

**DESIGNING E-LEARNING PLATFORM WITH ATOMIC DESIGN
FRONT END METHODOLOGY FOR ATMA JAYA COLLEGE
COMMUNITY**

by

Novita Dian Anugraheni (段按按)

A Thesis

*Submitted to the Faculty of Nanjing Xiaozhuang University
in Partial Fulfillment of the Requirements for the degree of*

Bachelor of Software Engineering



School of Information Engineering

Fangshan, Nanjing

May 2023

HALAMAN PENGESAHAN

Tugas Akhir Berjudul

DESIGNING E-LEARNING PLATFORM WITH ATOMIC DESIGN FRONT END METHODOLOGY FOR ATMA
JAYA COLLEGE COMMUNITY

yang disusun oleh

Novita Dian Anugraheni

190710056

dinyatakan telah memenuhi syarat pada tanggal 20 Juli 2023

		Keterangan
Dosen Pembimbing 1	: Th. Adi Purnomo Sidhi, S.T., M.T.	Telah Menyetujui
Dosen Pembimbing 2	: Yonathan Dri Handarkho, ST., M.Eng, Ph.D.	Telah Menyetujui
Tim Penguji		
Penguji 1	: Th. Adi Purnomo Sidhi, S.T., M.T.	Telah Menyetujui
Penguji 2	: Stephanie Pamela Adithama, S.T., M.T.	Telah Menyetujui
Penguji 3	: Herlina, S.Kom., M.Eng	Telah Menyetujui

Yogyakarta, 20 Juli 2023

Universitas Atma Jaya Yogyakarta

Teknologi Industri

Dekan

ttd.

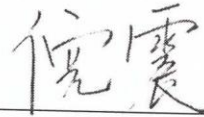
Dr. A. Teguh Siswanto, M.Sc.

Dokumen ini merupakan dokumen resmi UAJY yang tidak memerlukan tanda tangan karena dihasilkan secara elektronik oleh Sistem Bimbingan UAJY. UAJY bertanggung jawab penuh atas informasi yang tertera di dalam dokumen ini

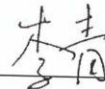
To: Dean Zheng Hao
School of Information Engineering

This thesis, written by Novita Dian Anugraheni, and entitled “DESIGNING E-LEARNING PLATFORM WITH ATOMIC DESIGN FRONTEND METHODOLOGY FOR ATMA JAYA COLLEGE COMMUNITY”, having been approved in respect to style and intellectual content, is referred to you for judgment.

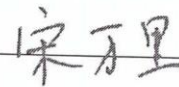
We have read this thesis and recommend that it be approved.



Ni Zhen



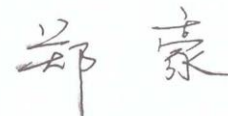
Li Qing



Song Wanli

Date of Defense: June 6, 2023

The thesis of Novita Dian Anugraheni is approved.



Dean Zheng Hao
School of Information Engineering



Zhou Hong
Chief of Foreign Affairs Office

Nanjing Xiaozhuang University, 2023

To: Dean Xiangjun Zhao
School of Information Engineering

This thesis, written by Novita Dian Anugraheni, and entitled “DESIGNING E-LEARNING PLATFORM WITH ATOMIC DESIGN FRONTEND METHODOLOGY FOR ATMA JAYA COLLEGE COMMUNITY”, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this thesis and recommend that it be approved.

Li Qing

Type the name of committee member name

Ni Zhen

Date of Defense: May 25, 2023

The thesis of Novita Dian Anugraheni is approved.

Dean Xiangjun Zhao
School of Information Engineering

Zhou Hong
Chief of Foreign Affairs Office

Nanjing Xiaozhuang University, 2023

ACKNOWLEDGMENTS

I want to thank Jesus Christ, because of His blessings, I can finish a thesis entitled “DESIGNING E-LEARNING PLATFORM WITH ATOMIC DESIGN FRONTEND METHODOLOGY FOR ATMA JAYA COLLEGE COMMUNITY” The writing of this thesis is carried out to fulfill one of the requirements to obtain an Applied Bachelor's degree at Nanjing Xiaozhuang University and Atma Jaya Yogyakarta University. The preparation of this thesis can run smoothly, regardless of guidance and support from various parties. For this reason, the author would like to thank all those who have helped, especially:

1. Both parents, Mr Heru Wahyudi and Mrs Marsiyana Tri. My sisters : Ribka, Ema, well as large families who always provide infinite material support and emotional support.
2. Mrs. Sophie Mou and Mrs. Wang Jing (王晶) as my mother in Nanjing, who take care of my study. Thank you for helping me for two years in Nanjing Xiaozhuang University.
3. My supervisors who has provided time and thought to guide the Author in completing each stage of the thesis work.
4. Lecturers in Nanjing Xiaozhuang University and Atma Jaya Yogyakarta University, who have been guiding me through 4 years of education.
5. My fellow study-abroad orders in Nanjing Xiaozhuang University that accompany me through 2 years of studying abroad.
6. Jesus, who is accompanying me writing this thesis and boost my morale when I tell Him about problem in my development.
7. Finally, to myself who have done his best and those who cannot be mentioned one by one, who have helped and support me to finish this thesis.

Hopefully, God always blesses those mentioned above and all their sacrifice. Finally, the authors hope that this thesis can be useful for all parties

Jakarta, May 16th, 2023

Novita Dian Anugraheni

TABLE OF CONTENTS

TABLE OF CONTENTS.....	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
ABSTRACT.....	ix
CHAPTER 1. INTRODUCTIONS.....	9
1.1 The Background	9
1.2 Significant of the study	10
1.2.1. Formulation of Problems	10
1.2.2. Limitation of problems	10
1.2.3. Research Purpose	11
1.2.4. Research Benefit.....	11
1.3 Literature Review.....	12
1.4 Schedule.....	15
1.5 Organizational Structure of the Paper	15
CHAPTER 2. SOFTWARE REQUIREMENTS.....	17
2.1 Tools and technology	17
2.1.1. Reactjs.....	17
2.1.2. Nextjs	17
2.1.3. Nodejs	18
2.1.4. Mongodb.....	18
2.1.5. Boostrap	19
2.1.6. Visual Studio.....	19
2.1.7. Postman.....	20
2.2 Functional requirements.....	22
2.2.1. Frontend UI using Atomic Design	22

2.2.2.	Authentication and Authorization.....	22
2.2.3.	Registration.....	23
2.2.4.	Login.....	23
2.2.5.	CRUDE.....	23
2.3	Non-Functional Requirements	24
2.3.1	Performance	24
2.3.2	Reliability.....	24
2.3.3	Security	24
CHAPTER 3.	ANALYSIS DESIGN.....	25
3.1	Architecture Design.....	25
3.2	Database Design.....	29
3.2.1.	Database table.....	29
3.2.2.	Database diagram.....	30
3.3	Module Design.....	32
3.3.1.	Prototype Atomic Design.....	32
3.3.2.	Login admin.....	32
3.3.3.	See Transaction list order.....	32
3.3.4.	See Payment List Order.....	32
3.3.5.	Accept and Reject Order.....	32
3.3.6.	CRUDE Category Product.....	33
3.3.7.	CRUDE Voucher Product.....	33
3.3.8.	CRUDE Coin for payment.....	33
CHAPTER 4.	IMPLEMENTATION	35
4.1	Login Client Side	35
4.1.1.	Login flowchart and explanation	35
4.2	Login and Register Admin Side.....	36
4.2.1.	Login flowchart and explanation	36
4.3	See Order List Module.....	37

4.3.1.	Order list flowchart and explanation.....	38
4.4	Action Order Request.....	38
4.4.1.	Order request flowchart and explanation.....	38
4.4.2.	Order request user interface.....	38
4.5	Detail Accept/Reject Order Request.....	39
4.5.1.	Accept/Reject order request flowchart explanation.....	39
CHAPTER 5.	RESULT.....	42
5.1	Login user client & admin interface.....	42
5.2	Order list user interface.....	45
5.3	Accept/Reject order user interface.....	46
5.4	Order request user interface.....	47
CHAPTER 6.	SUMMARY & CONCLUSIONS.....	50
5.1	Summary.....	50
5.2	Suggestions.....	50
References	50

LIST OF TABLES

TABLE 1-1. SCHEDULE	15
TABLE 2-1 LOGIN REQUIREMENT FIELD	23
TABLE 2-2. CRUDE REQUIREMENT TABLE	23
TABLE 3-1. UESR TABLE	29
TABLE 3-2. TRANSACTION TABLE	29
TABLE 3-3. PAYMENT TABLE	30



LIST OF FIGURES

FIGURE 1. Architecture Design Client Side	25
FIGURE 2. Architecture Design Atomic Design Client Front End.....	26
FIGURE 3. Architecture Design AtmaShare.....	28
FIGURE 4. Architecture Design AtmaShare.....	31
FIGURE 6. Login module flowchart	34
FIGURE 7. Login client side module flowchart....	35
FIGURE 8. Login admin side module flowchart	35
FIGURE 9. Login user interface show warning when input not as required	36
FIGURE 10. Register module flowchart	37
FIGURE 11. Order List module flowchart	38
FIGURE 11. List order transaction module flowchart.....	39
FIGURE 12. List order transaction module flowchart.....	39
FIGURE 13. Order list appearance.....	40
FIGURE 14. Order request list flowchart.....	41
FIGURE 15. Order request list flowchart.....	42
FIGURE 16. Order request list flowchart.....	42
FIGURE 17. Accept/Reject order request flowchart	44
FIGURE 18. Accept/Reject order request flowchart	45

ABSTRACT

E-Learning platform specific on sharing files is an essential tool for college communities to manage their academic work efficiently. With a large number of students, faculty members, and staff working on different projects simultaneously, it becomes challenging to keep track of all the files, course material and ensure they are accessible to everyone who needs them. A shared project platform can help solve this problem by providing a central location for all project-related files and facilitating collaboration. Using a project platform, users can upload and share files, comment on documents, assign tasks, and set deadlines. This platform can also help reduce the workload on professors and teaching assistants by automating certain tasks, such as grading and providing feedback. It can also be used to facilitate group discussions, share resources, and provide access to additional learning materials. Moreover, a project platform sharing files can help promote a more inclusive learning environment, ensuring that all students have equal access to resources and can participate fully in group projects. By encouraging collaboration and transparency, a project platform sharing files can help college communities achieve their academic goals more efficiently.

Keyword: E-learning platform, website platform, Sharing resources