



PRACTICAL WORK - IF184801

Website Building for Store File and Partner's Data on Community Development Center

PT. Telekomunikasi Indonesia Witel Surabaya Utara

Jl. Mergoyoso No. 1 – 3, Kedungdoro, Kec. Tegalsari, Kota Surabaya, Jawa Timur
60261

Period: 6 February 2023 - 6 March 2023

By:

Rafi Akbar Rafsanjani

05111942000004

Muh Hilmy Thoriq YR

05111942000012

Department Supervisor

Agus Budi Raharjo, S.Kom, M.Kom., Ph.D.

Field Supervisor

Djoko Sudyono

INFORMATICS ENGINEERING DEPARTMENT

Faculty of Intelligent Electrical and Informatics Technology Institute

Technology Sepuluh Nopember

Surabaya 2023

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VALIDITY SHEET

PRACTICAL WORK REPORT

WEBSITE BUILDING FOR STORING FILES AND PARTNER'S DATA ON COMMUNITY DEVELOPMENT CENTER

By:

Rafi Akbar Rafsanjani 05111942000004

Muh Hilmy Thoriq YR 05111942000012

Knowing,

Field Supervisor



(Djoko Sudiyono)

Agree,

Department Supervisor

(Agus Budi Raharjo, S.Kom, M.Kom.,
Ph.D..)

SURABAYA

27 MARCH 2023

Performance Evaluation

WEBSITE BUILDING FOR STORING FILES AND PARTNER'S DATA ON COMMUNITY DEVELOPMENT CENTER

Student Name : Rafi Akbar Rafsanjani
Student ID : 05111942000004
Departement : Informatika FTEIC-ITS
Department Supervisor : Agus Budi Raharjo, S.Kom,
M.Kom., Ph.D.
Field Supervisor : Djoko Sudiyono

Student Name : Muh Hilmy Thoriq YR
Student ID : 05111942000012
Department : Informatika FTEIC-ITS
Department Supervisor : Agus Budi Raharjo, S.Kom,
M.Kom., Ph.D..
Field Supervisor : Djoko Sudiyono

ABSTRACT

PT Telekomunikasi Indonesia Tbk is a state-owned information and communications technology enterprise and telecommunications network in Indonesia. PT Telekomunikasi Indonesia Tbk has a partnership program in the form of lending funds to Usaha Mikro dan Kecil (UMK) partner, so that existing UMK can develop and produce a quality product that can compete in the market. In line with this program, Telekomunikasi has a corporate system to store UMK partner data but does not include the required attachments. The SS HC & Finance Unit which works to run that program needs a local system that not only stores but also manages all UMK partner data so it will be easily accessible and flexible.

With that problem, we intend to create a new system / website to fulfill what clients really need. In our work, first we design the website system, here, we make the flowchart using StarUML, use case diagram and the UI/UX prototype is created using Figma. Before we make the website, we show and consult our design to the client. After it fits with what they want, we transform it into a website that implements Laravel & phpMyAdmin. From the website that we create, users can input & see the details of the data, upload, download, and delete attachments. The Website is successfully run and deployed so the client can use it.

Keywords : Laravel, phpMyAdmin, UMK, Website

INTRODUCTION

Thanks to Allah SWT. Because by his grace he was able to fulfill one of his duties as a student of the Faculty of Science, Practical of Work.

We recognize that there are still shortcomings not only in the preparation of this report but also in the implementation of the actual work. Nonetheless, we hope that this report will be informative and helpful to our readers. We look forward to constructive criticism and suggestions for improving this practice report booklet.

I would also like to express my gratitude to those who directly and indirectly carried out the practical work leading up to the preparation of this report. These people are

1. author's parents.
2. Agus Budi Raharjo, S.Kom, M.Kom., Ph.D. as Supervisor Lecturer and Practical Coordinator.
3. Djoko Sudyono as supervisors in the field of practice.

Surabaya, 27th March 2023

Author's

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TABLE OF CONTENTS

VALIDITY SHEET	3
Performance Evaluation	4
ABSTRACT	5
INTRODUCTION.....	6
TABLE OF CONTENTS	8
LIST OF TABLES	14
LIST OF CODES	16
CHAPTER I PRELIMINARY	18
1.1. Background	18
1.2. Purpose.....	19
1.3. Benefit	19
1.4. Problem Formulation.....	19
1.5. Location and Time of Practical Work	19
1.6. Practical Work Methodology	20
1.6.1 Formulation of the Problem	20
1.6.2 Study of Literature.....	20
1.6.3 Analysis and Design.....	20
1.6.4 System Implementation.....	21
1.6.5 Testing and Evaluation.....	21
1.6.6 Conclusion and Recommendation.....	21
1.7. Report Systematic	21
1.7.1 Chapter I Preliminary	21
1.7.2 Chapter II Company Profile	22
1.7.3 Chapter III Literature Review	22

1.7.4	Chapter IV Implementasi Sistem	22
1.7.5	Chapter V Testing and Evaluation	22
1.7.6	Chapter VI Conclusion and Recommendation	22
	CHAPTER II COMPANY PROFILE	24
2.1.	PT Telekomunikasi Indonesia Tbk.....	24
2.2.	Company Logo.....	25
2.3.	Company Vision and Mission	25
2.3.1	Vision	25
2.3.2	Mission	25
2.4.	Organizational structure	26
2.5.	Company Group Structure.....	27
	CHAPTER III.....	29
	LITERATURE REVIEW.....	29
3.1.	StarUML.....	29
3.2.	Figma.....	30
3.3.	Web Programming.....	31
3.4.	HTML.....	31
3.5.	CSS.....	32
3.6.	Javascript.....	33
3.7.	Bootstrap	33
3.8.	Laravel.....	34
3.9.	phpMyAdmin	35
	CHAPTER IV.....	38
	SYSTEM IMPLEMENTATION.....	38
4.1.	Creating Use Case Diagram	38
4.2.	Creating Website Flowchart	41
4.3.	Database Architecture	47

4.4. Creating Website Prototype.....	50
4.4.1 Super Admin.....	50
4.4.2 Admin.....	54
4.5. Code Explanation.....	61
CHAPTER V.....	78
TESTING AND EVALUATION.....	78
5.1. Testing Purpose.....	78
5.2. Testing Criteria.....	78
5.3. Testing Scenario.....	78
5.4. Testing Evaluation.....	79
CHAPTER VI.....	81
CONCLUSION AND RECOMMENDATION.....	81
6.1. Conclusion.....	81
6.2. Recommendation.....	81
BIBLIOGRAPHY.....	83
AUTHOR BIOGRAPHY I.....	85
AUTHOR BIOGRAPHY II.....	88

LIST OF FIGURES

Figure 2.1 Logo of PT. Telekomunikasi Indonesia.	25
Figure 2.2 Company Profile Structure.....	27
Figure 3.1 Laravel Architecture Diagram.....	35
Figure 4.1 Use Case Diagram for Super Admin.....	39
Figure 4.2 Use Case Diagram for Admin.	41
Figure 4.3 Flowchart to View Details and Download.	43
Figure 4.4 Flowchart to edit (add notes) Mitra Binaan.....	44
Figure 4.5. Flowchart to Filter Mitra Binaan.....	45
Figure 4.6. Flowchart to Create Mitra Binaan Information	46
Figure 4.7. Flowchart to Upload File.	47
Figure 4.8. Super Admin Table.	48
Figure 4.9 Admin Table.	48
Figure 4.10 Mitra and Lampiran Table.....	49
Figure 4.11. Super Admin Login Page.	50
Figure 4.12. Super Admin Home Page.	51
Figure 4.13. Super Admin Data Mitra Page	52
Figure 4.14. Super Admin Data Admin Page	52
Figure 4.15. Create New Admin.....	53
Figure 4.16. List of Admin Page.	53
Figure 4.17. Admin Login Page.	54

Figure 4.18. Input Data Page.	55
Figure 4.19. Admin Home Page.	55
Figure 4.20. Import Data Page.	56
Figure 4.21. Admin Data Mitra Page	57
Figure 4.22. Detail / Download Page.....	58
Figure 4.23. Upload File Page	58
Figure 4.24. Create Notes Page	59
Figure 4.25. Delete Data Confirmation.	60
Figure 4.26. Login Page.	61
Figure 4.27. Login Page Alert Wrong Username / Password.....	62
Figure 4.28. Login Page Alert No Fill Username.....	62
Figure 4.29. Admin Dashboard.	65
Figure 4.30. Add Mitra Page.	65
Figure 4.31. Add Partner Alert If Partner Code is Less than 11.	66
Figure 4.32. Add Partner Alert if Partner Code is More Than 11. ...	66
Figure 4.33. Add Partner Success.....	67
Figure 4.34. Partner Data Not Found	68
Figure 4.35. Partner Data Filter Found.....	68
Figure 4.36. Import Data.	69
Figure 4.37. Data Import Failed.	70
Figure 4.38. Data Import Success.....	70
Figure 4.39. Modify Partner Recods.....	71
Figure 4.40. Alert when Partner Records are Successfully Updated.	72
Figure 4.41. Upload Partners File Attachment	72
Figure 4.42. Alert Wrong File Type.	73

Figure 4.43. File Attachment Successfully Uploaded.....	73
Figure 4.44. Partner Detail or Download File.	74
Figure 4.45. Delete Mitra Alert	74
Figure 4.47. Add New Admin.	75
Figure 4.46. Super Admin Dashboard.	75
Figure 4.48. New Admin Successfully Added.....	76
Figure 4.49. Delete Admin.	76
Figure 4.50. Super Admin view Mitra Data.	77

LIST OF TABLES

Table 5.1. Test Evaluation Table.....	80
---------------------------------------	----

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LIST OF CODES

Code 4.1 Admincontroller php for Account Authentication.	63
Code 4.2. Web.Php for Web Application Routing Purposes.	64
Code 4.3. Function for Input Only 11 Digits.	67
Code 4.4. Mitraimport.Php for Checking Partner Code from CSV..	71
Code 4.5. Function to Create New Admin.	77

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CHAPTER I

PRELIMINARY

1.1. Background

PT Telekomunikasi Indonesia Tbk is a state-owned information and communications technology enterprise and telecommunications network in Indonesia. As it transforms to become a digital telecommunication company, TelekomunikasiGroup implements a customer-oriented business and company operational strategy.

PT Telekomunikasi Indonesia Tbk has a partnership program in the form of lending funds to Usaha Mikro dan Kecil (UMK) partner, so that existing UMK can develop and produce a quality product that can compete in the market. In line with this program, Telekomunikasi has a corporate system that can store UMK partner data but does not include the required attachments.

The SS HC & Finance Unit which works to run that program needs a local system that not only stores but also manages all UMK partner data so that it is easily accessible and flexible. With this system, users only need to log in, store the UMK partner data via importing the collection of the data in the form of an excel file or input data manually and give notes in the UMK partner data. Besides that, users also can upload, download, and delete attachments.

1.2. Purpose

The purpose of this practical work is to supplement the practical work required at the Nopember Institute of Technology Sepuluh with a two- credit conversion. Also, another goal is to support the management and storage of all UMK partner data that can be useful for PT Telekomunikasi Indonesia Tbk especially SS HC & Finance Unit, Witel Surabaya Utara.

1.3. Benefit

With the application to be made, it is hoped that it can become the basis for improvement or application development will be carried out by PT. Telekomunikasi Indonesia Tbk.

1.4. Problem Formulation

Here is the formula of the problem in this real work:

1. How to create a design system that is easy to understand by the user/client.
2. How to create a new system that is really needed by PT Telekomunikasi Indonesia Tbk especially SS HC & Finance Unit, Witel Surabaya Utara.

1.5. Location and Time of Practical Work

This practical work is done at the following times and places:

Location	: Telekomunikasi Mergoyoso Surabaya
Time	: 6/2 - 6/3/2023
Working days	: Monday to Friday
Working hours	: 09.00 - 16.30

1.6. Practical Work Methodology

1.6.1 Formulation of the Problem

At this stage, we need to know what problems arise and can be solved or optimized. Then we also need to know all the requirements of the problem.

1.6.2 Study of Literature

After the formulation of the system problem to be performed has been determined, a bibliographic study of its implementation is performed. At this stage, the process of research, learning, and information gathering related to the implementation of the system is carried out. Information can be obtained from the Internet or from previous similar projects where it is possible.

1.6.3 Analysis and Design

This step includes an explanation of the results of the literature review performed. Among the many methods found in the process of learning literature, it has been analyzed which method is the most appropriate and effective to use in solving problems. For the design system, we plan to use StarUML and Figma applications. On the website, we plan to use the most familiar to us, which is Laravel and MySQL.

1.6.4 System Implementation

At this stage the implementation program is explained that is used in the process of making a website to manage & store UMK partners. This section includes an explanation of making website design using StarUML & Figma and creating websites using Laravel & MySQL.

1.6.5 Testing and Evaluation

The system testing carried out is a test of the website system that we have deployed.

1.6.6 Conclusion and Recommendation

In this chapter, the conclusions that can be drawn and recommendations for carrying out practical work are presented.

1.7. Report Systematic

This practical work report consists of seven chapters with the following details:

1.7.1 Chapter I Preliminary

This chapter describes the background of the problem, purposes, implementation time, the systematics of practical work, and writing practical work reports.

1.7.2 Chapter II Company Profile

This chapter will describe in detail the profile of PT Telekomunikasi Indonesia Tbk , where we carry out work practices.

1.7.3 Chapter III Literature Review

This chapter describes the literature review used in completing practical work at PT Telekomunikasi IndonesiaTbk.

1.7.4 Chapter IV Implementasi Sistem

This chapter contains an explanation of the steps taken for creating the design system & website.

1.7.5 Chapter V Testing and Evaluation

This chapter describes the results of testing and evaluation of the design & website that has been made during the implementation of practical work.

1.7.6 Chapter VI Conclusion and Recommendation

In this chapter, the conclusions that can be drawn and recommendations will be presented during the practical work.

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CHAPTER II

COMPANY PROFILE

2.1. PT Telekomunikasi Indonesia Tbk

PT Telekomunikasi Indonesia Tbk is a state-owned information and communications technology enterprise and telecommunications network in Indonesia. The Government of Indonesia is the majority shareholder with 52.09 percent shares while the remaining 47.91 percent shares belong to public shareholders. Telekomunikasi's shares are traded on the Indonesian Stock Exchange (IDX) where it is listed as "TLKM" and on the New York Stock Exchange (NYSE), which lists it as "TLK".

As it transforms to become a digital telecommunication company, TelekomunikasiGroup implements a customer-oriented business and company operational strategy. The transformation aims to trim down TelekomunikasiGroup's organization to be leaner and more agile in adapting to the fast-changing nature of the telecommunications industry. The new organization is expected to be able to improve efficiency and be more effective in producing a quality customer experience.

TelekomunikasiGroup's activities grow and change in accordance with the development of new technology, information and digitalization, but still within the corridor of telecommunications and information technology.

2.2. Company Logo



Figure 2.1 Logo of PT. Telekomunikasi Indonesia.

2.3. Company Vision and Mission

2.3.1 Vision

To build a more prosperous and competitive nation as well as deliver the best value to our stakeholders.

2.3.2 Mission

1. Advance rapid buildout of sustainable intelligent digital infrastructure and platforms that is affordable and accessible to all.
2. Nurture best-in-class digital talent that helps develop the nation's digital capabilities and increase digital adoption.
3. Orchestrate the digital ecosystem to deliver superior customer experience.

2.4. Organizational structure

The following is the board of commissioners at PT.

Telekomunikasi Indonesia Tbk :

- A. Main Commissioner / Independent Commissioner: Bambang Permadi Soemantri Brodjonegoro
- B. Independent Commissioner: Wawan Iriawan
- C. Independent Commissioner: Bono Daru Adji
- D. Independent Commissioner: Abdi Negara Nurdin
- E. Commissioner: Marcelino Pandin
- F. Commissioner: Ismail
- G. Commissioner: Rizal Mallarangeng
- H. Commissioner: Isa Rachmatarwata
- I. Commissioner: Arya Mahendra Sinulingga

There is also the list of directors at PT. Telekomunikasi Indonesia Tbk :

- A. President director : Ririek Adriansyah
- B. Director of Finance and Risk Management: Heri Supriadi
- C. Director of Consumer Services: FM Venusiana R
- D. Director of Network & IT Solutions: Herlan Wijanarko
- E. Digital Business Director: Muhamad Fajrin Rasyid
- F. Director of Strategic Portfolio: Budi Setyawan Wijaya

2.5. Company Group Structure

The following is the corporate group structure of PT. Telekomunikasi Indonesia Tbk :



Figure 2.2 Company Profile Structure.

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CHAPTER III

LITERATURE REVIEW

In this chapter, the theoretical basis used during the practical work process will be explained.

3.1. StarUML

StarUML is a modeling and design software application for creating UML diagrams and other forms of models. P. Sinha and K. Saurabh's article "An Overview of UML Modeling and Design Tools: StarUML" states that "StarUML provides a wide range of UML diagrams and modeling features, including use case, class, sequence, activity, and state diagrams, as well as code generation and reverse engineering capabilities" (Sinha & Saurabh, 2018).

One of StarUML's primary features is its user-friendly interface, which allows users to generate and alter diagrams without requiring considerable technical knowledge. It also comes with a large number of templates and symbols, as well as the ability to import and export diagrams in a variety of formats.

Another feature of StarUML is its open-source nature, which allows for user customization and expansion. This has resulted in the creation of a number of plugins and add-ons that can improve the tool's usefulness.

In conclusion, StarUML is a software modeling and design tool for creating UML diagrams and other sorts of models. Its benefits

include a user-friendly interface, a large selection of features and templates, and the fact that it is open-source, which enables for customization and community assistance.

3.2. Figma

Figma is a web-based design tool that may be used to create user interfaces, graphics, and other visual designs. M. O. Gencoglu's article "Figma: A Web-Based Collaborative Interface Design Tool" states that "Figma provides a range of design tools, including vector editing, layout grids, and prototyping features, as well as the ability to collaborate and share designs in real-time with team members" (Gencoglu, 2021).

One of Figma's primary features is that it is web-based, allowing users to work on designs from anywhere with an internet connection. It also has capabilities for real-time collaboration and comments, which may help teams collaborate more efficiently and effectively.

Another advantage of Figma is its user-friendliness and simple interface, which allows users to develop designs fast and effortlessly without requiring considerable technical knowledge. It also comes with a number of design templates and resources, as well as connections with various design and development tools.

Figma is a web-based design tool for generating user interfaces and other visual designs. Its web-based nature, real-time collaboration capabilities, simplicity of use, and range of design resources are among its benefits.

3.3. Web Programming

online programming is the process of developing dynamic and

interactive online applications with the help of computer languages and frameworks. P. Mohapatra and S. P. Mishra's article "Web Programming with HTML5, CSS, and JavaScript" states that "web programming involves the use of a variety of tools and technologies, including HTML, CSS, JavaScript, and server-side languages such as PHP and Python" (Mohapatra & Mishra, 2019).

Creating aesthetically beautiful and usable user interfaces is an important component of web programming. This includes using HTML to structure a web page's content, CSS to design it, and JavaScript to add interactivity and dynamic behavior.

Working with server-side languages such as PHP and Python to handle server-side processing and database interfaces is also part of web development. Creating dynamic web pages that show data from a database, processing user input and form submissions, and managing user sessions are all examples of this.

In essence, web programming is the process of developing dynamic and interactive online applications utilizing programming languages and frameworks such as HTML, CSS, JavaScript, and server-side languages such as PHP and Python.

3.4. HTML

HTML (Hypertext Markup Language) is a markup language that is used to construct and arrange web page content. It defines a standard method for describing the style and formatting of online

content, such as text, graphics, and multimedia components.

HTML, as defined by the "Journal of Web Engineering," is "the standard markup language used to create web pages, defining the structure and content of a page using a set of tags and attributes" (Tselios & Liotta, 2017).

According to the "Journal of Educational and Social Research", "HTML provides a hierarchical structure for documents and enables the creation of hyperlinks between web pages, allowing users to navigate between pages" (Mohammadhosseini, 2016).

HTML is continually changing and being updated with new versions, the most recent being HTML5. The "Journal of Computer Science and Technology" reports that HTML5 "introduces new elements, attributes, and APIs to enable web developers to create rich, interactive, and dynamic web applications" (Bilal & Khan, 2015).

Overall, HTML is a critical component of web development and is used to generate web pages and online apps in combination with other programming languages and tools. The above-mentioned periodicals give a thorough grasp of HTML and its diverse uses in web development.

3.5. CSS

CSS is a style sheet language that is used to specify the visual presentation of a web page or application. It's used to isolate a web page's content from its presentation and layout, allowing web designers to construct sophisticated and dynamic designs without changing the core HTML syntax.

CSS, as defined by the "International Journal of Emerging Technology and Advanced Engineering," "provides a mechanism to separate the presentation of a web page from its content, allowing web developers to easily control the visual style of a page through a set of rules and properties" (Singh & Yadav, 2013).

CSS is continually changing and being updated with new versions, the most recent being CSS3. CSS3 "introduces a range of new features, including advanced selectors, media queries, and animations, which enable web developers to create more complex and dynamic layouts," according to the "Journal of Web Engineering" (Tselios & Liotta, 2017).

Overall, CSS is an important part of web development since it works with HTML and other computer languages to produce aesthetically appealing and responsive web pages and applications. The above-mentioned periodicals give a thorough grasp of CSS and its varied uses in web development.

3.6. Javascript

JavaScript is a dynamic, high-level programming language that is mostly used to construct interactive web pages and user interfaces. It is a client-side scripting language, which means it is executed on the user's computer rather than on the web server. JavaScript is commonly used to create online applications, games, and mobile apps.

A. Singh and S. Yadav's essay "A Review on Web Designing Languages: HTML, CSS, and JavaScript" states that "JavaScript is used for creating dynamic and interactive web pages, validating user inputs, and creating web-based games and applications" (Singh & Yadav, 2013).

JavaScript's capability may be expanded by using libraries and frameworks such as jQuery and AngularJS. These tools give pre-built code and modules to ease the development process and make complicated applications easier to design.

JavaScript has grown greatly throughout the years, with ECMAScript 2019 being the most recent version. "JavaScript has become an essential programming language for web development," according to the Journal of online Engineering, "and its popularity is reflected in the wide range of tools and frameworks available for the language" (Tselios & Liotta, 2017).

In conclusion, JavaScript is a powerful and extensively used programming language that is essential for web development. It is

continually changing and has several applications, ranging from producing dynamic web sites to designing complicated apps.

3.7. Bootstrap

Bootstrap is a popular front-end framework for generating mobile-first and responsive web sites. It was created by Twitter and is currently an open-source project with a significant contributor community. J. M. Ortega and J. P. Román write in their article "Bootstrap: A Review of its Advantages and Disadvantages" that "Bootstrap provides pre-built HTML, CSS, and JavaScript components that can be easily integrated into a website, making it faster and easier to develop a responsive design" (Ortega & Román, 2017).

Bootstrap comes with a plethora of customisable components, such as buttons, forms, modals, and navigation menus, which can be readily customized to match the appearance and feel of a website. It also contains a flexible grid system, which enables developers to construct layouts that adjust to multiple screen sizes, making it excellent for developing mobile-friendly websites.

One of the benefits of choosing Bootstrap is its extensive popularity. This implies that there is a huge developer community that is familiar with the framework and can give assistance and resources. However, one downside of utilizing Bootstrap is that it might result in websites that seem identical to one another because many developers utilize the same pre-built components and styles.

In summary, Bootstrap is a popular front-end framework that provides pre-built components and a responsive grid system for creating mobile-first and responsive web pages. Its advantages include its ease of use and large community of support, while a potential disadvantage is the risk of creating websites that look similar to others that use the same framework.

3.8. Laravel

Laravel is a PHP-based web application framework that makes it easier and faster to create high-quality, scalable online apps. B. Shinde and A. Surve's article "An Overview of Laravel PHP Web Application Framework" states that "Laravel provides a rich set of tools and features for developers, including built-in authentication, routing, and database integration, as well as a modular architecture that allows for easy customization" (Shinde & Surve, 2020).

One of Laravel's primary features is its beautiful and expressive syntax, which allows developers to produce clean, legible code. It also provides a number of pre-built components, including as the Blade templating engine, Eloquent ORM, and Artisan command-line interface, which can help to decrease development time and mistakes.

Another feature of Laravel is its active developer community, which contributes to the framework and offers assistance and resources to other developers. This community has contributed to the development of a rich ecosystem of packages and tools that are readily

incorporated into Laravel applications.

Laravel is a PHP web application framework that provides a broad collection of tools and capabilities for developers, as well as a modular design and attractive syntax that make writing high-quality code simple. Its benefits include pre-built components, an active community, and the capacity to scale for complex web applications.

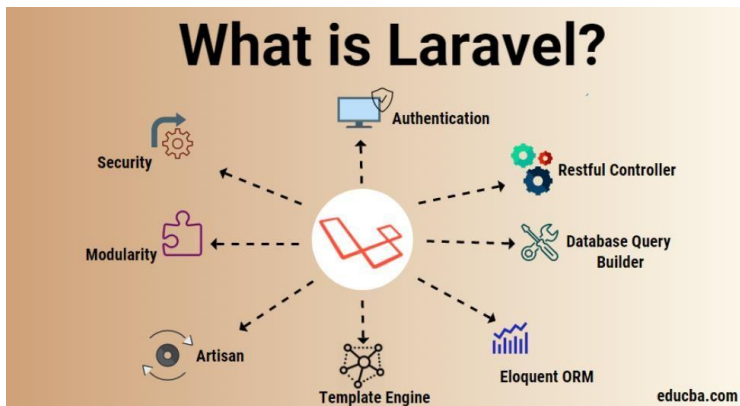


Figure 3.1 Laravel Architecture Diagram.

3.9. phpMyAdmin

phpMyAdmin is a free and open-source web-based database management tool for MySQL. S. Kumar and S. S. Singh's article "A Review of phpMyAdmin for MySQL Database Management" states that "phpMyAdmin provides a graphical user interface that allows users to manage databases, tables, columns, and indexes, as well as perform common tasks such as importing and exporting data" (Kumar & Singh, 2018).

One of the main benefits of phpMyAdmin is its simplicity, since it allows users to interact with MySQL databases using a simple and intuitive online interface rather than the command-line interface. It also includes tools like user administration, query creation, and data visualization to assist users manage their databases quickly and simply.

Another benefit of phpMyAdmin is that it is open-source, allowing users to customize and expand the tool to match their individual needs. This has resulted in the formation of a sizable community of users and developers that contribute to the project and offer assistance and resources to other users.

In essence, phpMyAdmin is a web-based tool for administering MySQL databases, with a simple graphical interface for performing standard database maintenance operations. Its benefits include ease of use, built-in functionality, and open-source nature, which enables customization and community assistance.

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CHAPTER IV SYSTEM IMPLEMENTATION

In this chapter, we will explain the implementation stages of making a design system and website.

4.1. Creating Use Case Diagram

Open StarUML and create Use Case Diagram. Create 2 Use Case Diagrams for super admin and admin. The primary function of a use case diagram is to define the requirements of a system and identify the actors and their interactions with the system. It helps developers to understand the functionality of the system and the different ways in which it can be used by its users. Use case diagrams can also be used to validate the requirements of a system and ensure that they are complete, unambiguous, and consistent.

Another function of a use case diagram is to provide a high-level view of the system's functionality. It enables stakeholders to visualize the interactions between actors and the system and understand how the system will meet their needs. It also helps developers to identify potential problems and areas for improvement in the system's design.

Finally, a use case diagram is a useful communication tool that can be used to explain the functionality of a system to stakeholders who may not have technical expertise. It can be used to describe complex systems in a simple and understandable way, making it an essential tool in software development projects.

In this use case diagram is for Super Admin. The Super Admin here only has 3 actions, which are adding or creating a new admin, monitoring the Development Partner Data (Mitra Binaan), and finally removing the existing admin.

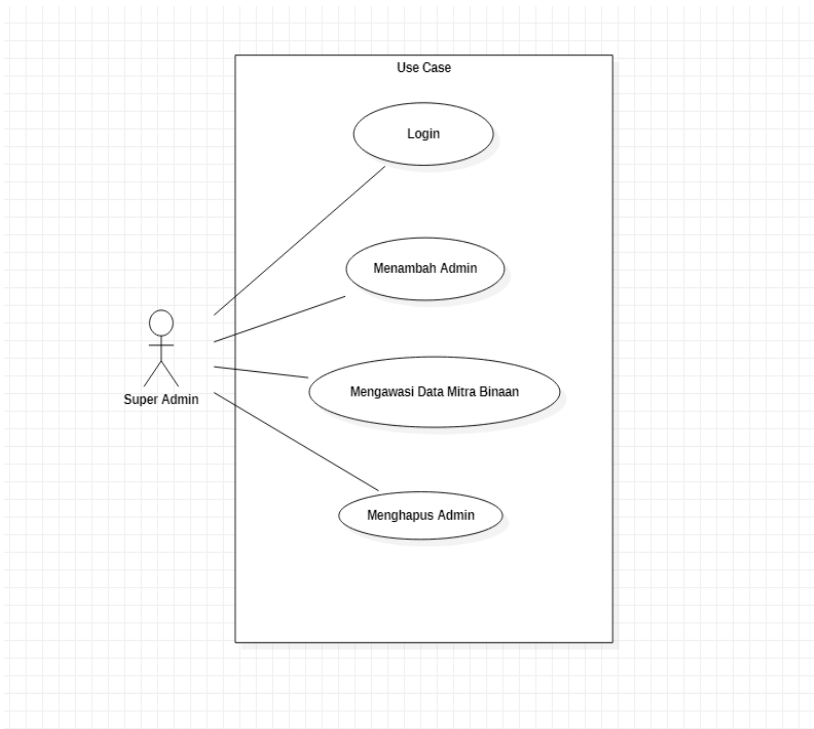


Figure 4.1 Use Case Diagram for Super Admin.

In the second use case is for Admin. There are a lot of actions that Admin can do here. As usual Admin can login. If Admin still don't have an account, Admin can ask the Super Admin to create a new account. Admin can add Data Mitra Binaan and then fill in the Data

Mitra Binaan Information. For filling in the file, Admin can also upload the required attachment data. In addition, if there is a change in the data, Admin can edit the data by adding a notes of the changed data. The description of what has changed will appear later.

Admin can also see the details of Mitra Binaan in which there are attached files that have been uploaded earlier and can also download the attached files. If Admin want to find Mitra Binaan, Admin can also do filtering. Admin can filter based on Mitra Binaan Name and Mitra Binaan Code. Finally, the Admin can also delete Mitra Binaan.

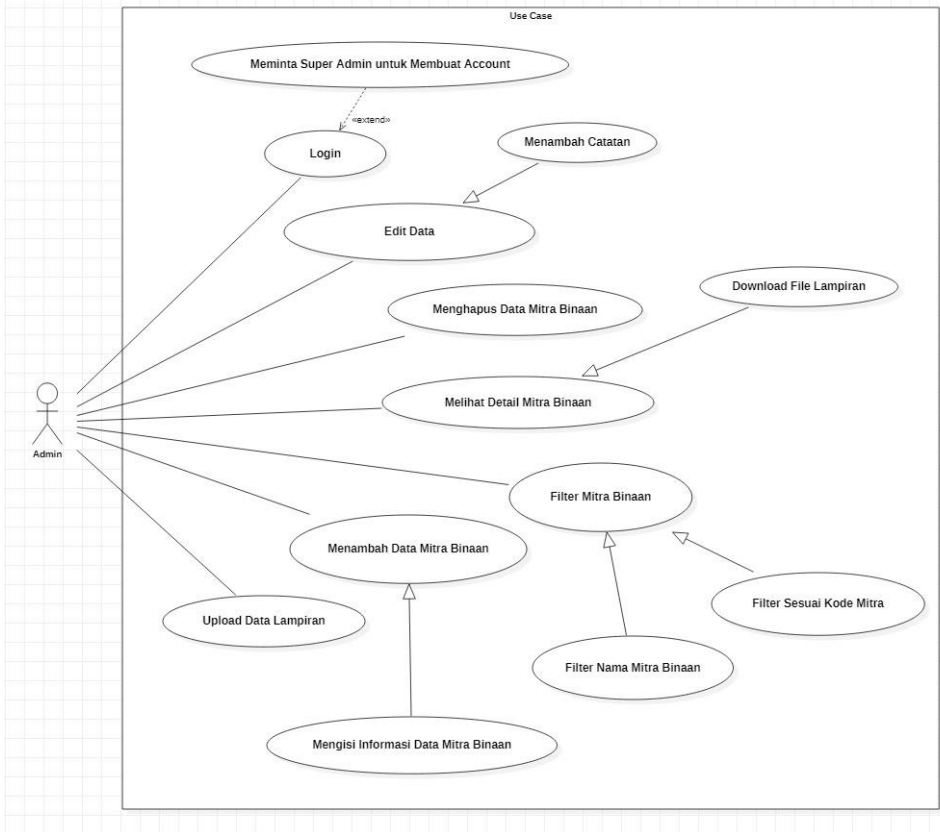


Figure 4.2 Use Case Diagram for Admin.

4.2. Creating Website Flowchart

A flowchart is a graphical representation of a process or workflow. In this work, there are 5 flowcharts made. Each explains a different flow according to their needs. It uses symbols and arrows to illustrate the sequence of steps in a process, the decisions that need to be made, and the flow of information or materials. The primary function of a flowchart is to provide a visual representation of a

process or workflow. It helps users to understand the steps involved in a process and the sequence in which they are performed. By providing a clear overview of the process, it can help users identify potential bottlenecks, inefficiencies, or areas for improvement.

Flowcharts are also useful for identifying decision points in a process. By using decision symbols such as diamonds, flowcharts can represent the different options or paths that can be taken at specific points in the process. This can help users to understand the conditions that need to be met for a particular path to be taken and the consequences of different decisions.

In summary, the function of a flowchart is to provide a clear and concise visual representation of a process or workflow. It facilitates communication and collaboration among team members, helps identify decision points in a process, and can be used to document and improve processes.

This first flowchart will explain the order in which you will see the Development Partner details or download the attached file. The first thing to do is open the website first and enter the username and password. If you don't have an account yet, you can ask the Super Admin to create an account. If you have, just enter according to the username and password that was created earlier. Then the Admin can choose between wanting to see the details of the Mitra Binaan or just downloading the attachment file.

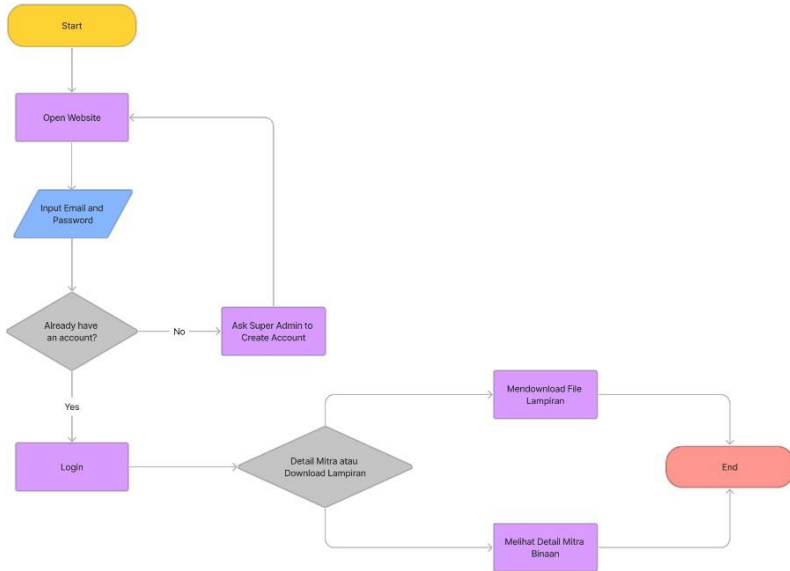


Figure 4.3 Flowchart to View Details and Download.

This second flowchart explains when to make changes to data. For the initial stage it is still the same as before starting from entering the username and password then logging in. Then all you have to do is select edit and add notes will appear for changes to the changed data.

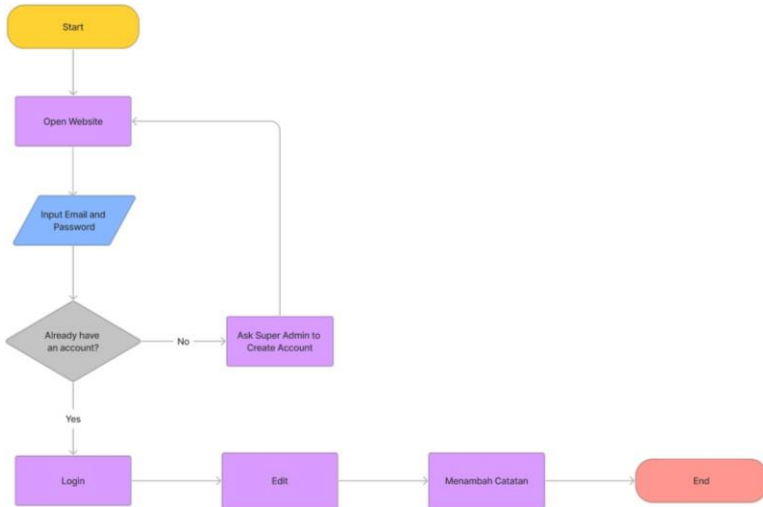


Figure 4.4 Flowchart to edit (add notes) Mitra Binaan.

For the third flowchart, it explains when you want to filter Foster Partner Data. Admin can filter it based on Mitra Binaan Name and filter according to Mitra Binaan Code.

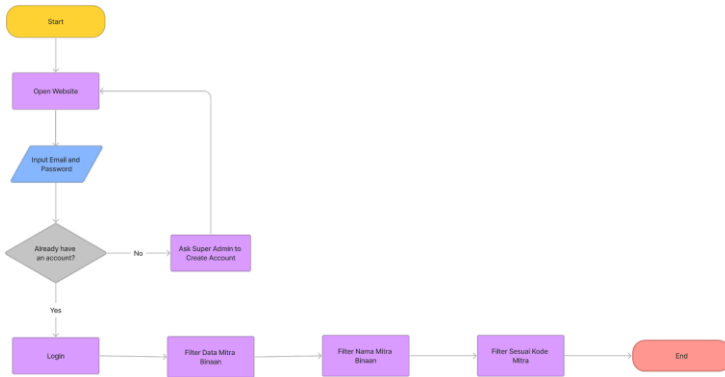


Figure 4.5. Flowchart to Filter Mitra Binaan.

Next, there is a flowchart for creating new Mitra Binaan. The first step is still the same as the previous step. After logging in, the Admin selects add Mitra Binaan data. Then fill in the Mitra Binaan data information such as Partner name and Partner Code. After filling in all the necessary data, can save it.

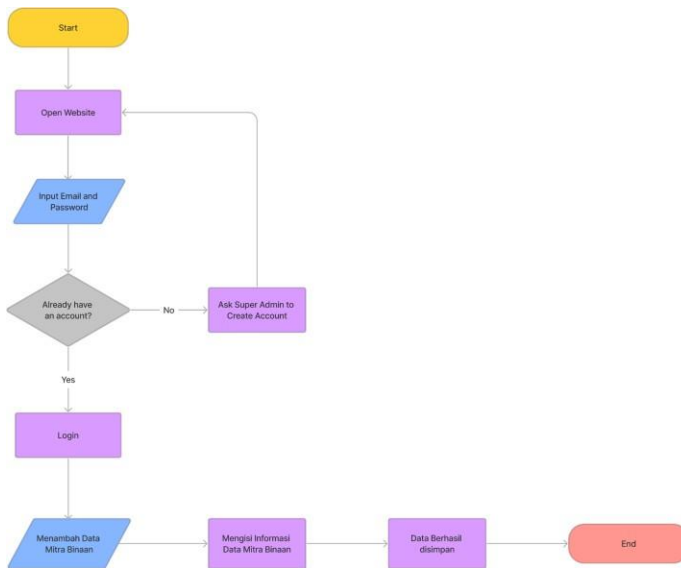


Figure 4.6. Flowchart to Create Mitra Binaan Information

This last flowchart is for uploading the required files. The initial steps are still the same as usual. After logging in, the admin selects the type of file you want to upload, then submits it. The file will be uploaded successfully.

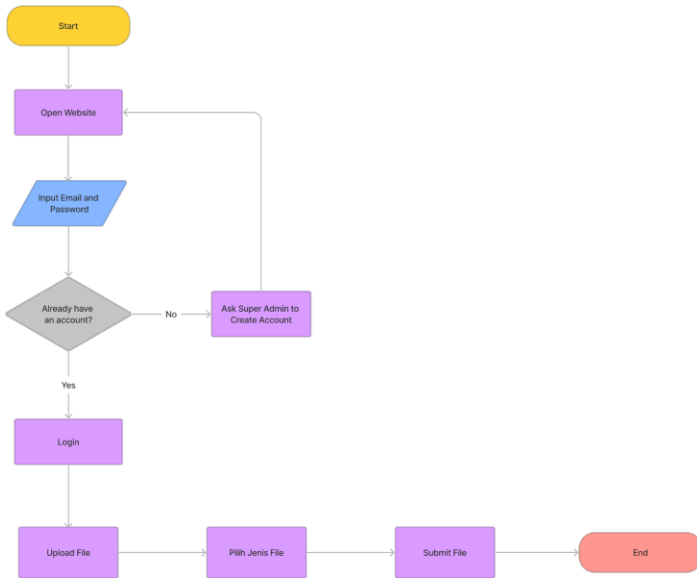
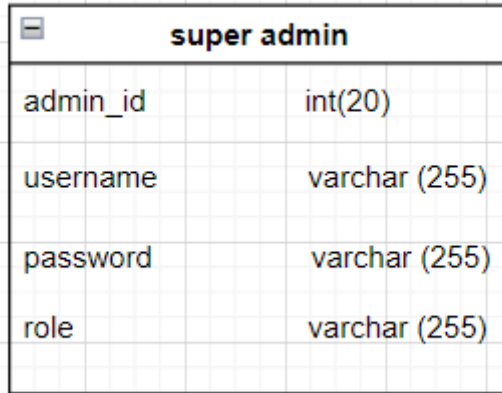


Figure 4.7. Flowchart to Upload File.

4.3. Database Architecture

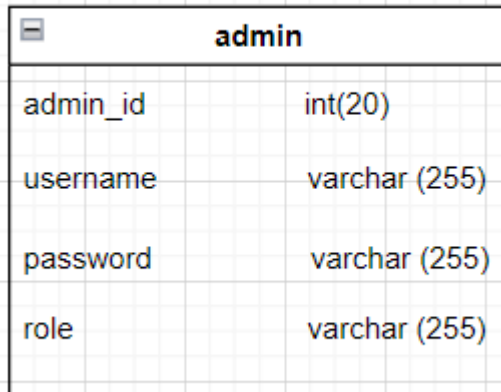
In this database architecture will explain some of the databases used. First there is the Super Admin. In this Super Admin there are 4 attributes, namely admin_id, username, password, and role.



super admin	
admin_id	int(20)
username	varchar (255)
password	varchar (255)
role	varchar (255)

Figure 4.8. Super Admin Table.

Furthermore, in Admin there are also 4 attributes, namely admin_id, username, password, and role.



admin	
admin_id	int(20)
username	varchar (255)
password	varchar (255)
role	varchar (255)

Figure 4.9 Admin Table.

The Partners table also has 4 attributes, namely partner_id, partner name, partner code, and notes. Because one Partner must have several attachments here using One to Many. In the attachment table, there are also 4 attributes, namely, attachment_id, partner code, file type, and filename.

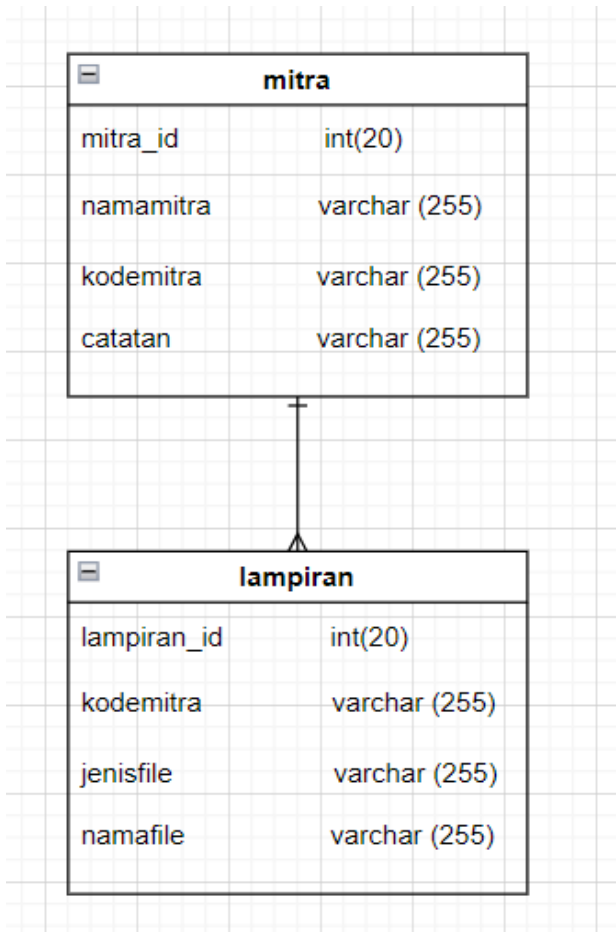


Figure 4.10 Mitra and Lampiran Table.

4.4. Creating Website Prototype

In this chapter, the prototype consists of the user interface & user experience of the website will be explained. The design is divided based on the user rule, there are super admin and admin.

4.4.1 Super Admin

Based on the use case diagram super admin above, they only can oversee UMK partner data and control admin. There are several functions that they can implement / run, the pictures of the prototype shown below.

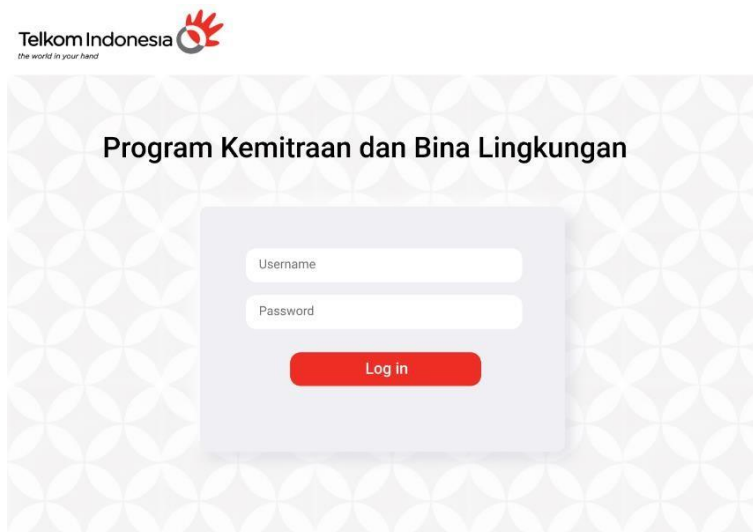


Figure 4.11. Super Admin Login Page.

After successfully log in, the user will be directed to the home page.



Figure 4.12. Super Admin Home Page.

On the home page, 2 options are given. They can choose, between Data Admin or Data Mitra.

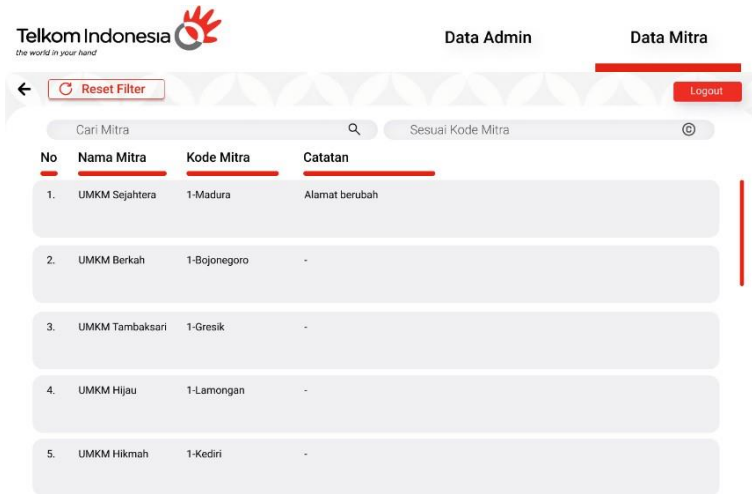


Figure 4.13. Super Admin Data Mitra Page.

On the Data mitra page, user can see the list of the UMK partner data and see the details of each data UMK.

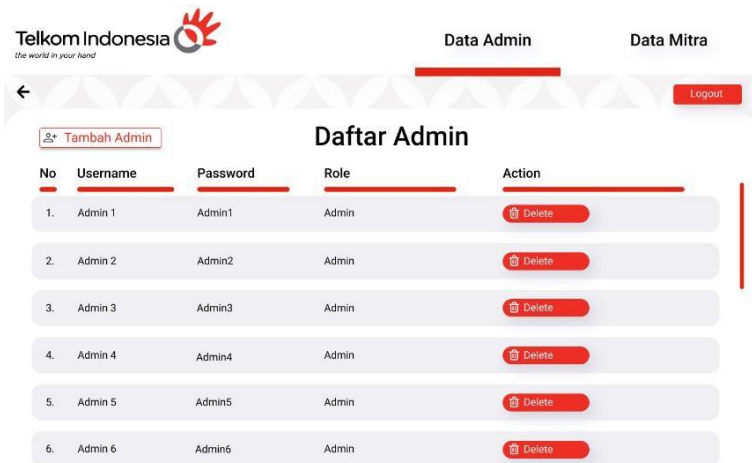


Figure 4.14. Super Admin Data Admin Page.

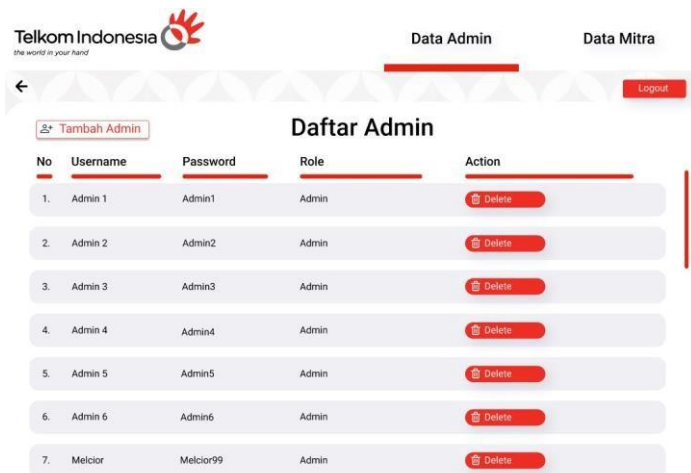
On the Data Admin page, users can see the list of the registered admin and add or register a new admin.



The screenshot shows the 'Tambah Admin' page. At the top left is the Telkom Indonesia logo with the tagline 'the world in your hand'. To the right are navigation links for 'Daftar Admin' (highlighted with a red underline) and 'Data Mitra'. Below the navigation is a back arrow icon. The main heading is 'Tambah Admin'. The form contains two input fields: 'Username' and 'Password'. Below the fields are two buttons: a grey 'Back' button and a red 'Submit' button.

Figure 4.15. Create New Admin.

User also capable to create new Admin by entering username and password.



The screenshot shows the 'Daftar Admin' page. At the top left is the Telkom Indonesia logo with the tagline 'the world in your hand'. To the right are navigation links for 'Data Admin' (highlighted with a red underline) and 'Data Mitra'. Below the navigation is a back arrow icon and a 'Logout' button. A 'Tambah Admin' button is visible in the top left of the main content area. The main heading is 'Daftar Admin'. Below the heading is a table with the following data:

No	Username	Password	Role	Action
1.	Admin 1	Admin1	Admin	Delete
2.	Admin 2	Admin2	Admin	Delete
3.	Admin 3	Admin3	Admin	Delete
4.	Admin 4	Admin4	Admin	Delete
5.	Admin 5	Admin5	Admin	Delete
6.	Admin 6	Admin6	Admin	Delete
7.	Melcior	Melcior99	Admin	Delete

Figure 4.16. List of Admin Page.

Later, after the new Admin has been created, it will appear in the list of available Admins.

4.4.2 Admin

Based on the use case diagram admin above, they can input, edit, give notes, upload, download, and delete attachments of UMK partner data. There are several functions that they can implement / run, the pictures of the prototype shown below.

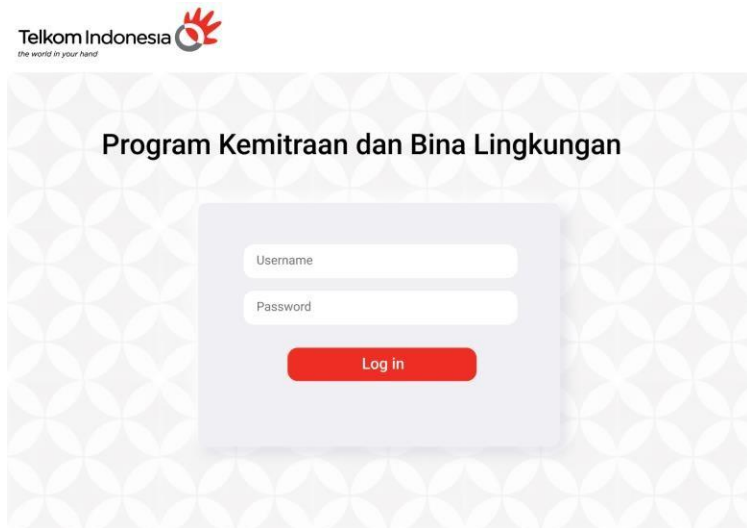


Figure 4.17. Admin Login Page.

After successfully log in, the user will be directed to the home page.



Figure 4.19. Admin Home Page.

On the home page, 2 options are given. They can choose between Masukkan Data or Data Mitra.

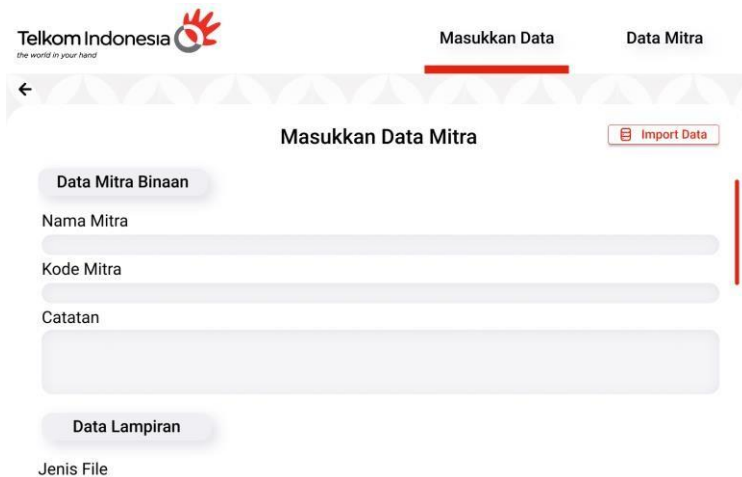


Figure 4.18. Input Data Page.

In this page, user can input data manually / import file data.
Below is the user interface of import data page.

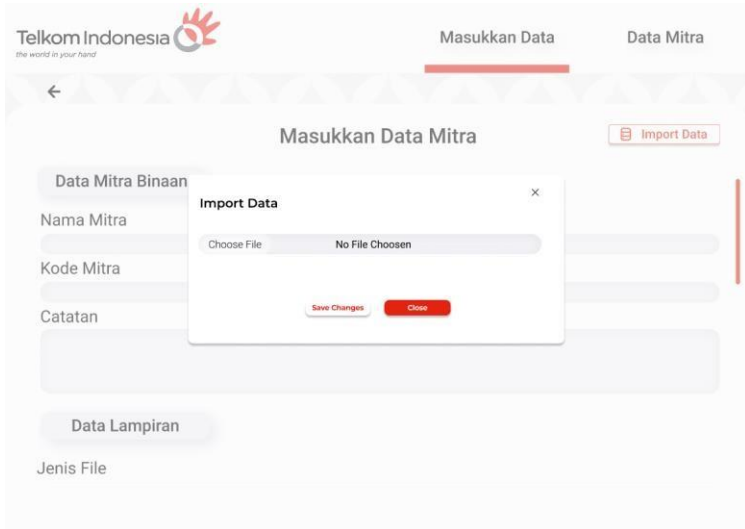


Figure 4.20. Import Data Page.

When user click import data, there will be a pop up to uploading the data file. After successfully uploaded, the data list of the UMK partner data will adjust based on that data file.

Telkom Indonesia *the world in your hand*

Masukkan Data Data Mitra

← [Tambah Mitra](#) [Reset Filter](#) [Import Data](#) [Logout](#)

Cari Mitra Sesuai Kode Mitra

No	Nama Mitra	Kode Mitra	Catatan	Action
1.	UMKM Sejahtera	1-Madura	-	Detail / Download Upload File Buat Catatan Delete
2.	UMKM Berkah	1-Bojonegoro	-	Detail / Download Upload File Buat Catatan Delete
3.	UMKM Tambaksari	1-Gresik	-	Detail / Download Upload File Buat Catatan Delete
4.	UMKM Hijau	1-Lamongan	-	Detail / Download Upload File Buat Catatan Delete
5.	UMKM Hikmah	1-Kediri	-	Detail / Download Buat Catatan

Figure 4.21. Admin Data Mitra Page.

In this page, user can see the list of the UMK partner data. There are several functions, users can search the data easily by searching using name or code. On each UMK data, user can see the details of the data, download the attachments, give a note, upload attachment files, and delete.

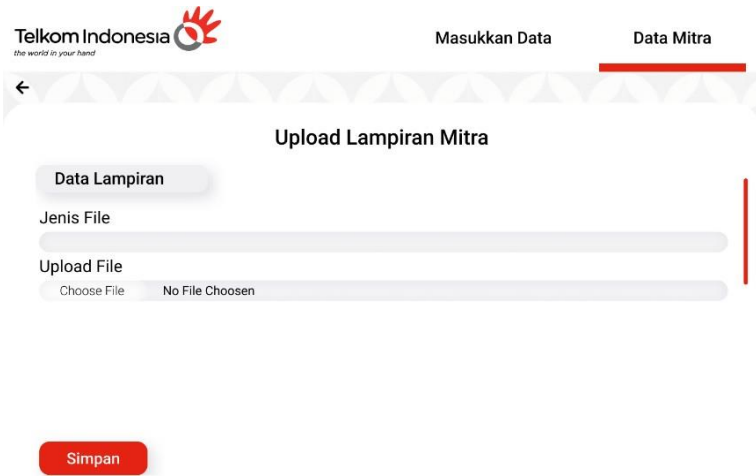


Figure 4.23. Upload File Page

In this page, user can upload any file of the UMK partners data.

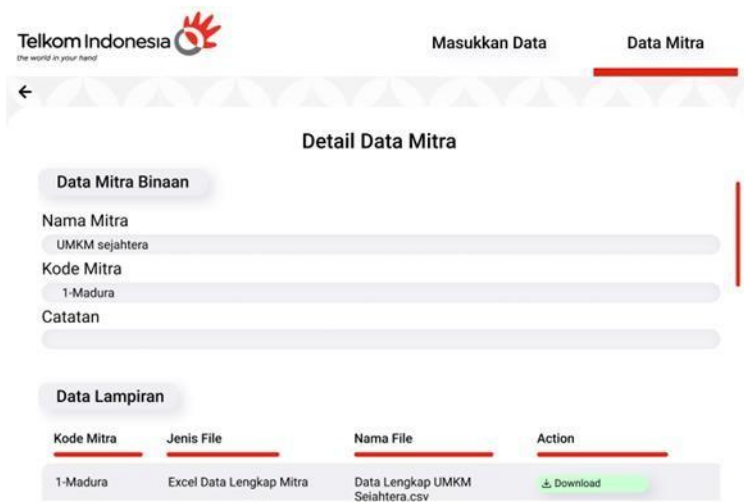


Figure 4.22. Detail / Download Page.

In this page, user can see the detail of the information & file of the UMK partners and also can download the file.

The screenshot shows the 'Tambah Catatan Mitra' page. At the top left is the Telkom Indonesia logo with the tagline 'the world in your hand'. To the right are two navigation tabs: 'Masukkan Data' and 'Data Mitra', with 'Data Mitra' being the active tab. Below the navigation is a back arrow icon. The main heading is 'Tambah Catatan Mitra'. Underneath is a section titled 'Data Mitra Binaan'. The form contains three input fields: 'Nama Mitra' with the value 'UMKM sejahtera', 'Kode Mitra' with the value '1-Madura', and 'Catatan' with the value 'Alamat berubah'. A red 'Simpan' button is located at the bottom of the form.

Figure 4.24. Create Notes Page.

In this page, user can add notes if they want to give additional information to the UMK partners data.

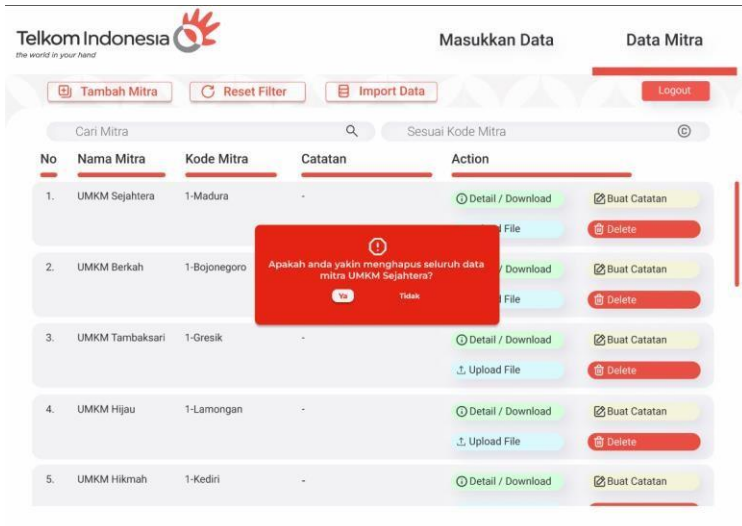


Figure 4.25. Delete Data Confirmation.

To make sure if the user want to delete the chosen data UMK partner data, there will be a pop up of delete data confirmation.

The entire prototype of the website can be checked and run on the link:

Super Admin User: <https://its.id/m/superadminprototype>

Admin User: <https://its.id/m/adminprototype>

4.5. Code Explanation

In this web application, we were assigned to create a simple website that has an authentication feature with 2 types of accounts, namely admin and superadmin, which, as previously mentioned, have different admin and superadmin functions. For this reason, we created the first landing page for this web application that directly leads to the login page.

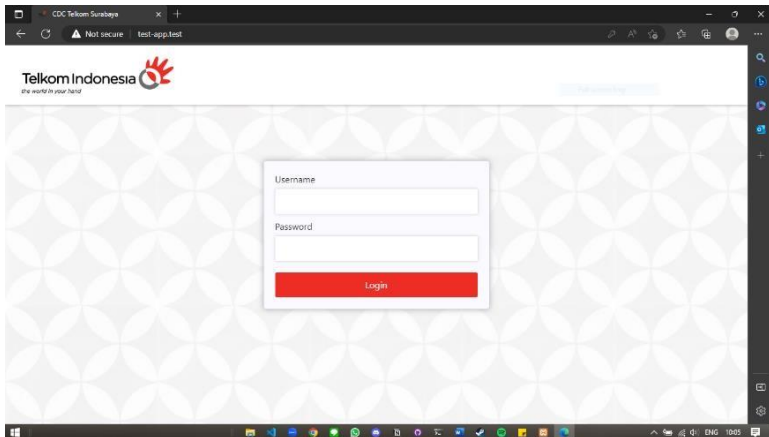


Figure 4.26. Login Page.

In this login page, the user will need to enter the username and password that we have provided so that they can access the features in this web application. We added several features to the login page, such as an alert if a form field has not been filled in, either the username or password has not been filled in.

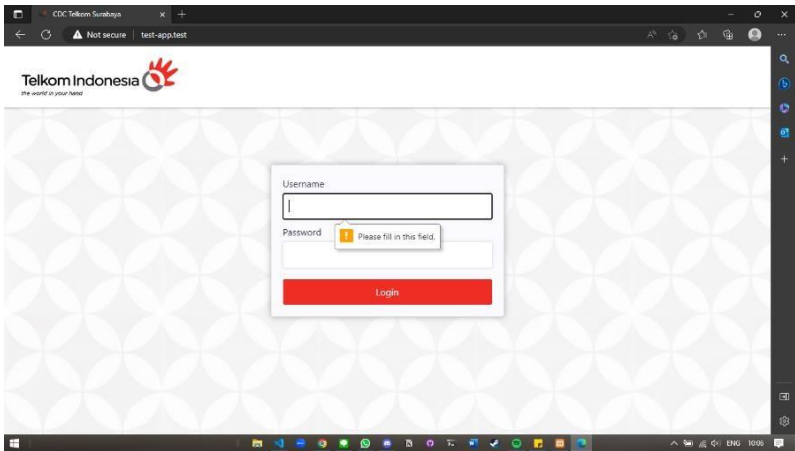


Figure 4.28. Login Page Alert No Fill Username.

Apart from that, as in general, if the user's username and password are entered incorrectly, there will be an alert on the login page.

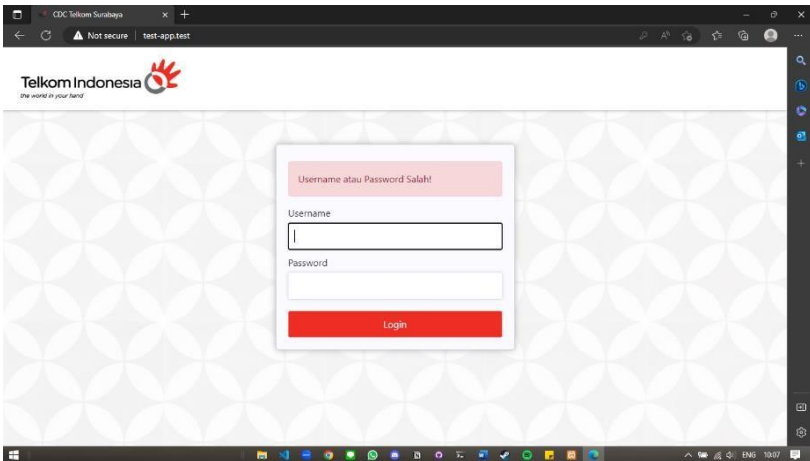


Figure 4.27. Login Page Alert Wrong Username / Password.

If the username and password are correct then our website will direct users according to the type of account used, if admin then it will go to the admin dashboard and if superadmin it will direct it to the superadmin dashboard. To check it yourself, it's in our AdminController as follows.

```
adminController.php

public function login(Request $request){
    $credentials = $request->validate([
        'username' => 'required',
        'password' => 'required'
    ]);

    if(Auth::attempt($credentials)){
        $role = Auth::user()->role;

        if($role == "admin"){
            $request->session()->regenerate();
            return redirect('/daftarMitra');
        }
        elseif($role == "superadmin"){
            $request->session()->regenerate();
            return redirect('/daftarAdmin');
        }
    }

    return redirect()->route("home")->with('failed', 'Username atau Password Salah!');
}
```

Code 4.1 Admincontroller php for Account Authentication.

As shown in the image, our web application will check whether the account entered by the user exists or not. If the account exists, the "role" will be checked whether admin or superadmin and redirected to the page according to the "role". In addition, we also limit page access rights by using the middleware we designed.

```
Route::group(['middleware' => ['check', 'prevent-back-history']], function(){
    Route::get('/', [AdminController::class, 'home'])->name('home');
});

Route::group(['middleware' => ['guest']], function(){
    Route::post('/login',[AdminController::class, 'login'])->name('login');
});

Route::post('/logout',[AdminController::class, 'logout'])->name('logout');

Route::group(['middleware' => ['auth', 'hakakses:admin', 'prevent-back-history']], function(){
    Route::get('/daftarMitra',[MitraController::class, 'index'])->name('daftarMitra');
    Route::get('/tambahMitra',[MitraController::class, 'tambahMitra'])->name('tambahMitra');
    Route::post('/insertData',[MitraController::class, 'insertData'])->name('insertData');
    Route::get('/tampilkanData/{id}',[MitraController::class, 'tampilkanData'])->name('tampilkanData');
    Route::post('/updateData/{id}',[MitraController::class, 'updateData'])->name('updateData');
    Route::get('/deleteData/{kodemitra}',[MitraController::class, 'deleteData'])->name('deleteData');
    Route::get('/deleteFile/{kodemitra}/{namafile}',[MitraController::class, 'deleteFile'])->name('deleteFile');
    Route::get('/detailData/{kodemitra}',[MitraController::class, 'detailData'])->name('detailData');
    Route::get('/uploadPage/{kodemitra}',[MitraController::class, 'uploadPage'])->name('uploadPage');
    Route::post('/upload',[MitraController::class, 'upload'])->name('upload');
    Route::post('/importExcel',[MitraController::class, 'importExcel'])->name('importExcel');
    Route::get('/download', [Download::class, 'download'])->name('download');
});

Route::group(['middleware' => ['auth', 'hakakses:superadmin', 'prevent-back-history']], function(){
    Route::get('/daftarAdmin',[AdminController::class, 'daftarAdmin'])->name('daftarAdmin');
    Route::get('/tambahAdmin',[AdminController::class, 'tambahAdmin'])->name('tambahAdmin');
    Route::post('/insertAdmin',[AdminController::class, 'insertAdmin'])->name('insertAdmin');
    Route::get('/deleteAdmin/{id}',[AdminController::class, 'deleteAdmin'])->name('deleteAdmin');
    Route::post('/updateAdmin/{id}',[AdminController::class, 'updateAdmin'])->name('updateAdmin');
    Route::get('/daftarMitra_Admin',[MitraController::class, 'index_Admin'])->name('daftarMitra_Admin');
});
```

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Code 4.2. Web.Php for Web Application Routing Purposes.

On web.php we use some middleware such as 'guest' which means that the route can only be called by users who have not logged in, 'prevent-back'history' so that after logging in and getting a session the user cannot return to a page like the login page. 'check' to double-check whether the user is logged in or not to prevent returning to the login page and 'auth', 'access rights:admin' and 'access rights:superadmin' to prevent users who have not logged in and are authenticated from accessing multiple routes.

The following shows the admin dashboard display on our web application.

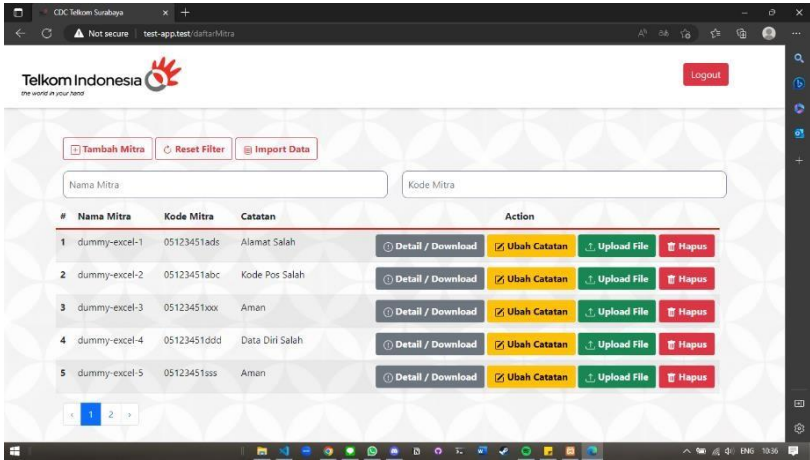


Figure 4.29. Admin Dashboard.

As requested, we made the admin dashboard immediately display a list of partners that other admins had input. For visible data for each partner there is a 'Partner Name', 'Partner Code' and 'Note'. First, the admin can add partners by pressing the 'Add Partner' button.

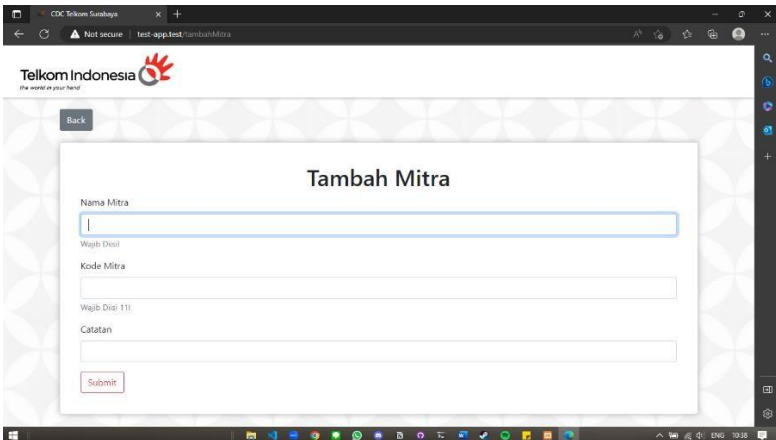


Figure 4.30. Add Mitra Page.

Here, admin can add partners by filling in the form 'Partner Name', 'Partner Code' and 'Note'. Just like on the login page, if there is an empty 'Partner Name' or 'Partner Code' field, an alert will appear to fill in the form. In addition, we also added a feature in the 'Partner Code' section which requires the admin to input 11 alphanumerics, not less or more according to the instructions given.

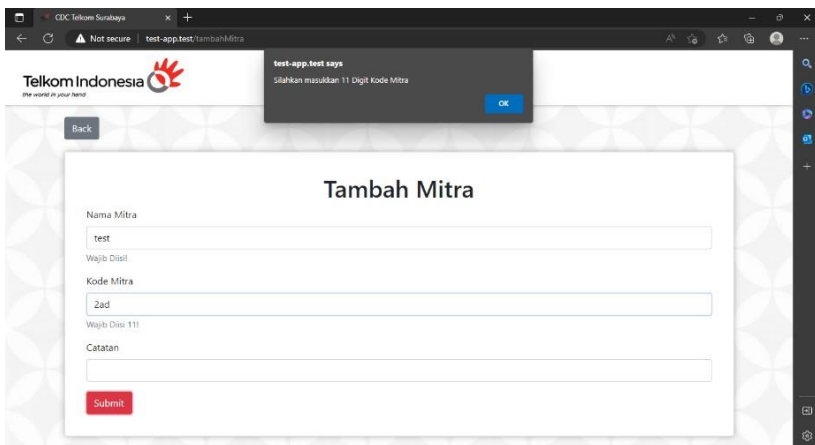


Figure 4.31. Add Partner Alert If Partner Code is Less than 11.

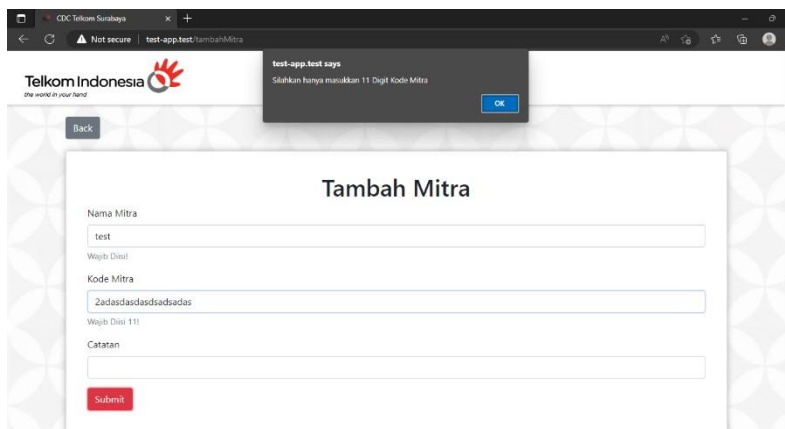


Figure 4.32. Add Partner Alert if Partner Code is More Than 11.

```
const form = document.getElementById("form");
const inputField = document.getElementById("kodeForm");

form.addEventListener("submit", (event) => {
  if (inputField.value.replace(/[^a-zA-Z0-9]/g, '').length < 11) {
    event.preventDefault();
    alert("Silahkan masukkan 11 Digit Kode Mitra");
  } else if (inputField.value.replace(/[^a-zA-Z0-9]/g, '').length > 11){
    event.preventDefault();
    alert("Silahkan hanya masukkan 11 Digit Kode Mitra");
  }
});
```

Code 4.3. Function for Input Only 11 Digits.

We've also added an alert feature if the admin has successfully added a partner.

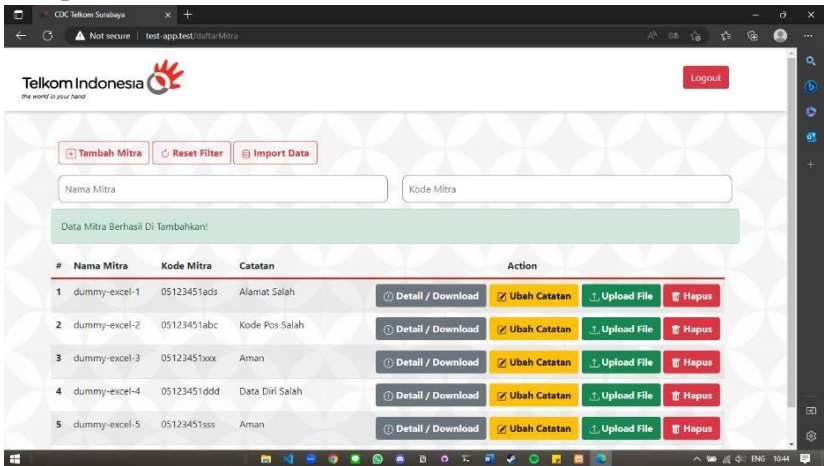


Figure 4.33. Add Partner Success.

The next feature according to the instructions is that the admin can search both by name and partner code and doesn't need to be complete, for example, we want to find a partner name that has the letter 'a' or

partners with code '2'. We also provide an alert feature if the partner data cannot be found.

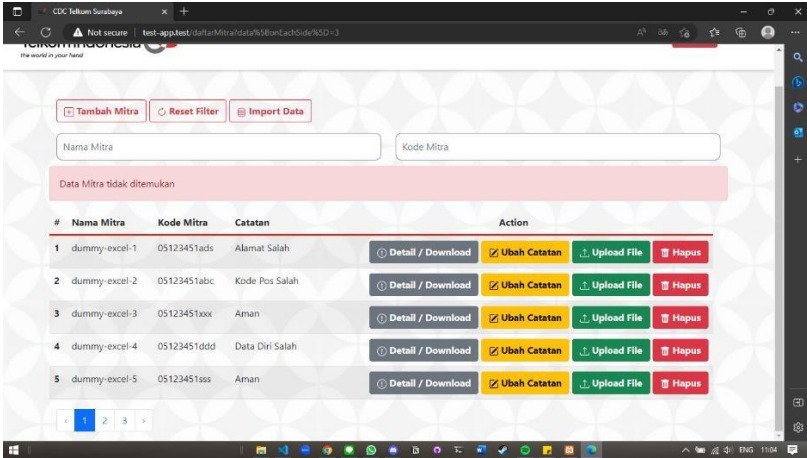


Figure 4.34. Partner Data Not Found.

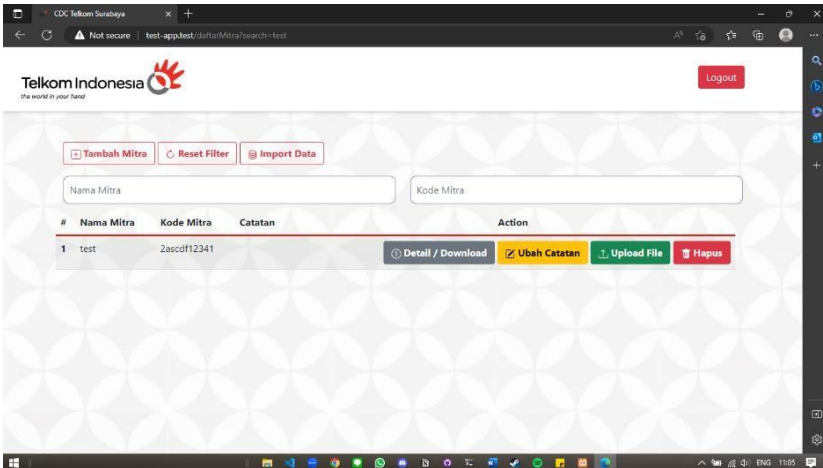


Figure 4.35. Partner Data Filter Found.

There is a slight error in this section. We managed to give an alert if partner data is found but the table doesn't change to display the search results. So we made a solution if the data is found then there is no alert if the data is found successfully.

In addition, the admin can also reset the filter by pressing the 'Reset Filter' button. The next feature is that the admin can input data at the same time via the csv file by filling in the first column 'partner name', the second column 'partner code' and the third column 'note' and we managed to make if the 'partner code' is less or more than 11 alphanumeric then the input data will fail.

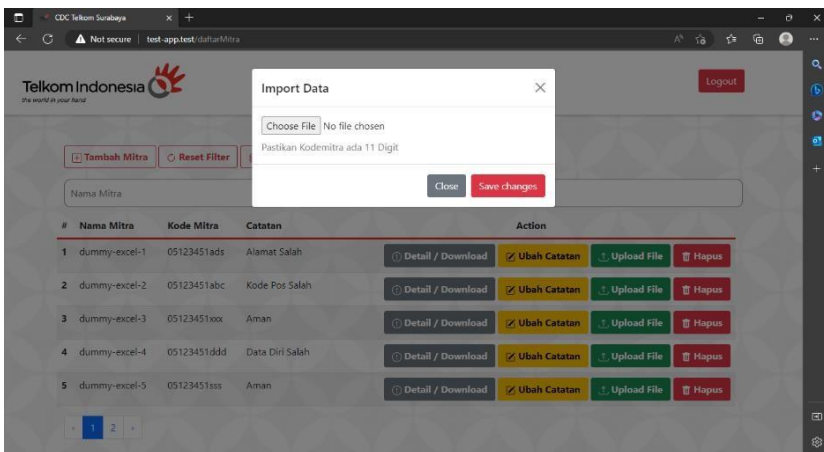


Figure 4.36. Import Data.

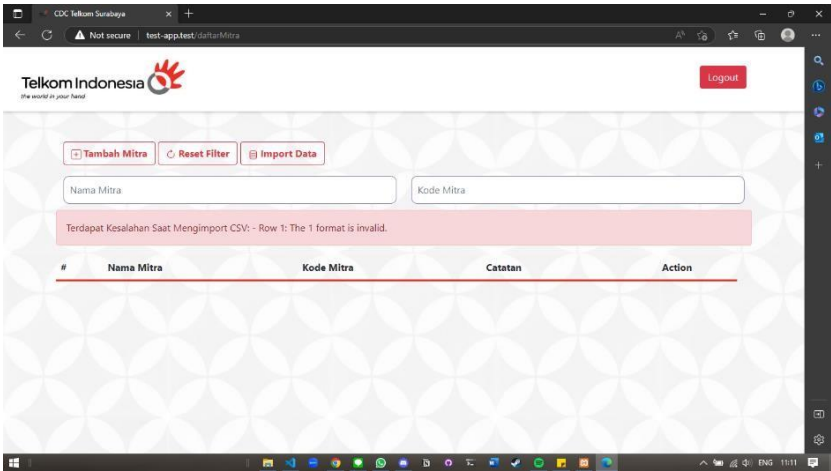


Figure 4.37. Data Import Failed.

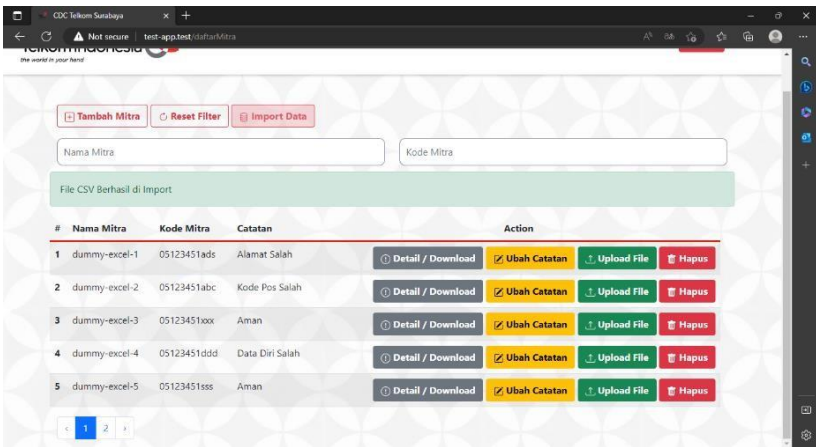


Figure 4.38. Data Import Success.

```
public function rules(): array
{
    return [
        '*.1' => ['required', 'regex:/^[a-zA-Z0-9]{11}$/'],
        // Check if it's 11 digits
    ];
}

public function model(array $row)
{
    return new Mitra([
        'namamitra' => $row[0],
        'kodemitra' => $row[1],
        'catatan' => @$row[2],
    ]);
}
```

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Code 4.4. Mitraimport.Php for Checking Partner Code from CSV.

Another feature upon request is that the admin can make changes to the note column section.

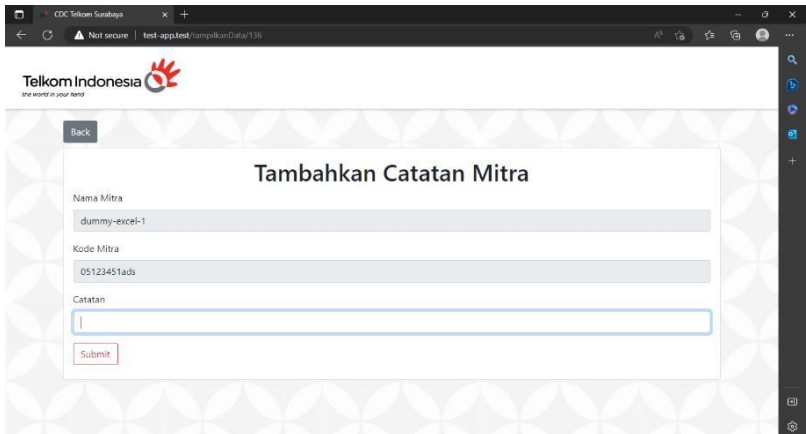


Figure 4.39. Modify Partner Records.

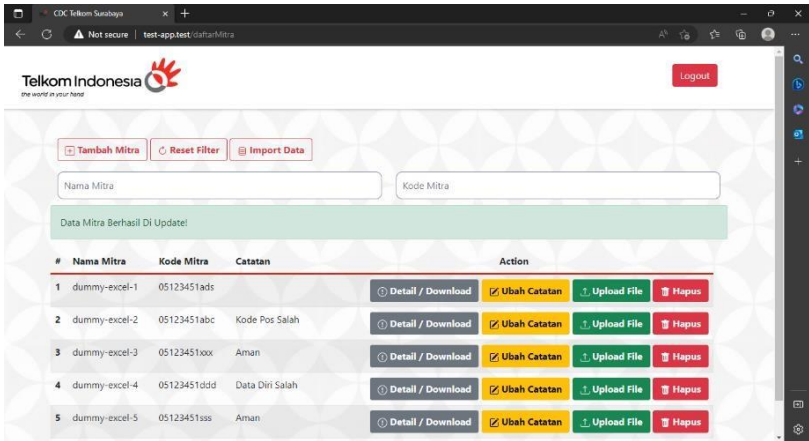


Figure 4.40. Alert when Partner Records are Successfully Updated.

The next feature upon request is that the admin can upload files to each of his partners by pressing the 'Upload File' button and only png/jpg/jpeg/pdf files are accepted.

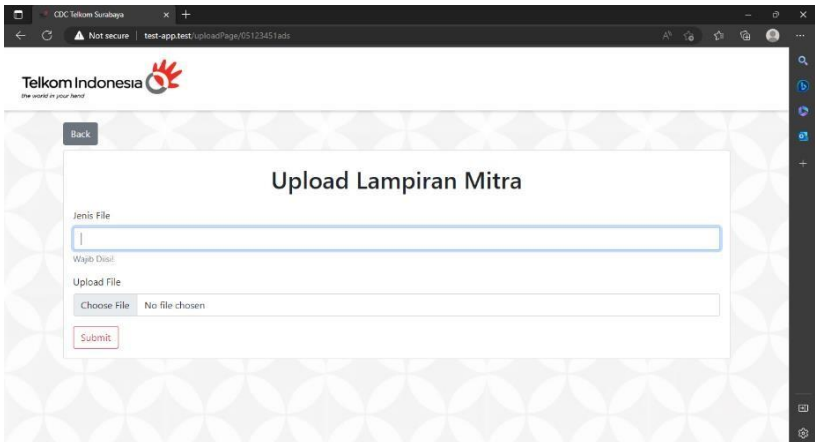


Figure 4.41. Upload Partners File Attachment.

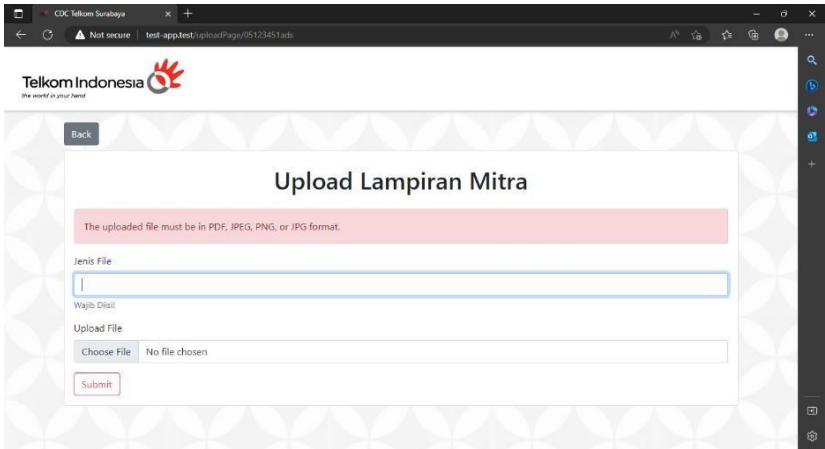


Figure 4.42. Alert Wrong File Type.

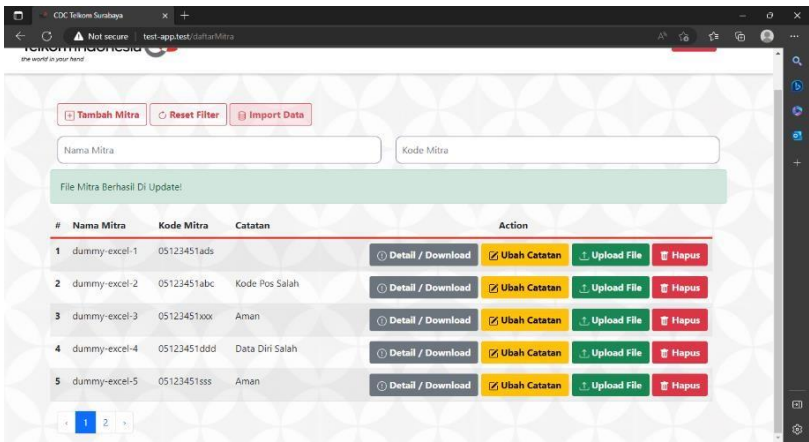


Figure 4.43. File Attachment Successfully Uploaded.

The next feature is that the admin can view details by pressing the 'Details / Download' button and also download files from each partner or delete them.

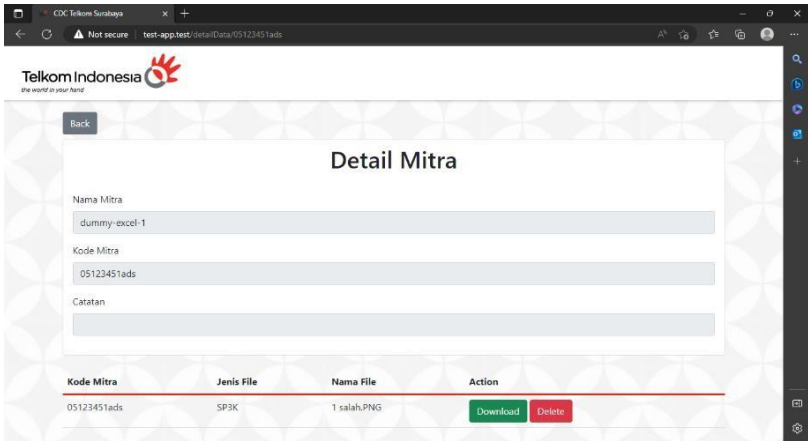


Figure 4.44. Partner Detail or Download File.

The last feature that can be done by the admin is to delete partner data, if the partner data is deleted, the files that have been uploaded to each partner will also be deleted from the system. We also added a sweet alert to confirm admin action to delete partner data.

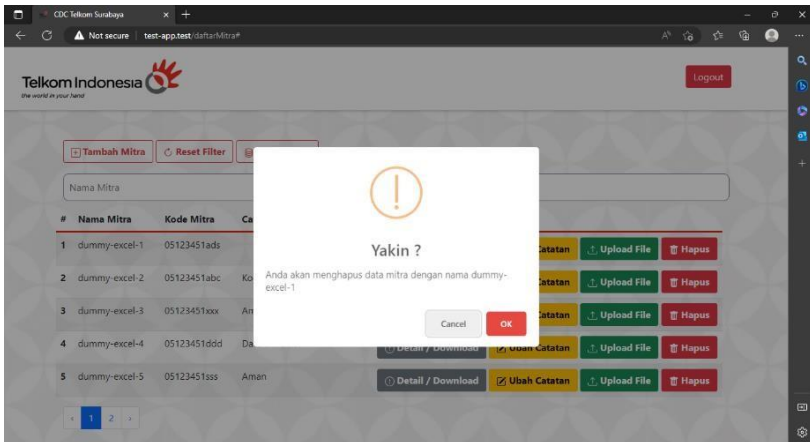


Figure 4.45. Delete Mitra Alert.

Next, we will explain about the features of Super Admin. as previously explained Super Admin can only view partner data and add or delete admin data.

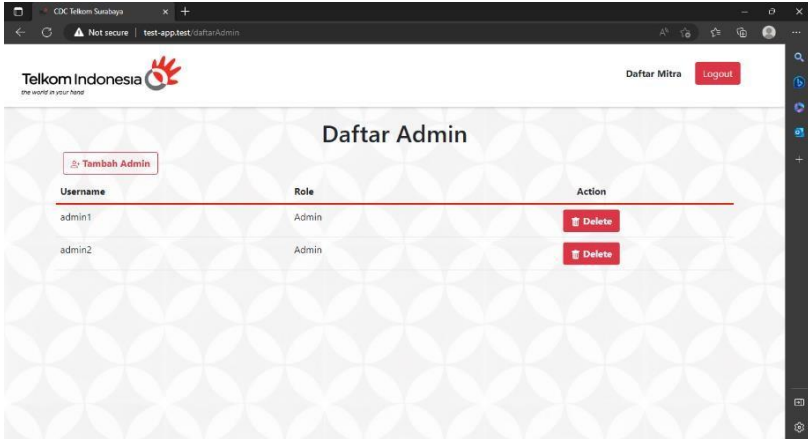


Figure 4.476. Super Admin Dashboard.

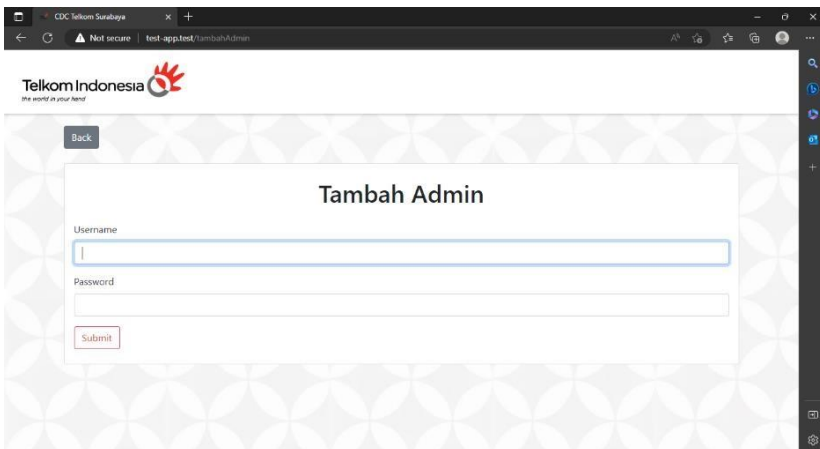


Figure 4.467. Add New Admin.

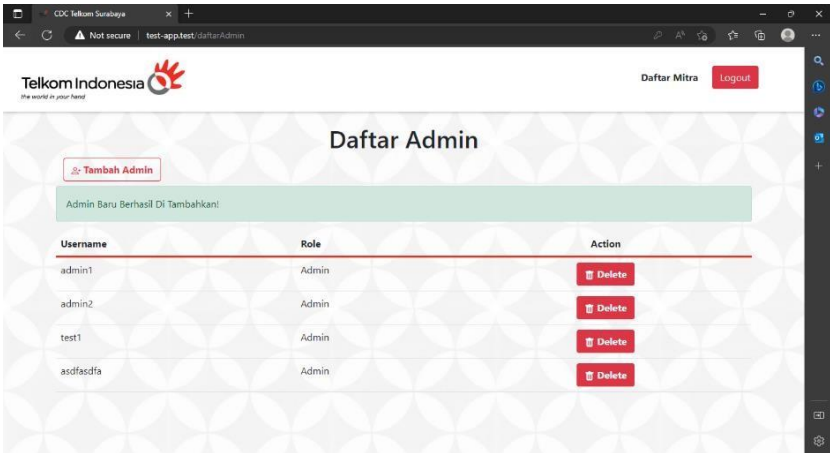


Figure 4.48. New Admin Successfully Added.

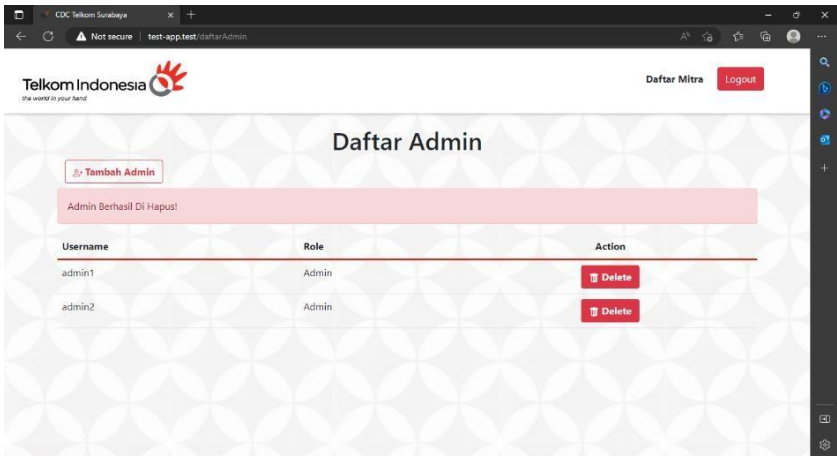


Figure 4.49. Delete Admin.

To increase security when Super Admin manages to add an admin, the password will be hashed using `bcrypt()` and placed in the database.

```
public function insertAdmin(Request $request) {
    $pw = bcrypt($request->password);
    $data = Admin::create([
        'username' => $request->username,
        'password' => $pw
    ]);

    return redirect()->route("daftarAdmin")->with('success', 'Admin Baru Berhasil Di Tambahkan!');
}
```

Code 4.5. Function to Create New Admin.

Super Admin can also see the same partner data as seen by the admin by pressing the 'Partner List' button, it's just that super admin can't download files owned by partners, and delete or replace partner records. Superadmin who can search partner data.

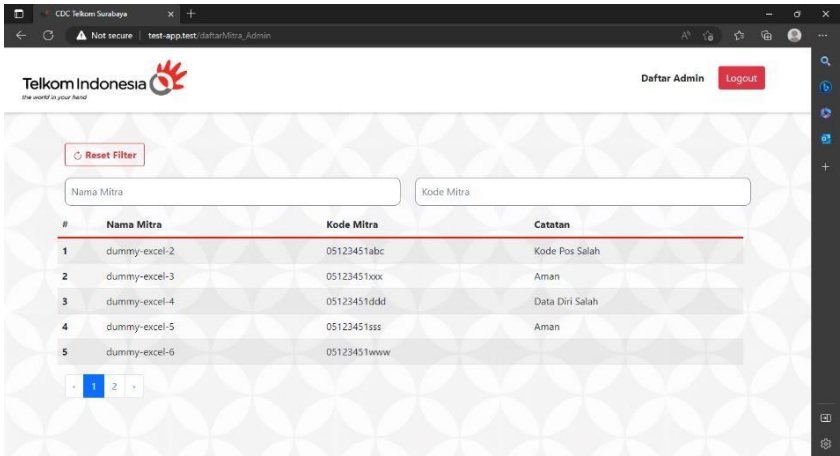


Figure 4.50. Super Admin view Mitra Data.

CHAPTER V

TESTING AND EVALUATION

This chapter describes the testing and evaluation stages carried out on the Website that has been created.

5.1. Testing Purpose

We conducted a test on the creation of a website to store file and partner's data at Telekomunikasi to ensure that real-time data could be displayed on the website.

5.2. Testing Criteria

The assessment of the Simple Web test is obtained by paying attention to the following :

- A. Architectural ability to login into the website based on account.
- B. Architectural ability to store files.
- C. Architectural ability to add delete record of data

5.3. Testing Scenario

The test scenario is done by performing the role of the admin and superadmin who will run the features.

The steps for each functionality for admin need are as follows:

1. Admin can login and redirected to its dashboard
2. Admin can see all the partner's data
3. Admin can change partner's "catatan" data
4. Admin can use the filter various partner's data based on name and partner's special code
5. Admin can add new record of partner's data
6. Admin can upload and download partner's data

7. Admin can delete specific partner's uploaded file
8. Admin can add multiple record of data using CSV file
9. Admin can't access login page and superadmin page unless he/she logout or the session is expired

The steps for each functionality for superadmin need are as follows:

1. Superadmin can login and redirected to its dashboard
2. Superadmin can only add new admin account and can be used by admin
3. Superadmin can see all the partner's data except the uploaded file
4. Superadmin can filter various partner's data based on name and partner's special code
5. Superadmin can't access login page and admin page unless he/she logout or the session is expired

5.4. Testing Evaluation

The test results were carried out on observations regarding the behavior of the store file and data application in the case of the trial scenario. Table 6.1 below describes the test results of applications that have been created.

Test Criteria	Test Results
Website allows admin and superadmin to login based on their account	Achieved
Website can store file	Achieved

attachments	
Website can add and delete record of data	Achieved
Website can import partners data & automatically sorted	Achieved

Table 5.1. Test Evaluation Table.

CHAPTER VI

CONCLUSION AND RECOMMENDATION

6.1. Conclusion

The conclusions obtained after developing Website on practical work activities at PT Telekomunikasi Indonesia Tbk are as follows:

- To create a design system that is easy to understand by the user/client, it can simply be done by using StarUML & Figma applications.
- To create a new system that is really needed by PT Telekomunikasi Indonesia Tbk especially SS HC & Finance Unit, Witel Surabaya Utara, it can be done by using Laravel & phpMyAdmin implementation.

6.2. Recommendation

Recommendations for making a website are as follows:

- Looking for a solution so that users can easily understand the design, easy to access and flexible to use the website.

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AUTHOR BIOGRAPHY I

Name : Rafi Akbar Rafsanjani Place,
Date of Birth : Brebes, 20th April 2001 Gender : Male
Religious : Islam
Status : Not Married
Address : Cluster Puri Kintamani No.5,
Pengasinan, Rawalumbu, Kota
Bekasi
Telephone : 081213112001
Email : rafiakbarrafsanjani51@gmail.com

EDUCATION

2019 – now : S1 Teknik Informatika ITS
2016 – 2019 : SMAN 1 Kota Bekasi
2013 – 2016 : SMPN 1 Kota Bekasi
2007 – 2013 : SD Islam Al-Huda

COMPETENCE

- *Web Programming* (HTML, PHP, CSS, Javascript)
- *Programming* (C, C++, Python)
- *Database Management* (MySQL)
- *Software* Perkantoran (Microsoft Word, Excel, PowerPoint)

- Bahasa (Indonesia, Inggris)

ACADEMIC

University : Departemen Informatika – Fakultas Teknologi
Elektro dan Informatika Cerdas, Institut Teknologi
Sepuluh Nopember Surabaya

Generation : 2019

Semester : 8

GPA : 3.46

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AUTHOR BIOGRAPHY II

Name : Muh Hilmy Thoriq YR.
Place, Date of Birth : Makassar, 30th
December 2001
Gender : Male
Religious : Islam
Status : Not Married
Address : Jl. HM. Rifaddin Perum GTS Blok
BI No.06, Harapan Baru, Loa Janan
Iilir, Kalimantan Timur
Telephone : 082158546791
Email : hilmythoriq09@gmail.com

EDUCATION

2019 – now : S1 Teknik Informatika ITS
2016 – 2019 : SMAN 10 Samarinda
2013 – 2016 : MTSN Model Samarinda
2007 – 2013 : SD Islam Al-Azhar Samarinda

COMPETENCE

- *Web Programming* (HTML, PHP, CSS, Javascript)
- *Programming* (C, C++, Python)
- *Database Management* (MySQL)

- *Software* Perkantoran (Microsoft Word, Excel, PowerPoint)
- Bahasa (Indonesia, Inggris)

ACADEMIC

University : Departemen Informatika – Fakultas Teknologi
Elektro dan Informatika Cerdas, Institut Teknologi
Sepuluh Nopember Surabaya

Generation : 2019

Semester : 8

GPA : 3.53