora Bungkarno that led by the General Chairperson. Illiza Sa'aduddin Djamal, SE; Chief Daily. Ir. Muhammad Hasanuddin Thoyieb, MM; Deputy Chairman, Perpani was originally established on July 12, 1953, in Yogyakarta on the initiative of Sri Paku Alam VIII and also served as general chairman of Perpani for 24 years from 1953 to 1977 and joined FITA (Federation International de Tir A L'arc) in 1958. As for the official world archeryassociation, it is currently held by FITA or what is commonly known more broadly by the name World Archery which is located in Switzerland, its complete history is not exposed to the public so much that the data cannot be properly completed.

In archery competitions in Indonesia, the biggest problem found directly in the field is in the competition process where the score calculation procession still uses paperand manually uses Excel, resulting in errors in writing, calculations, and input in the system where errors in Excel often occur. , writing errors on the score sheet so that they have to be crossed out and rewritten. These errors are most commonly found in outdoor competition conditions where athletes must continue to be forced to focus in conditions of fatigue, pressure due to the weather, and the pressure of the competition itself. Based on the data found, more or fewer archers will make 2 to 3 writing errors in each competition session, which is mostly caused by athletes starting to lose focus due to the pressure of the race. In the data input process errors are also often found, where the results of the printout results of the position and score often have errors in the total score whichresults in the athlete's position dropping so that he is not included in the elimination category, this will be fatal and can also result in chaos between the coach and the organizer as never happened in the RR

Archery Jakarta Open competition.

Archery score calculation applications are quite widely available on the internet, one of which is My Archery, but this application still has many shortcomings, one of which is that this application can only be used for data collection of individual training scores for athletes not intended for competition purposes, while World Archery uses well-known applications in international competitions usually use Ian Seo, the drawback of thisapplication is that the UI UX is still not good and quite confusing, so that if someone is using it for the first time it is quite troublesome, and this Ian Seo requires users to take certification first abroad, making it difficult for novice users and small clubs who don't have a lot of money for needs like this, forcing them to continue using the manual methodas it has until now.

Digitalization of various things in the world has become commonplace, one of which is in the world of sports such as football which uses sensors on the ball and field to find out goals scored, read offsite, and many more. In this problem, the world of archeryalso requires a digitization process which is expected to simplify the calculation system in archery competitions, both in reducing errors in input-output, helping archers to record scores better, assisting the committee in processing incoming and outgoing data in archery competition activities. This digitization process can be started with a particular application for archery competition activities in the form of a mobile app and desktop appwith a good UI/UX design to help archery competition activities run well and regularly. This application can be started with the process of scoring and recording athlete names, then it can be continued for registration purposes to make it easier for race organizers to manage and register athletes and the category of competition they choose.

1.2 Problem Identification

1. The use of a scoring process that is still manual by using the paper base and Excelto process the archery score system.
2. Error in the data input process on the archery competition scoring system.
3. The need for a mobile and desktop application with a proper UI/UX to help in thearchery competition.

1.3 Formulation of the Problem

The formulation of the problem Is “How do we able to develop a User Interfacearchery scoring application to minimize the error in data input on the archery tournamentscoring system in Bogor”

1.4 Scope

What

What makes the urgency in this theme is that errors in scoring often occur, so it isnecessary to have an application with a UI/UX that is easy to understand for all ages so that participants can easily adapt to this application.

Who

The target market for this application is aimed at all archers in Indonesia.

When

The research was carried out on 25-30 January 2023 at the BCCAC Bogor Openarchery competition which was held for 6 full days starting from 7 am to 8 pm.

Were

Observations were carried out in BCCAC Bogor Open archery competition

Why

In the process of scoring data input in archery competitions, errors often occur bothfrom the side of the archer, the committee, and the data collection section. this can be a big problem for the organizers and the participants of the competition,resulting in considerable losses for both parties.

How

This application works by using color as the point of interest and color code to

helparchers to indicate the numeric.

1.5 Design Objectives

Design objective from this is Creating a User Interface design that are will be ableto minimize the error in data input on the archery tournament scoring system

1.6 Design Benefits

For The Writer

I hope this work is sufficient to complete my final project as a final-year student.

For The Institute

For the institution, it is hoped that it can be a guide for project plans and share references for ideas that can be taught.

For The People

With great hope, especially for the archery community, that this application can help facilitate the process of archery competitions in Indonesia

1.7 Design Method

This final project design data will use quantitative data, the data obtained will be in the form of data collectors, experiences, and interviews, with the participants, committees, coaches, and parents of athletes. Quantitative data is meant here as data thatcan be obtained based on research aimed at obtaining social data to obtain phenomena atthe scene with a description of the results of the study. (Moleong, 2010: 6).

1.7.1 Data collection

A. Observation

As a researcher, I will be directly involved in the archery competition around me.If possible, I will participate directly as a committee on the competition field so that I can understand the events in the field firsthand. By looking at listening to participate in the competition researcher can find and also know what actually happening in the archery competition

B. **Interview**

With the hope of getting data that can support the results of the observations, will interview the competition participants, coaches, parents, and the competitioncommittee in the field, so that I get various points of view that can be concludedby me based on the data collected at that time. By interviewing some of writer friend in archery community with coach Fikry and Bahija as one of the archers in the community writer hope can find any relatable data for the research.

C. **Literature Studies**

To strengthen the theory in the UI/UX design that I am working on, I will use existing data and references by examining the data in E-Books, Journals, and books that I can get for the completeness of the data I need.

1.7.2 Data Analysis

A. Qualitative Data Analysis

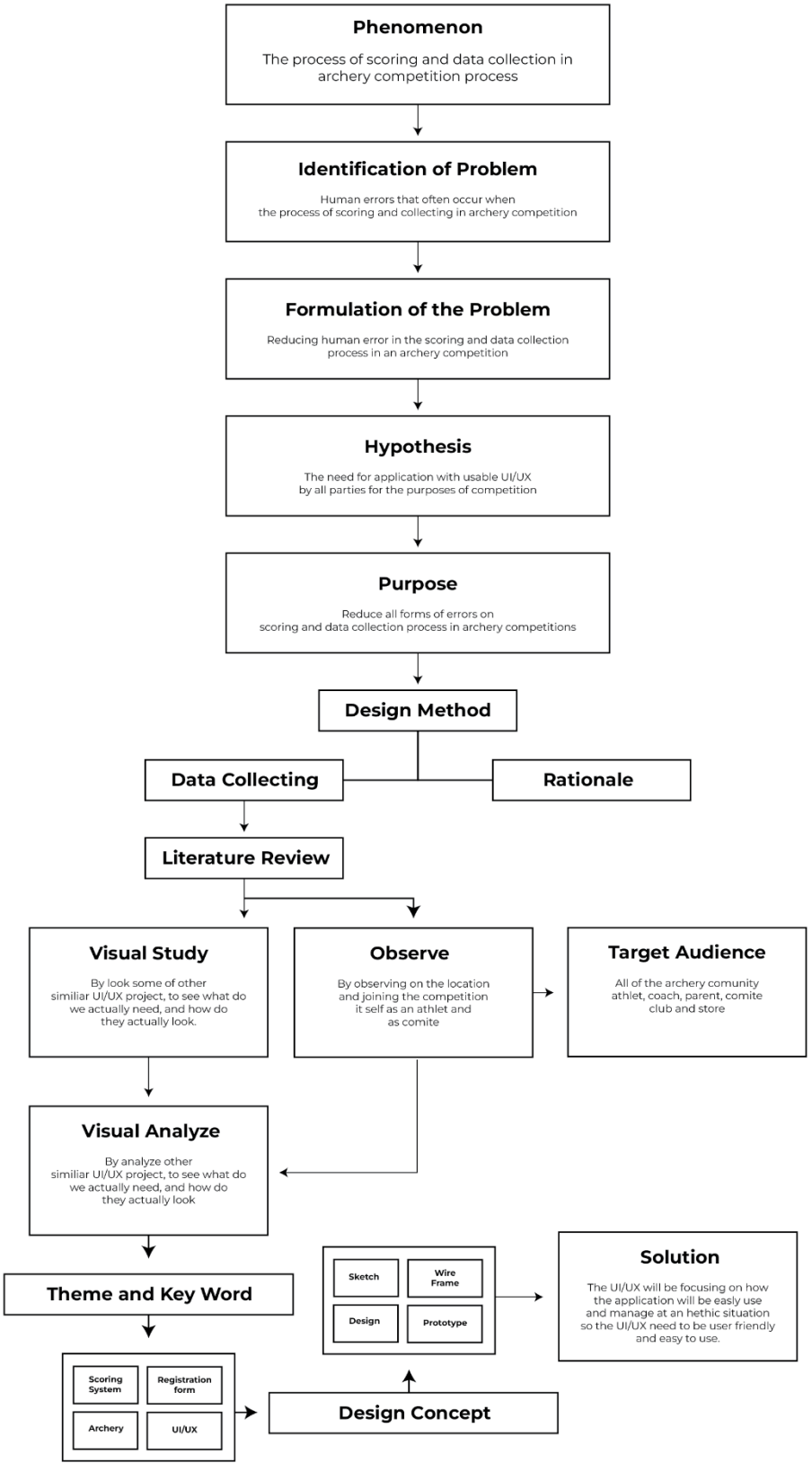
Based on the data that has been obtained, the data will be mapped and summarized, and put together, so that it can be managed into a conclusion, by looking at patterns, and similarities, and marking what is important from the

dataobtained.

B. Visual Analysis

By looking at examples of various existing applications as a reference for the needs of this application, conclusions can be drawn, and additional requirements from this application that crucially must exist in the UI / UX as service design ofthis application.

1.8 Framework



1.9 Writing Systematic

The design of this final project will be designed based on the systematics that has been determined in this chapter.

BAB I Introduction

This chapter will explain the problems that exist in the archery competition, thisproblem will be concluded based on the data I collected based on the results of interviews, and field observations during the archery competition around me.

BAB II Theoretical Basis

In this chapter, we will focus on the theories that underlie the answers to the problems found in CHAPTER I, in this chapter we will discuss a lot about UI/UX theory, user interfaces, Color theory, and much more.

BAB III Data & Analytic

This chapter contains data from the results of field research collected, to strengthen the problems raised in Chapter I.

BAB IV Concept and Design Results

In this chapter, the author will describe the work that has been made by the author. based on the prepared concept.

BAB V Closing

This chapter contains the closing and conclusions on the final results of the workand research of this final project