



**DEVELOPMENT OF WEB-BASED MARKETING
INFORMATION SYSTEM AT CV
KOMPAK MITRA BERJAYA**

UNDERGRADUATE THESIS

**Submitted as one of the requirements to obtain
Sarjana Komputer (S.Kom.)**

By:

JACKSON LEWIS OPTATUS

012201900044

**FACULTY OF COMPUTING
INFORMATION SYSTEM STUDY PROGRAM**

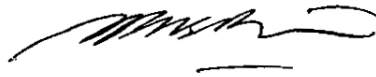
CIKARANG

JULY, 2023

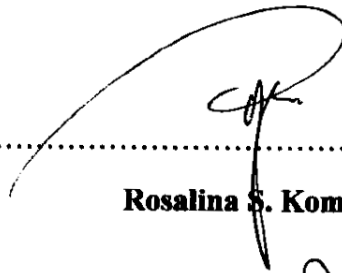
PANEL OF EXAMINER APPROVAL

The Panel of Examiners declare that the undergraduate thesis entitled **Development of Web-Based Marketing Information System at CV Kompak Mitra Berjaya** that was submitted by Jackson Lewis Optatus majoring in Information System from the Computer Science was assessed and approved to have passed the Oral Examination on Thursday, 13 July 2023.

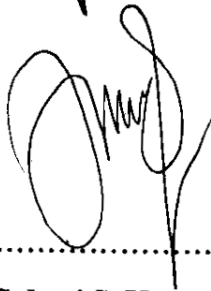
Panel of Examiner



.....
Rusdianto Roestam M.Sc., Ph.D.



.....
Rosalina S. Kom., M. Kom.



.....
Genta Sahuri S. Kom., M. Kom.

STATEMENT OF ORIGINALITY

In my capacity as an active student of President University and as the author of the thesis/final project/business plan (underline that applies) stated below:

Name : Jackson Lewis Optatus
Student ID number : 012201900044
Study Program : Information System
Faculty : Computer Science

I hereby declare that my thesis/final project/business plan entitled **"DEVELOPMENT OF WEB-BASED MARKETING INFORMATION SYSTEM AT CV KOMPAK MITRA BERJAYA"** is to the best of my knowledge and belief, an original piece of work based on sound academic principles. If there is any plagiarism detected in this thesis/final project/business plan, I am willing to be personally responsible for the consequences of these acts of plagiarism, and will accept the sanctions against these acts in accordance with the rules and policies of President University.

I also declare that this work, either in whole or in part, has not been submitted to another university to obtain a degree.

Cikarang, 31 July 2023



(.....)

Jackson Lewis Optatus

SCIENTIFIC PUBLICATION APPROVAL FOR ACADEMIC INTEREST

As an academic community member of the President's University, I, the undersigned:

Name : Jackson Lewis Optatus
Student ID number : 012201900044
Study program : Information System

for the purpose of development of science and technology, certify, and approve to give President University a non-exclusive royalty-free right upon my final report with the title:

**DEVELOPMENT OF WEB-BASED MARKETING INFORMATION SYSTEM
AT CV KOMPAK MITRA BERJAYA**

With this non-exclusive royalty-free right, President University is entitled to converse, to convert, to manage in a database, to maintain, and to publish my final report. There are to be done with the obligation from President University to mention my name as the copyright owner of my final report.

This statement I made in truth.

Cikarang, 31 July 2023



(.....)

Jackson Lewis Optatus

ADVISOR APPROVAL FOR PUBLICATION

As an academic community member of the President's University, I, the undersigned:

Advisor Name : Genta Sahuri S. Kom, M. Kom
Employee ID number : 20181000777
Study program : Information System
Faculty : Computer Science

Declare that following final project:

Title of final project : DEVELOPMENT OF WEB-BASED MARKETING
INFORMATION SYSTEM AT CV KOMPAK MITRA BERJAYA
Final project author : Jackson Lewis Optatus
Student ID number : 012201900044

will be published in journal / institution's repository / proceeding / unpublish /
..... (choose one, underline that applies)

Cikarang, 31 July 2023



(.....)

Genta Sahuri S. Kom, M. Kom

SIMILARITY INDEX REPORT

Final Project

ORIGINALITY REPORT

15%	15%	2%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	repository.president.ac.id Internet Source	10%
2	www.coursehero.com Internet Source	1%
3	e-journal.lp2m.uinjambi.ac.id Internet Source	<1%
4	repositorio.ecotec.edu.ec Internet Source	<1%
5	help.altair.com Internet Source	<1%
6	repository.iainpalopo.ac.id Internet Source	<1%
7	eprints.upj.ac.id Internet Source	<1%
8	hdl.handle.net Internet Source	<1%
9	I Komang Agus Ady Aryanto, IGKG Puritan Wijaya, I Nyoman Rudy Hendrawan, Kadek Yota Ernanda Aryanto. "A Prototype IoT based	<1%

ANTI-PLAGIARISM BASED ON ARTIFICIAL INTELLIGENCE

GPTZero

Stats

Average Perplexity Score: 61.605



A document's perplexity is a measurement of the randomness of the text

Burstiness Score: 49.954



A document's burstiness is a measurement of the variation in perplexity

Your sentence with the highest perplexity, "*How to increase company sales?*", has a perplexity of: 228

ABSTRACT

CV Kompak Mitra Berjaya is a company engaged in the plastic and packaging industry. The company realizes that the development of web-based marketing information system has become an important topic in the current digital era. An effective marketing information system can help the company expand market reach, increase visibility, and strengthen customer relationships through online platforms.

The development of this web-based marketing information system will use the waterfall method and be made based on the needs of CV Kompak Mitra Berjaya. The steps of developing this information system start from system requirements analysis, system design, system implementation, system integration & testing, and system operation & maintenance. Furthermore, this information system will use PHP and MySQL programming languages, and several frameworks such as PHP framework (Laravel) and CSS framework (Bootstrap).

In order to face increasingly fierce business competition, the development of web-based marketing information system is a necessity that cannot be ignored. By utilizing available web technologies and digital tools, the company is expected to be able to optimize marketing strategies to increase sales and customer brand awareness of the company.

Keywords: *Information System, Website, Digital Marketing, Waterfall*

ACKNOWLEDGEMENTS

Praise the author prays to the presence of God Almighty, because of His mercy and grace the author can complete this final project entitled “Development of Web-Based Marketing Information System at CV Kompak Mitra Berjaya”. This final project was written to complete the Final Project course as one of the requirements for obtaining a bachelor's degree at President University. On this occasion the author would express gratitude to:

1. My family who always provides support, both materially and spiritually, and motivation to keep moving forward.
2. Mr. Genta Sahuri S. Kom, M. Kom as the final project advisor who has provided help, guidance, advice, support and knowledge during the process of working on this final project.
3. All President University lecturers and staff, especially in the faculty of computing who have provided useful experience and knowledge during the lecture period.
4. President University and CV Kompak Mitra Berjaya who have provided the opportunity and helped in the process of working on this final project.
5. All my friends, both inside and outside of President University, who have accompanied me and provided help, advice, support and knowledge during the process of working on this final project.
6. All parties that cannot be mentioned who have supported the author.

TABLE OF CONTENTS

	Page
ABSTRACT.....	viii
DEDICATION.....	ix
ACKNOWLEDGEMENTS.....	x
TABLE OF CONTENTS.....	xi
LIST OF TABLES.....	xiv
LIST OF FIGURES.....	xv
CHAPTER I INTRODUCTION.....	1
1.1 Background.....	1
1.2 Problem Statement.....	3
1.3 Project Objective.....	3
1.4 Scope and Limitation.....	3
1.5 Methodology.....	4
1.6 Final Project Outline.....	6
CHAPTER II LITERATURE REVIEW.....	8
2.1 Information System.....	8
2.2 Website.....	9
2.3 Digital Marketing.....	9
2.4 Related Works.....	10
2.4.1 PT Yunmar Setia Sejahtera.....	10
2.4.2 PT Panca Bersoedaraan Sedjati.....	11
2.4.3 Comparison Overview with Related Work.....	12
CHAPTER III SYSTEM ANALYSIS.....	13
3.1 System Overview.....	13
3.2 Functional Requirements.....	14
3.3 Software and Hardware Requirements.....	14
3.4 Use Case Diagram.....	15
3.5 Use Case Narrative.....	17
3.6 Activity Diagram.....	28
3.6.1 View Main Web.....	28
3.6.2 Fill Out the Contact Form.....	29
3.6.3 Login to Admin Web.....	30
3.6.4 User (View Profile).....	31
3.6.5 User (Edit Profile).....	32
3.6.6 User (Edit Password).....	33
3.6.7 View Master Data.....	34

3.6.8 Add Master Data.....	35
3.6.9 Edit Master Data.....	36
3.6.10 Delete Master Data.....	37
3.6.11 View Company Data.....	38
3.6.12 Edit Company Data.....	39
3.6.13 View Account Data.....	40
3.6.14 Add Account Data.....	41
3.6.15 Edit Account Password Data.....	42
3.6.16 Delete Account Data.....	43
CHAPTER IV SYSTEM DESIGN.....	45
4.1 User Interface Design.....	45
4.1.1 Home Page in Main Web.....	45
4.1.2 About Us Page in Main Web.....	46
4.1.3 Product Page in Main Web.....	47
4.1.4 Product Detail Page in Main Web.....	48
4.1.5 Catalog Page in Main Web.....	49
4.1.6 Contact Us Page in Main Web.....	50
4.1.7 Login Page in Admin Web.....	51
4.1.8 Dashboard Page in Admin Web.....	52
4.1.9 Profile Page in Admin Web.....	54
4.1.10 Edit Profile Page in Admin Web.....	54
4.1.11 Edit Password Page in Admin Web.....	55
4.1.12 Master Data in Admin Web.....	56
4.1.13 Add and Edit Master Data in Admin Web.....	57
4.1.14 Company Data in Admin Web.....	58
4.1.15 Account Data in Admin Web.....	59
4.1.16 Add Account Data in Admin Web.....	60
4.1.17 Edit Account Password Data in Admin Web.....	61
4.1.18 Pop Up Message When Add, Edit and Delete Data in Admin Web.....	62
4.2 Database Design.....	63
4.2.1 Database Table.....	63
4.2.2 Database Structure.....	64
CHAPTER V SYSTEM IMPLEMENTATION.....	69
5.1 User Interface Development.....	69
5.1.1 Home Page in Main Web.....	69
5.1.2 About Us Page in Main Web.....	70
5.1.3 Product Page in Main Web.....	71
5.1.4 Product Detail Page in Main Web.....	72
5.1.5 Catalog Page in Main Web.....	73

5.1.6 Contact Us Page in Main Web.....	74
5.1.7 Login Page in Admin Web.....	75
5.1.8 Dashboard Page in Admin Web.....	76
5.1.9 Profile Page in Admin Web.....	77
5.1.10 Edit Profile Page in Admin Web.....	77
5.1.11 Edit Password Page in Admin Web.....	78
5.1.12 Master Data Page in Admin Web.....	79
5.1.13 Add / Edit Master Data Page in Admin Web.....	79
5.1.14 Company Data Page in Admin Web.....	80
5.1.15 Account Data Page in Admin Web.....	81
5.1.16 Add Account Data Page in Admin Web.....	82
5.1.17 Edit Account Password Data Page in Admin Web.....	83
5.1.18 Confirmation Message in Admin Web.....	83
5.1.19 Notification Message in Admin Web.....	84
5.2 Application Details.....	85
5.2.1 Route Code.....	85
5.2.2 Main Web Code.....	86
5.2.3 Contact Form Code.....	87
5.2.4 Admin Web Code.....	90
5.2.5 Dashboard Code.....	93
5.2.6 Edit Profile Code.....	95
5.2.7 Edit Password Code.....	96
5.2.8 Slider Data Code.....	97
5.2.9 Product Data Code.....	100
5.2.10 Catalog Data Code.....	103
5.2.11 About Data Code.....	106
5.2.12 Contact Data Code.....	108
5.2.13 Account Data Code.....	110
CHAPTER VI SYSTEM TESTING AND EVALUATION.....	113
6.1 Testing Environment.....	113
6.2 Testing Scenario.....	113
6.2.1 Main Web Features.....	113
6.2.2 Authentication Features.....	114
6.2.3 Admin Web Features.....	115
CHAPTER VII CONCLUSION AND FUTURE WORK.....	119
7.1 Conclusion.....	119
7.2 Future Work.....	119
REFERENCES.....	121

LIST OF TABLES

	Page
Table 2. 1 Comparison Overview with Related Work.....	12
Table 3. 1 Functional Requirements.....	14
Table 3. 2 Use Case Narrative for View Main Web.....	17
Table 3. 3 Use Case Narrative for Fill Out the Contact Form.....	18
Table 3. 4 Use Case Narrative for Login to Admin Web.....	19
Table 3. 5 Use Case Narrative for User (View Profile).....	19
Table 3. 6 Use Case Narrative for User (Edit Profile).....	20
Table 3. 7 Use Case Narrative for User (Edit Password).....	20
Table 3. 8 Use Case Narrative for View Master Data.....	21
Table 3. 9 Use Case Narrative for Add Master Data.....	22
Table 3. 10 Use Case Narrative for Edit Master Data.....	23
Table 3. 11 Use Case Narrative for Delete Master Data.....	23
Table 3. 12 Use Case Narrative for View Company Data.....	24
Table 3. 13 Use Case Narrative for Edit Company Data.....	25
Table 3. 14 Use Case Narrative for View Account Data.....	25
Table 3. 15 Use Case Narrative for Add Account Data.....	26
Table 3. 16 Use Case Narrative for Edit Account Password Data.....	27
Table 3. 17 Use Case Narrative for Delete Account Data.....	27
Table 4. 1 Database Structure.....	64
Table 6. 1 Testing Scenario for Main Web Features.....	114
Table 6. 2 Testing Scenario for Authentication Features.....	115
Table 6. 3 Testing Scenario for Admin Web Features.....	115

LIST OF FIGURES

	Page
Figure 1. 1 Waterfall Method.....	4
Figure 2. 1 PT Yunmar Setia Sejahtera Website View.....	11
Figure 2. 2 PT Panca Bersoedaraan Sedjati Website View.....	12
Figure 3. 1 Use Case Diagram of Admin.....	16
Figure 3. 2 Use Case Diagram of Staff.....	17
Figure 3. 3 Activity Diagram for View Main Web.....	29
Figure 3. 4 Activity Diagram for Fill Out the Contact Form.....	30
Figure 3. 5 Activity Diagram for Login to Admin Web.....	31
Figure 3. 6 Activity Diagram for User (View Profile).....	32
Figure 3. 7 Activity Diagram for User (Edit Profile).....	33
Figure 3. 8 Activity Diagram for User (Edit Password).....	34
Figure 3. 9 Activity Diagram for View Master Data.....	35
Figure 3. 10 Activity Diagram for Add Master Data.....	36
Figure 3. 11 Activity Diagram for Edit Master Data.....	37
Figure 3. 12 Activity Diagram for Delete Master Data.....	38
Figure 3. 13 Activity Diagram for View Company Data.....	39
Figure 3. 14 Activity Diagram for Edit Company Data.....	40
Figure 3. 15 Activity Diagram for View Account Data.....	41
Figure 3. 16 Activity Diagram for Add Account Data.....	42
Figure 3. 17 Activity Diagram for Edit Account Password Data.....	43
Figure 3. 18 Activity Diagram for Delete Account Data.....	44
Figure 4. 1 UI Design of Home Page in Main Web.....	46
Figure 4. 2 UI Design of About Us Page in Main Web.....	47
Figure 4. 3 UI Design of Product Page in Main Web.....	48
Figure 4. 4 UI Design of Product Detail Page in Main Web.....	49
Figure 4. 5 UI Design of Catalog Page in Main Web.....	50
Figure 4. 6 UI Design of Contact Us Page in Main Web.....	51
Figure 4. 7 UI Design of Login Page in Admin Web.....	52
Figure 4. 8 UI Design of Admin Dashboard Page in Admin Web.....	53
Figure 4. 9 UI Design of Staff Dashboard Page in Admin Web.....	53
Figure 4. 10 UI Design of Profile Page in Admin Web.....	54
Figure 4. 11 UI Design of Edit Profile Page in Admin Web.....	55
Figure 4. 12 UI Design of Edit Password Page in Admin Web.....	56
Figure 4. 13 UI Design of Slider / Product / Catalog Data in Admin Web.....	57
Figure 4. 14 UI Design of Add and Edit Slider / Product / Catalog Data in Admin Web	58

Figure 4. 15 UI Design of About / Contact Data in Admin Web.....	59
Figure 4. 16 UI Design of Account Data in Admin Web.....	60
Figure 4. 17 UI Design of Add Account Data in Admin Web.....	61
Figure 4. 18 UI Design of Edit Account Password Data in Admin Web.....	62
Figure 4. 19 UI Design of Pop Up Message When Add Data in Admin Web.....	62
Figure 4. 20 UI Design of Pop Up Message When Edit Data in Admin Web.....	63
Figure 4. 21 UI Design of Pop Up Message When Delete Data in Admin Web.....	63
Figure 4. 22 Database Table.....	64
Figure 5. 1 UI Development of Home Page in Main Web (Part 1).....	69
Figure 5. 2 UI Development of Home Page in Main Web (Part 2).....	70
Figure 5. 3 UI Development of About Us Page in Main Web.....	71
Figure 5. 4 UI Development of Product Page in Main Web.....	72
Figure 5. 5 UI Development of Product Detail Page in Main Web.....	73
Figure 5. 6 UI Development of Catalog Page in Main Web.....	74
Figure 5. 7 UI Development of Contact Us Page in Main Web.....	75
Figure 5. 8 UI Development of Contact Form Notification Message in Main Web....	75
Figure 5. 9 UI Development of Login Page in Admin Web.....	76
Figure 5. 10 UI Development of Admin Dashboard Page in Admin Web.....	76
Figure 5. 11 UI Development of Staff Dashboard Page in Admin Web.....	77
Figure 5. 12 UI Development of Profile Page in Admin Web.....	77
Figure 5. 13 UI Development of Edit Profile Page in Admin Web.....	78
Figure 5. 14 UI Development of Edit Password Page in Admin Web.....	79
Figure 5. 15 UI Development of Master Data Page in Admin Web.....	79
Figure 5. 16 UI Development of Add / Edit Master Data Page in Admin Web.....	80
Figure 5. 17 UI Development of Company Data Page in Admin Web.....	81
Figure 5. 18 UI Development of Account Data Page in Admin Web.....	82
Figure 5. 19 UI Development of Add Account Data Page in Admin Web.....	82
Figure 5. 20 UI Development of Edit Account Password Data Page in Admin Web..	83
Figure 5. 21 UI Development of Confirmation Message When Add Data in Admin Web.....	84
Figure 5. 22 UI Development of Confirmation Message When Edit Data in Admin Web.....	84
Figure 5. 23 UI Development of Confirmation Message When Delete Data in Admin Web.....	84
Figure 5. 24 UI Development of Notification Message When Add Data in Admin Web.....	85
Figure 5. 25 UI Development of Notification Message When Edit Data in Admin Web.....	85
Figure 5. 26 UI Development of Notification Message When Delete Data in Admin Web.....	85

Figure 5. 27 Route of Web.....	86
Figure 5. 28 Controller of Main Web.....	87
Figure 5. 29 Controller of Contact Form.....	88
Figure 5. 30 Mail of Contact Form.....	89
Figure 5. 31 Mail Template of Contact Form.....	90
Figure 5. 32 Model of User.....	91
Figure 5. 33 Controller of Authentication.....	92
Figure 5. 34 Middleware to Check User Access.....	93
Figure 5. 35 Model of Visitor.....	93
Figure 5. 36 Controller of Dashboard.....	94
Figure 5. 37 Middleware to Record Visitors.....	95
Figure 5. 38 Controller of Edit Profile.....	96
Figure 5. 39 Controller of Edit Password.....	97
Figure 5. 40 Model of Slider Data.....	98
Figure 5. 41 Controller of Slider Data (Part 1).....	99
Figure 5. 42 Controller of Slider Data (Part 2).....	100
Figure 5. 43 Model of Product Data.....	101
Figure 5. 44 Controller of Product Data (Part 1).....	102
Figure 5. 45 Controller of Product Data (Part 2).....	103
Figure 5. 46 Model of Catalog Data.....	104
Figure 5. 47 Controller of Catalog Data (Part 1).....	105
Figure 5. 48 Controller of Catalog Data (Part 2).....	106
Figure 5. 49 Model of About Data.....	107
Figure 5. 50 Controller of About Data.....	108
Figure 5. 51 Model of Contact Data.....	109
Figure 5. 52 Controller of Contact Data.....	110
Figure 5. 53 Controller of Account Data (Part 1).....	111
Figure 5. 54 Controller of Account Data (Part 2).....	112