E-TICKETING SYSTEM FOR ZOO KEMAMAN
WITH MULTIMEDIA CONTENT

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2019
DECLARATION

I hereby declared that this project report is based on my own efforts with helps getting information from sources that I have in confessing. I also declare my works was never produced by any degree in UniSZA.

Name: Nurhanani Binti Shaharudin
Date:
CONFIRMATION

I have read this report and in my point of view, this project fulfils a condition to be awarded a Bachelor of Information Technology (Informatics Media) with Honours.

Name: Dato’ PM Dr. Mohd Hafiz Yusof
Date:
ACKNOWLEDGEMENT

In the Name of Allah, The Most Gracious and The Most Merciful, the E-Ticketing System for Zoo Kemaman with Multimedia content for subject CSF 35104 which is final year project is able to develop. I would like to profound gratitude and deep regards to several important persons that directly and indirectly involved with this process. Firstly, I would like to thank Dato’ PM Dr. Mohd Hafiz Yusof as my supervisor for this project for his guidance, monitoring and constant encouragement throughout the course of this final year project. I want to take this opportunity to thanks to my parent and also special thanks to all lectures of Faculty of Informatics and Computing for their attentions, guidance and advices to help in the development of this project. Not forgotten to all my friends for their help and support that encourages me to finish up my project. May Allah S.W.T bless all the effort that has been taken to finish this project.
ABSTRACT

An E-Ticketing System for Zoo Kemaman with Multimedia content is a web-based system that develops to replace the old ticketing system that is done manually. Currently, the ticketing system still using paper-based which the visitor need to buy the ticket at the counter. This will cause difficulties to the visitor to buy the ticket especially when they have to queue during peak hour. The zoo administration cannot keep track the real-time sales of the ticket. The need for this system is concerned with Zoo information handling and keeping all the data in a proper way that can be maintained without any error data. The new system will contain a function to purchase the ticket, generate a ticket, manage the ticket information and generate the report. The implementation of 2D animation technique for the added value of multimedia content in the system to make the system more interesting. The system will be developed using the combination of PHP and MYSQL. The result indicates this approach can help the zoo administration to manage the zoo information more effectively and the visitor can buy the ticket easily.
ABSTRAK

# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>DECLARATION</th>
<th>ii</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONFIRMATION</td>
<td>iii</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td>ABSTRAK</td>
<td>vi</td>
</tr>
<tr>
<td>CONTENTS</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xii</td>
</tr>
<tr>
<td>LIST OF APPENDIX</td>
<td>xv</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>xvi</td>
</tr>
</tbody>
</table>

## CHAPTER I  INTRODUCTION

| 1.1  | Background | 1 |
| 1.2  | Problem Statement | 3 |
| 1.3  | Objectives  | 3 |
1.4 Scope

1.4.1 User scope 4
1.4.2 System scope 5

1.5 Report Organization 6

CHAPTER II LITERATURE REVIEW

2.1 Introduction 8

2.2 Operational Definition 8

2.2.1 E-Commerce 9

2.2.2 E-Ticketing System 10

2.2.3 Multimedia 10

2.2.4 Animation 11

2.3 Research / Analysis /Model 12

2.4 Comparison between research papers 13

2.5 Chapter summary 15

CHAPTER III METHODOLOGY

3.1 Introduction 16

3.2 Research Methodology 17

3.2.1 Problem Definition 18

3.2.2 Data Collection 19

3.3 Research Paradigm and Justification 20
3.3.1 Planning 21

3.3.2 Requirement Analysis 22

3.3.3 Design 22

3.3.4 Implementation 22

3.3.5 Testing 23

3.3.6 Deployment 23

3.4 Software and Hardware Requirements 23

3.4.1 Software Requirements 24

3.4.2 Hardware Requirements 24

3.5 System Design and Modelling 25

3.5.1 Context Diagram 26

3.5.2 Data Flow Diagram (DFD) 27

3.5.3 Detailed Data Flow Diagram 28

3.5.3.1 DFD Level 1 for process 4.0 Ticket Type 28

3.5.3.2 DFD Level 1 for process 5.0 Purchasing 29

3.5.3.3 DFD Level 1 for process 6.0 Account 30

3.5.3.4 DFD Level 1 for process 9.0 Generate report 31

3.5.4 Entity Relationship Diagram (ERD) 32

3.6 Database Design 33

3.7 Proof of Concept 37
3.8 Added Value Multimedia Content 38

3.9 Summary 39

CHAPTER IV IMPLEMENTATION AND TESTING

4.1 Introduction 40

4.2 Result Testing/ Screen Input Output Report 41

4.3 Multimedia Content 54

CHAPTER V DISCUSSION AND CONCLUSION

5.1 Introduction 56

5.2 Project Contribution 57

5.3 Project Constraints 58

5.4 Future Work 59

5.3 Conclusion 60

REFERENCES 61

APPENDIX 62
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>TABLE</th>
<th>TITLE</th>
<th>PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 3.1</td>
<td>List of software requirements</td>
<td>24</td>
</tr>
<tr>
<td>Table 3.2</td>
<td>List of hardware requirements</td>
<td>25</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>TITLE</th>
<th>PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 3.1</td>
<td>Research Methodology</td>
<td>17</td>
</tr>
<tr>
<td>Figure 3.2</td>
<td>Iterative and Incremental Model</td>
<td>20</td>
</tr>
<tr>
<td>Figure 3.3</td>
<td>Context Diagram for E-Ticketing System</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>for Zoo Kemaman</td>
<td></td>
</tr>
<tr>
<td>Figure 3.4</td>
<td>DFD for E-Ticketing System for Zoo Kemaman</td>
<td>27</td>
</tr>
<tr>
<td>Figure 3.5</td>
<td>Detailed DFD for process 4.0</td>
<td>28</td>
</tr>
<tr>
<td>Figure 3.6</td>
<td>Detailed DFD for process 5.0</td>
<td>29</td>
</tr>
<tr>
<td>Figure 3.7</td>
<td>Detailed DFD for process 6.0</td>
<td>30</td>
</tr>
<tr>
<td>Figure 3.8</td>
<td>Detailed DFD for process 9.0</td>
<td>31</td>
</tr>
<tr>
<td>Figure 3.9</td>
<td>ERD for E-Ticketing System for Zoo Kemaman</td>
<td>32</td>
</tr>
<tr>
<td>Figure 3.10</td>
<td>systemticketingdb Database</td>
<td>33</td>
</tr>
<tr>
<td>Figure 3.11</td>
<td>bank Table</td>
<td>33</td>
</tr>
</tbody>
</table>
Figure 3.12  receipt Table 34
Figure 3.13  ticket_type Table 34
Figure 3.14  user Table 35
Figure 3.15  admin Table 35
Figure 3.16  purchase Table 36
Figure 3.17  account Table 36
Figure 3.18  Admin Login Page 37
Figure 3.19  Admin homepage 37
Figure 3.20  User homepage 37
Figure 3.21  Storyboard for video 2D animation 38
Figure 4.1  Login page for admin 41
Figure 4.2  Login page for user 42
Figure 4.3  Register page for new user to sign up 43
Figure 4.4  Homepage for admin 44
Figure 4.5  Add new ticket type page for admin 45
Figure 4.6  Ticket type details update or delete for admin 46
Figure 4.7  Purchasing list page for admin 47
Figure 4.8  Homepage for user 48
Figure 4.9  Purchasing ticket page for user 49
Figure 4.10  Confirm payment page for user 50
| Figure 4.11 | Receipt page | 51 |
| Figure 4.12 | Invalid login for user | 52 |
| Figure 4.13 | Invalid card number and security number | 53 |
| Figure 4.14 | 2D animation video on how to purchase ticket | 54 |
| Figure 4.15 | Pictures and video at the zoo | 55 |
# LIST OF APPENDIX

<table>
<thead>
<tr>
<th>TABLE</th>
<th>TITLE</th>
<th>PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Gantt Chart</td>
<td></td>
</tr>
</tbody>
</table>
LIST OF ABBREVIATIONS / TERMS / SYMBOLS

CD    Context Diagram
DFD   Data Flow Diagram
ERD   Entity Relationship Diagram
CHAPTER 1

INTRODUCTION

1.1 Background

The term ‘zoo’ is an abbreviation of zoological gardens and was probably first used as an abbreviation for the Clifton Zoo in Bristol, England, in 1847. In 1867 a music-hall song called Walking in the Zoo, sung by Alfred Vance, popularised the use of the term.

There are many zoos at Malaysia such as Zoo Melaka, Zoo Taiping, Zoo Negara and many more. The most famous one is Zoo Negara or National Zoo which located at Kuala Lumpur. Most of the zoo is still using the manual way of selling tickets which is the visitor need to queue at the counter to buy the entry ticket.
The world in the 21st century is growing up in technology in every field such as education, medicine, transport, etc. The use of technology makes the world so faster and easier than the early world and it releases the world from manual usage in every field.

In the early days, the manual usage causes many mistakes by the user and administrator. Using manual properties in the fields was not comfortable for the consumers because it was slower than technical usages, caused wastages of the consumers’ time and contained many formalities in usage.

An E-Ticketing System for Zoo Kemaman with Multimedia content is the project of using technology in zoological parks for entrance ticketing fields. An electronic ticket or e-ticket is used to represent a purchase usually through the website or by phone. This form of the ticket is rapidly replacing the old paper tickets. An E-Ticketing System for Zoo Kemaman with Multimedia content is a web-based system that can be used purchased a ticket to visit Zoo Kemaman. This website will also have multimedia content such as pictures and videos to make it more interesting.
1.2 Problem Statement

Currently, the ticketing system at Zoo Kemaman is done manually, it only can be bought at the counter. The admin cannot keep track of the real-time sales of the ticket. The need for an E-Ticketing System for Zoo Kemaman is concerned with Zoo information handling and keeping all the data in a proper way that can be maintained without any error data. The system should be able to generate tickets based on the request of the user and must save the data back to the database on successfully generating tickets. This system will be developed in a web-based system specifically designed to allow easy online access.

1.3 Objectives

Generally, the objectives to develop this new system is to replace the old ticketing system in the zoo, which is not systematic and efficient to be used in today’s environment. For the main objectives of this project is to help management manage the zoo more systematically. All the data kept in a database systematically. If the zoo sells the ticket online, it will make it less crowded at the counter. So, the zoo can improve its customer services to make everybody comfortable and enjoyed their time there. Besides that, to increase the number of sales ticketing. At the same time, Moreover, to design comparisons for a certain period using the new system.
1.4 Scope

The scope for this project are identified to make the system development process easier. The scope is divided into two which are user scope and system scope.

1.4.1 User Scope

There are two users that will use this system which is admin and visitor. For admin, they can manage all the information on the system such as the available time to visit, tickets purchasing data and many more. Besides that, admin can monitor the real-time sale of the ticket per days, per months and per years. Moreover, admin has the rights to delete any transaction from the database in case he feels unnecessary. For example, the admin can delete the ticket transaction of certain times if there is something that is inevitable happen, but they will notify the ticket owner.

For the visitor, they can purchase the ticket online. In addition, they can choose any time or promotion available at the zoo. For example, the zoo will have a special promotion on a school holiday. Lastly, they can view the multimedia content on the website such as pictures and videos. The multimedia content will make it more interesting and may attract more visitor.
1.4.2 System Scope

The system should be able to generate tickets based on the request of the user and must save the data back to the database on successfully generating tickets. Besides that, the system can generate tickets for children, adults, tourists, and students.
1.5 Report Organization

The report is divided into several chapters. Each chapter will represent every step is taken and matters relating to the completion of a system. Chapter 1, the introduction will be discussing the project background and problems that occur in the existing system. The objectives and the scope of the new system are also explained in this chapter in this chapter.

In the literature review chapter, it describes the research about the existing system. Consequently, the difficulties were analyzed for improvements. Techniques, equipment and appropriate technology are studied to develop the system. The methodology applied in this system will be explained in chapter 3. The methodology act as a guide for the development process and also helps to make sure the project runs smoothly as planned.

For the next chapter, which is the chapter system design and modeling, the flow of the system will represent in the form of figures such as context diagram and data flow. This figure helps to show the system as a whole and the entities involve with the system. The database design will be shown here.

Chapter 4, implementation and testing will explain the testing of the system to prove that the system can work properly. The error can be fixed at this stage.
The last chapter, discussion, and conclusion conclude the whole system. In addition, suggestions for improvement of the system and constraints through the development process are also described in this chapter.
CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter provides the literature review for the system that will be developed. The literature review is a process of reading, analyzing, evaluating and summarizing scholarly materials about a specific topic. It can be a guideline to develop a new system so that the new system can provide better or more functional than existing systems. Discussion including the existing system and comparison between current systems with the new development system is done to overcome the weakness of the current systems.

2.2 Operational Definition

An operational definition is a detailed specification of how one would go about measuring a given variable. The explanation of the term for this system as follows:
2.2.1 E-Commerce

Based on Chaffey, D. (2011) E-commerce system is a dynamic system and one of its important features is it uses urbanization, information technology, and network technology to produce the products required by the market in the quickest way. Therefore, a depth understanding about the customers’ needs and timely customer feedback into the design of products, services, in providing customers with the more personalized product will be the key to the success of e-commerce businesses in the uncertain market demanded by the environment.

Based on Fjermestad, J. & Romano Jr, N. C. in Business Process Management Journal E-commerce is a new type of trade which relies on modern information technology and network technology. It integrates the material flow, capital flow, and information flow in harmony. E-commerce is based on the survival of the internet. Netizens are the basis for the development of electronic commerce software. Determining the number of users of the e-commerce market size is the main body of the electronic trading market.
2.2.2 E- Ticketing System

Based on Ruihua, L. & Weiya, W. (2009) E-ticketing can be defined as a model that allows the approved agents to transmit ticketing information directly to the database and all the details of the customers will be stored in it. It means that all the transactions will be done electronically using a website and the customers will give a unique code (booking number/flight number) via internet such as e-mail or over the phone if any.

In addition, based on Wang, D. (2005) e-ticketing is becoming popular vastly compared to other online shopping because it gives many benefits to both the company and the customers. One of the benefits is it can reduce the cost in term of printing the paper tickets at once and can save time for both sides. Other than that, buying tickets online is also more convenient because the customers do not need to carry a paper ticket. Recently, many airlines companies also allow their customers to check-in via online over the website and can choose their favourite seats.

2.2.3 Multimedia

A multimedia computer system is one that is capable of input or output of more than one medium. Typically, the term is applied to systems that support more than one physical output medium, such as a computer display, video, and audio.
Although text and images are in fact distinct carriers of information, hence media, this usage of multimedia is not preferred. After all, newspapers with text and images are not considered to be multimedia publications! The term medium can also refer to an input device such as a keyboard, mouse, microphone, camera, or other sensors. Regarding computer input, multimedia then refers to the capability of using multiple input devices to interact with a computer system.

2.2.4 Animation

The animation could be characterized by the fact that the individual frames are not the result of a live-action scene recorded by a camera. Rather, each frame is drawn or modeled by a human or rendered on a computer. Although accurate, this characterization is by no means complete. It fails to specify the constraints on the individual images which determine whether a sequence of pictures is actually interpreted as moving or changing objects by a human spectator. Not all random sequences of images are perceived as continuous motion. It also focuses on the technical aspect of animation, ignoring its nature or essence which Norman McLaren tried to capture with his famous definition:

“Animation is not the art of drawings that move but the art of movements that are drawn; What happens between each frame is much more important than what exists on each frame; Animation is, therefore, the art of manipulating the invisible interstices that lie between the frames.”
2.3 Research /Analysis / Model

The current system in Zoo Kemaman has only the manual entry ticketing. If the visitor wants to visit, they have to go buy it at the counter. The data’s of the visitor's entries are not saved in the secured database if leads to major drawback to handling the data with an error.

The zoo can tackle the problem by upgrading to Computerized Systems. The system should be able to generate tickets based on the request of the user and must save the data back to the database on successfully generating tickets. The administrator will be enjoying the maximum advantage of the system since he could monitor the real-time sale of the ticket and can make comparisons for a certain period using the new system. The data will be provided in a simple to understand graphical and chart form. The administrator will be able to monitor the sales process of a user. The admin will have rights to delete any transaction from the database in case he feels it is unnecessary.
### 2.4 Comparison Between Research Papers

<table>
<thead>
<tr>
<th>Author /Year</th>
<th>Description</th>
<th>Technique</th>
<th>Performances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong>: Online Malaysia Cup Ticketing System (OMaCTS) Norul Faizah Ismail, Mohd Talmizie Amron 2016</td>
<td>An online e-ticketing system is developed to enable football fans to purchase the tickets at their convenient. The developed system is hoped to assist the organization as well as the football fans in conducting the process.</td>
<td>E-Ticketing, barcode</td>
<td>To make the ticket reservations online and print out their tickets by themselves. The tickets contains barcodes. They have to choose the matches, the team, types of seating, and quantity.</td>
</tr>
<tr>
<td><strong>Title</strong>: Online Airline Ticketing System Pooja Gautam 2015</td>
<td>Online ticket booking for airline travel</td>
<td>Airlines Reservation System (ARS), Computer Reservation System (CRS), E-Ticketing</td>
<td>The users can easily purchase an e-ticket by going to the ticket sale website, searching and selecting the destination, entering the details such as name, way of travel, luggage information</td>
</tr>
<tr>
<td>Title : Online Bus Ticket Reservation</td>
<td>Web based application that works within a centralized network. A bus transportation system, a facility which is used to reserve seats, cancellation of reservation and different types of route enquiries used on securing quick reservations.</td>
<td>E-Ticketing</td>
<td>enables the customer to buy bus ticket, make payment, and ask for information online easily. The customer need to choose destination, date, time, seat number, then name, address, contact no. and make payment then print the ticket.</td>
</tr>
</tbody>
</table>
2.5 Chapter Summary

Basically, in this chapter, several research has been done in order to have a deep understanding of the method that is going to implement in the proposed application. Besides a review of related existing systems also have been done at this chapter. From the existing system, we can have an idea of how the proposed system can be developed so that it is functioning well and beneficial to all the user.
CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, it will explain the specific details on the methodology being used in order to develop this project. In order to make sure the project is on the right path, methodology plays an important role as a guide for the project complete and working well as plan. There is a different type of methodology that is used for a different type of application. It is important to choose the right and suitable methodology for the development of an application thus it is necessary to understand the application functionality itself.
3.2 Research Methodology

The research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it, we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. It is necessary for the researcher to know not only the research methods/techniques but also the methodology. Researchers not only need to know how to develop certain indices or tests, how to calculate the mean, the mode, the median or the standard deviation, how to apply particular research techniques, but they also need to know which of these methods or techniques, are relevant and which are not, and what would they mean and indicate and why. Researchers also need to understand the assumptions underlying various techniques and procedures will be applicable to certain problems and others will not. All this means that if it is necessary for the researcher to design his methodology for his problem as the same way differs from problem to problem.

Figure 3.1 Research Methodology

Problem Definition

Data Collection

System Development Methodology
3.2.1 Problem Definition

A research problem, in general, refers to some difficulty which a researcher experiences in the context of either a theoretical or practical situation and wants to obtain a solution for the same. In today’s technically savvy world, the customer is of prime importance. First of all, the problem that can be a state for this project is, the current ticketing system at Zoo Kemaman is done manually. By manual, it means the visitor must queue at the counter to buy it. The ticket purchasing are recorded manually by using handwriting. This issue makes zoo services are inconvenient to the customer and waste their time. When the purchasing was recorded manually the admin might take a longer time to keep track of the real-time sales of the ticket.

3.2.2 Data Collection

We collect primary data during the course of doing experiments in experimental research but in case we do research of the descriptive type and perform surveys, whether sample surveys or census surveys, then we can obtain primary data either through observation or through direct communication with respondents in one form or another or through personal interviews. This, in other words, means that there are several methods of collecting primary data, particularly in surveys and descriptive researches. The method that is used for this project is an observation method.
a) Observation method

The observation method is the most commonly used method especially in studies relating to behavioral sciences. In a way, we all observe things around us, but this sort of observation is not scientific observation. Observation becomes a scientific tool and the method of data collection for the researcher when it serves a formulated research purpose, is systematically planned and recorded and is subjected to checks and controls on validity and reliability. Under the observation method, the information is sought by way of the investigator’s own direct observation without asking from the respondent. For instance, in a study relating to consumer behavior, the investigator instead of asking the brand of wristwatch used by the respondent, may himself look at the watch.

The main advantage of this method is that subjective bias is eliminated if the observation is done accurately. Secondly, the information obtained under this method relates to what is currently happening; it is not complicated by either the past behavior or future intentions or attitudes. However, the observation method has various limitations. Firstly, the information provided by this method is very limited. Secondly, sometimes unforeseen factors may interfere with the observational task. At times, the fact that some people are rarely accessible to direct observation creates an obstacle for this method to collect data effectively.
3.3 Research Paradigm and Justification

Iterative and incremental model is a combination of both iterative design or iterative method and incremental build model for development. The phases in the iterative and incremental model are Planning, Requirement Analysis, Design, Implementation, Testing, and Deployment. It starts with initial planning and ends with deployment with the cyclic interaction in between. The basic idea behind this method is to develop a system through repeated cycles called iterative and smaller portions at a time called incremental.

Figure 3.2 Iterative and Incremental Model

Iterative and incremental method had been chosen based on the following consideration:
Project monitoring

- Each phase of development is monitored from time to time to ensure all the system modules match earlier system requirement.

Allows change

- Any changes in developing the system will be implemented immediately so that the system modules can be improved

Save time

- Development can be made continuously, although there is an error in the previous phase because the system is developed in the cyclic method.

3.3.1 Planning

In this phase, the first step is to choose and decided the system and title for this project. The title that has been agreed to proceed was E-Ticketing System for Zoo Kemaman with Multimedia content. This system will be developed to maintain the visitor entries by providing the entry tickets which will be saved in the database by that any time the admin can view the entries details of the visitor as well as the total amount collected by the entries. An abstract is done based on information gathered and the system that has been agreed to be developed.
3.3.2 Requirement Analysis

This phase is to analyze the existing system and all requirements that are needed to develop the new system. In this phase, the information regarding on ticketing system and everything in the development of the system had been gathered and analyzed from the internet to understand more about the system that will be developed. A comparison between the existing system also had been done.

3.3.3 Design

In the design phase, several diagrams such as Context Diagram, Data Flow Diagram (DFD) Level 0 and 1, and Entity Relation Diagram (ERD) is built to know more details about the flow of the system. These entire diagrams also can be a guide for the development of the system. Database and interfaces for the system also develop at this phase. Storyboards are used as a guideline to create the animation in this system.
3.3.4 Implementation

This phase is where the design is implemented into the coding. The project is developing using PHP programming and MYSQL. XAMPP is used for the localhost server. Notepad++ is used as a base to create coding for this system. Adobe Flash is used to create an animation as multimedia content in this system.

3.3.5 Testing

After writing the code, the module is tested by using unit testing to test the single module of the system. After that, system testing is conducted to test for the error of the whole system. Any errors or bugs will be fixed and the system will repeat the testing phase until there are none of errors and bugs are found. Then, after testing is finished, the first version of the system is released.

3.3.6 Deployment

After the system is bug-free, the system can be released and users can use the system. Once the system is in steady state, it is reviewed that the system met all the goals in the project plan for satisfactory results.
3.4 Software and Hardware Requirements

This section will show the list of all software and hardware that involve in the development process. These elements are crucial and important in this process. List of software and hardware are shown as below:

3.4.1 Software Requirements

List of software needed:

Table 3.1 List of software requirements

<table>
<thead>
<tr>
<th>No.</th>
<th>Software</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>XAMPP Server</td>
<td>Acts as a local server to run and test applications</td>
</tr>
<tr>
<td>2</td>
<td>MySQL</td>
<td>Database for the system</td>
</tr>
<tr>
<td>3</td>
<td>Google Chrome</td>
<td>Browser to open the application</td>
</tr>
<tr>
<td>4</td>
<td>Microsoft Word 2013</td>
<td>Used to prepare documentation of the report and to create diagrams.</td>
</tr>
<tr>
<td>5</td>
<td>Notepad ++</td>
<td>Used to code programs</td>
</tr>
<tr>
<td>6</td>
<td>Adobe Flash</td>
<td>To create animation</td>
</tr>
<tr>
<td>7</td>
<td>Adobe Photoshop CC 2018</td>
<td>Used to edit button, image and logo to the system.</td>
</tr>
</tbody>
</table>
3.4.2 Hardware Requirements

List of hardware needed

**Table 3.2: List of hardware requirements**

<table>
<thead>
<tr>
<th>No</th>
<th>Hardware</th>
<th>Type</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Laptop</td>
<td>Hp Pavillion Notebook</td>
</tr>
<tr>
<td>2</td>
<td>Hard disc</td>
<td>1TB</td>
</tr>
</tbody>
</table>

3.5 System Design and Modelling

The system design for E-Ticketing System for Zoo Kemaman with Multimedia content such as context diagram(CD), data flow diagram(DFD) and entity relationship diagram(ERD) are explained in detailed. Data modeling is required to facilitate the interaction between system designer, programmer, and end-user. Making an early modeling can help to identify the needs, problem and possible solutions during the project.
3.5.1 Context Diagram

![Context Diagram](image)

**Figure 3.3 : Context Diagram for E-Ticketing System for Zoo Kemaman**

Context Diagram is a diagram that defines the boundary between the systems and showing the entities that interact with it. This diagram is a level view of the system. The context diagram for An E-Ticketing System for Zoo Kemaman is shown above.

There are two entities involved in this system which are admin and user. The admin in this system is the administrator of the zoo and the user is a customer. All the entities involved in this system need to login first to the system.
3.5.2 Data Flow Diagram (DFD)

Figure 3.4: DFD for E-Ticketing System for Zoo Kemaman

Data Flow Diagram is a graphical representation of the flow data through an information system. It shows how a system’s environmental entities, processes and data are interconnected and also the data is stored in the database. It also shows what kind of information will be input to and output from the system, where the data will come from and go to and where the data will be stored.
3.5.3 Detailed Data Flow Diagram

In this section, component in the data flow diagram level 0 is break into several parts to explain more details about each module.

3.5.3.1 DFD Level 1 for process 4.0 Ticket Type

![Detailed DFD for process 4.0 Ticket Type](image)

**Figure 3.5: Detailed DFD for process 4.0**

Figure 3.5 shows the detail process of managing ticket type. This process is done by admin. The system will display the list of ticket type. Admin can add ticket type by entering the ticket type detail into the system. Besides that, admin also can update the ticket type information. Lastly, admin can delete the ticket type information. Then the database will add, update or delete the detail according to the action taken by the admin.
3.5.3.2 DFD Level 1 for process 5.0 Purchasing

Figure 3.6: Detailed DFD for process 5.0

Figure 3.6 shows the detail process of purchasing a ticket. This process is done by the user. The system will display the list of the ticket to be purchased. User can add purchase ticket by fill in the purchasing form. This process can be done by entering the user detail and purchasing detail into the system. Besides that, the user also can delete the ticket purchasing. Then the database will add and delete the detail according to the action taken by the user.
3.5.3.3 DFD Level 1 for process 6.0 Account

Figure 3.7 : Detailed DFD for process 6.0

Figure 3.7 shows the detail process of payment. This process is done by the user. The system will display payment information. User can make payment of the ticket purchased. This process can be done by entering the card number and security number of the user into the system. Besides that, the user also can delete the ticket purchasing. Then the database will enter the updated payment detail into the system.
3.5.3.4 DFD Level 1 for process 9.0 Generate report

Figure 3.8 : Detailed DFD for process 9.0

Figure 3.8 shows the detail process of generating a report. This process is done by the system and the report can be viewed by the admin. Firstly, admin needs to choose the report type, then admin select view. The report is generating by the system by collecting the information from all the details that have inside the system. The report will display the user, the purchasing and etc.
3.5.4 Entity Relationship Diagram (ERD)

Figure 3.9: ERD for E-Ticketing System for Zoo Kemaman

ERD’s are a major data modeling tool and will help organize the data in your project into entities and define the relationships between the entities. This process has proved to enable the analyst to produce a good database structure so that the data can be stored and retrieved in a most efficient manner.
3. 6 Database Design

Database stores data in a systematic way and can be accessed easily by authorized users. There are 7 tables which are involved in storing data in the E-Ticketing System for Zoo Kemaman with Multimedia Content. The list of tables are shown below:

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<thead>
<tr>
<th>Table</th>
<th>Action</th>
<th>Rows</th>
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</tr>
<tr>
<td>purchase</td>
<td></td>
<td>8</td>
<td>InnoDB</td>
<td>latin1_swedish_ci</td>
<td>32 KIB</td>
</tr>
<tr>
<td>receipt</td>
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<td>6</td>
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<td>latin1_swedish_ci</td>
<td>16 KIB</td>
</tr>
<tr>
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<tr>
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<tr>
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<td>InnoDB</td>
<td>latin1_swedish_ci</td>
<td>168 KIB</td>
</tr>
</tbody>
</table>

Figure 3.10 : systemticketingdb Database

Figure 3.10 shows the table for overall this system. Some of the tables are account, admin, bank, purchase, receipt, ticket_type and user.

<table>
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<tr>
<th>#</th>
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<th>Default</th>
<th>Comments</th>
<th>Extra</th>
<th>Action</th>
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</thead>
<tbody>
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<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>bankName</td>
<td>varchar(30)</td>
<td>latin1_swedish_ci</td>
<td>No</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.11: bank Table

Figure 3.11 shows bank table that has been used to store bank details. There are attributes like bankID and bankName in this table.
Figure 3.12: receipt Table

Figure 3.12 shows the receipt table that has been used to receipt information such as receiptID, cardNo, receiptDate and receiptAmount. This information is required in order for the system to generate after the payment is successful.

Figure 3.13: ticket_type Table

Figure 3.13 shows ticket_type table that has been used to store type of ticket details. There are attributes like ticketId, ticketName, and ticketPrice in this table. Different type of ticket will have different price.
Figure 3.14: user Table

Figure 3.14 shows a user table that has been used to store user details such as userId, password, email, and level. This information is required in order for the user to purchase a ticket on this system. Only authorized user where their details are already stored in the user table will be able to log in to the system. When a new user register on this system, their details will be stored in the user table.

Figure 3.15: admin Table

Figure 3.15 shows the admin table that has been used to store admin details such as userId, adminName, adminEmail, and adminPhone. This information is required in order for the admin to use this system. Only authorized admin where their details are already stored in the user table will be able to log in to the system. The userId is used as a foreign key to get the admin information in the user table.
Figure 3.16: purchase Table

Figure 3.16 shows the purchase table that has been used to store purchase details such as purchaseID, receiptID, userId, ticketId, purchaseDate, purchaseQty, and purchaseStatus. The ticketId act as a foreign key to get ticket type information from the ticket_type table. All the information about the purchase is stored in the table.

Figure 3.17: account Table

Figure 3.17 shows the account table that has been used to account information such as cardNo, securityNo, accountName, bankID, accountBalance, and userId. This information is required in order for the customer to use the system. Only authorized user where their details are already stored in the account table will be able to make payment for their purchasing on this system. The bankID, and userId act as a foreign key to get the bank, and user information from the bank, and user table respectively.
3.7 Proof of Concept

Figure 3.18: Admin Login Page

Figure 3.19: Admin homepage

Figure 3.20: User homepage
3.8 Added Value Multimedia Content

a) Storyboard for video animation

Figure 3.21: Storyboard for video 2D animation
3.8 Summary

The methodology is very important in system development. To make sure the system is incorrect path during development, system methodology will play the role. The most suitable methodology for this system is the Iterative and Incremental Model. Every phase act as a guide to building this project in order to make sure the objectives can be achieved. Besides, this chapter also explains details about software and hardware used throughout this process.
4.1 Introduction

This chapter will discuss about the modules implemented in the system. Implementation encompasses all the processes involved in getting system to operate properly and making necessary changes. The procedures in this chapter may be modified to make sure the functionality and the modules work correctly. Testing may be performed on each of the modules before the system can be released. Testing should be done throughout the implementation process.
4.2 Result Testing / Screen Input Output Report

The interface is the point of interaction between the user and the system. The interface will decide how users can interact with the system and the ability of that system to receive input, process the input and produce the desired output. It is also one of the important parts of the development process. The design of an interface should be user-friendly because it changes the user’s point of view of that system. Below are the interfaces for E-Ticketing System for Zoo Kemaman:

![Login Page](image)

**Figure 4.1: Login page for admin**

Figure 4.1 is the login page for admin and it is set as index.html to become the first page when E-Ticketing System for Zoo Kemaman is used. Admin needs to log in here before they can use the system. Admin needs to enter userId in “User ID” input box and password in “Password” input box. Only authorized admin login by press “Log in” button, the system will be directed to homepage staff.
Figure 4.2: Login page for user

Figure 4.2 is the login page for user and it is set as loginUser.php. In order for the user to reach here, they to go to the homepage for the user and click the text“ Login”. User needs to enter userId in “User ID” input box and password in “Password” input box. Only authorized user login by press “Log in” button, the system will be directed to the homepage where user can make the purchasing.
Figure 4.3 is the registration page for a new user to sign up. They need to fill in this form to create an account and have access to perform the functions provided for the user. User needs to enter userId in “User ID” input box, their email address in “Email” input box and password in “Password” input box. After filling in this form, they need to press the “Save” button, the system will be directed to the homepage where they are more functions for the user to perform. The only authorized user can make a purchase for the ticket available.
Figure 4.4 : Homepage for admin

Figure 4.4 is the homepage for admin. Admin can choose which action they want to be done first. The ticket type function is to manage the ticket information and the purchasing list function is to view all the details of the ticket that have been purchased. Admin also can edit the purchasing list. Besides that, the logout function is to log out of the system.
Figure 4.5: Add new ticket type page for admin

Figure 4.5 adds new ticket type page that displays the type of the ticket and the price of the ticket. Only authorized admin have access to this page. This page will hold the ticketId of a ticket. The add new function is for the admin to add a new type of ticket by inserting the name of the ticket type and the price of the ticket. The data will be saved in the database. For example, a ticket for foreigner and the price is RM50.00.
Figure 4.6: Ticket type details update or delete for admin

Figure 4.6 is the ticket type details update or delete page for admin. This page will display ticket type’s details for a selected ticket type chosen by the admin on the page before. The admin needs to fill in all ticket information before submitting the updated data otherwise the updated data cannot be saved in the database. Button “Update” is used to saved the updated ticket information in the database and the button “Delete” is used to delete any ticket information from the database.
Figure 4.7: Purchasing list page for admin

Figure 4.7 is the purchasing list page for admin. This page will display all list of purchasing in this system. Admin can search, delete and update information regarding purchasing details. The purchasing list will display the purchasing ID, user ID, ticket ID and payment status in the form of the date the payment made. Only authorized admin have access to this page and perform all the function.
Figure 4.8: Homepage for user

Figure 4.8 is the homepage for the user. User can choose which action they want to be done first. Although the user can perform all the functions in this homepage list, there is a certain function that only can be done when the user already sign up and have an account. List of functions can be done are register function that is used to sign up and create an account, gallery function to view the multimedia content that has in this system such as pictures and video, purchasing function to purchase a ticket and logout function to log out from the system.
Figure 4.9 is a page to purchase ticket for the user that only can be accessed by an authorized user. This page will display a form to be filled to purchase a ticket in the system. Firstly, they need to choose the ticket type and insert the amount of ticket that wants to be purchased in the “Quantity” input box. After that, click the button “Submit” to continue purchasing. It will display a list of your purchasing with the total price. If you suddenly want to delete one of your purchase, just click “Delete”. If you are already done purchasing, you can click the button “Confirm” to confirm your purchasing and continue to payment.
Figure 4.10 is confirmed payment page for the user after purchase the ticket. This page will display the detail of the ticket that has been purchased from the previous page. This system will generate the total by adding quantity and the price of the ticket. This page will also display a form to be filled to make payment. They need to select the name of the bank, insert their card number in the “Card Number” input box and insert security number in the “Security Number” input box. User needs to fill in all the information correctly before submitting the data otherwise the information cannot be saved in the database. Button “Confirm Payment” is used to save payment information in the database and go to the next page.
Figure 4.11: Receipt page

Figure 4.11 is the receipt page for the user. This page will be displayed after the payment has been received after the payment information is successfully stored in the database. This payment receipt will display payment’s information like receipt ID, ticket type, quantity, total price, paid using and payment date. Button “Print” is used to print the payment receipt.
Figure 4.12: Invalid login for user

Figure 4.12 is the not success notification to login in the system for user. This notification will be popup when the user ID and the password do not match with the data inside the database. This notification is built in javascript using the alert function. The users need to click the “OK” button to continue.
Figure 4.13: Invalid card number and security number

Figure 4.13 is the not success notification to login in the system for user. This notification will be popup when the card number and security number do not match with the data inside the database. The payment is not successful. This notification is built in javascript using the alert function. The users need to click the “OK” button to continue.
4.3 Multimedia Content

Figure 4.14: 2D animation video on how to purchase ticket

Figure 4.13 is a 2D animation video that is made using Adobe Flash Professional CS6. This video is about how to purchase tickets on this website. To make this website more user-friendly, this video is implemented on this website. It will make it easier for a new user to purchase tickets on this website. Click the button “play” to play the video.
Figure 4.15: Pictures and video at the zoo

Figure 4.15 is the pictures and video that are taken at the zoo. Pictures of a variety of animals at the zoo. Video of the animals, animal show and etc. It was recorded during the visit to the zoo.
Chapter 5

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter discuss on the contributions, constraints, future work and conclusion of this project. The contribution of the system is discussing about the contribution of the system for users that use the system. Project constraints will state all the difficulties that have been faced throughout the development of the system. Future work will be discussed about the suggestion in future project and the conclusion is made to conclude about the project.
5.2 Project Contribution

E-Ticketing System for Zoo Kemaman with Multimedia Content will be used in the zoo for the management and visitor. The major contribution of the project can be summarized as follow:

- The first and foremost, this system will help the management to manage all the data of the zoo more systematically. Unlike the manual approach, this new system will keep all the data or record in a database that can gather up to millions of data. The data will be stored in more secure placed because of only authorized user can access that specific data.

- In addition, this system is a web-based system that can be used to purchase a ticket to visit Zoo Kemaman. An electronic ticket or e-ticket is used to represent a purchase usually through the website or by phone. This ticket is rapidly replacing the old paper tickets.

- Besides that, this website will also have multimedia content such as pictures and videos to make it more interesting.
5.3 Project Constraints

There are several problems and limitations that occurred throughout the development of this system. These problems and limitations in conducting this study are:

- This project does not capture the overall design principles and requirements for developing the system due to time constraints.

- Some changes or addition to the system also occur which require a developer to review back the program that already been done.

- Other than that, lack of information on the management of the zoo process.
5.4 Future Works

E-Ticketing System for Zoo Kemaman with Multimedia Content helps the management manage the ticketing purchasing more efficient and systematic way. There are several functions that can be implemented in this system later in the future.

- The system needs to be more functions when many more modules can be added so that it can be used by the management.

- Other than that, implementation of QR code technology in the E-Ticketing System for Zoo Kemaman can be done in the future. QR Codes are such a great tool for tickets, because they allow information to be stored elsewhere, freeing up space for graphics or other elements, where you can add branding and express your creativity.
5.5 Conclusion

In conclusion, an E-Ticketing System for Zoo Kemaman with Multimedia Content was developed to assist management in managing the ticketing process. It can help the paper-based system to be more systematic by replacing it with a computerized system. Data or record of the customers and other information can be stored in more secure placed and the used of the database also will decrease the cost. This system will be developed in a web-based system specifically designed to allow easy online access. Hopefully, the system can be used in the zoo and zoo management can manage the ticketing process more easy and reliable as well as can give benefit to everyone.
References


Chirag Modi, P. P. (n.d.). ONLINE MOVIE TICKET BOOKING SYSTEM.


Kanagasabai, T. (2012). ZOO INFORMATION MANAGEMENT SYSTEM.


### Gantt Chart

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</tr>
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<td>Develop a proof of concept to demonstrate the feasibility of your proposed project.</td>
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<td>Submission draft Report of the Proposal to the supervisor to check and suggest correction</td>
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</tr>
<tr>
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<td>Edit report</td>
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<td>Submission draft report to supervisor</td>
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