

# FACULTY OF COMPUTING UNIVERSITI TEKNOLOGI MALAYSIA

# System Development Technology (SECP3723) SEMESTER 1 2023/2024 SECTION 01

# Final WBL Project:

<AK Maju Business Management System>

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# 1. Declaration Page

There are six modules that were developed by our group, which are:

- 1. Authentication module
- 2. Dashboard module
- 3. Customer management module
- 4. Material management module
- 5. Order management module
- 6. Documentation module

#### We hereby declare that:

The report of Final WBL Project for AK Maju Business Management System is completely original done by our groupmates unless some source material is explicitly acknowledged and has been exchanged and checked by all groupmates to make sure it is original content that was written by our team.

Name	Task	Signature
GOH JIALE (LEADER)	- Customer Management Module - Order Management Module	Gry .
ONG YI YAN	<ul><li>Authentication Module</li><li>Material Management Module</li></ul>	¥2.
TANG YAN QING	<ul><li>Dashboard Module</li><li>Documentation Module</li></ul>	fore

#### 2. Project Report

#### 2.1 Company/Client Background



Figure 1.1 Logo of AK Maju Resources Sendirian Berhad.

AK Maju Resources Sendirian Berhad is a private limited company founded by CEO Noor Azam in 2008 and incorporated in 2014 in Segamat, Johor. The logo for AK Maju Resources Sendirian Berhad is shown in Figure 3.1.

AK Maju provides construction and advertising services. Their construction division sells a wide range of building materials and supplies to clients undertaking construction and renovation projects.

Their advertising division provides graphic design services for print advertisements. They work closely with clients to design appealing and effective print ads based on their target audience and campaign goals.

AK Maju has 7 staff members organised in a simple hierarchical structure (Figure 3.2). There is 1 Manager who oversees the entire organisation. Below the Manager is the Admin/Account Officer who handles finances and operations. The Customer Service Representative interacts with clients and customers. The design team consists of 1 Senior Designer, 1 Senior Designer 2, and 1 Junior Designer. They are responsible for creating design solutions for clients. Finally, there is 1 Marketing Specialist who handles promotional activities and marketing campaigns for AK Maju. This simple organisational structure allows

AK Maju to operate efficiently while providing high quality service to its clients. The reporting relationships are clear, with most staff reporting directly to the Manager.



Figure 1.2 Organisational chart of AK Maju Resources Sdn Bhd.

#### 2.2 Problem Background

At present, AK Maju Resources Sdn Bhd utilises a manual system for managing customer orders and inventory in the construction and advertising sector. It has several severe shortcomings as stated below.

#### 1. Manual Cost and Sales Price Calculation

The staff faced problems when calculating cost and sales prices for advertisement and construction materials. This manual process requires complex calculation since the materials sold involve varying sizes, thicknesses and other characteristics, from small to large components. Each calculation is done item by item using Excel sheets and notebooks, which not only makes the procedure laborious but also prone to mistakes.

#### 2. Time-Intensive Documents Generation

Documents needed by AK Maju include quotations, invoices and delivery orders. Quotation generation typically takes one to two weeks to complete. The need for manual calculations each time a customer requests a quote results in considerable time and effort investments. Besides, the quotations, invoices and delivery orders need to be edited manually, further increasing the time required.

#### 3. Inefficient Inventory Management

Manual monitoring by staff is necessary because there is no automatic method for stock notifications and inventory tracking. It makes it challenging to identify and resolve low-stock issues quickly. In addition, the involvement of staff in manually managing inventory takes their time and energy away from important tasks, which reduces operational efficiency as a whole.

#### 4. Inefficient Record-Keeping

Excel or other methods used to record customers' information may get unmanageable when handling a large amount of data, leading to performance issues and slow response times. Typographical mistakes made during data entry might result in inaccurate client records. Data loss might occur if not handled carefully.

#### 2.3 Proposed Solution

Our proposed system is to develop a web-based management system that can be used for admin and staff. This web-based system is specifically tailored for AK Maju with the aim of converting the existing manual procedures into a computerised system in advertisement and construction sectors. There are 6 modules in this system, which are authentication, dashboard, customer management, material management, order and documentation.

From the staff's perspective, they can log in and reset the password for their account. Since there is no register function, staff are not allowed to register new accounts and will be given an account by the admin. Upon login, the staff can view the current order status, a list of adjustment items in the past 30 days and low-stock items in the dashboard. Additionally, staff can view the customer information on the customer page and search for the customer using their name or ID. Furthermore, staff can view and manage advertisement materials and advertisement orders. It means that staff can add, edit, and delete advertisement materials and orders. These functions are similar to those for managing construction materials and construction orders. Nevertheless, advertisements have different functions compared to construction since advertisements consist of accurate inventory and construction is designed based on JKR standards. Thus, advertisements consist of additional functions such as payment methods, managing payment references, extra documentation (invoice and delivery order) and more statuses such as invoice status, delivery order status and payment status. Besides that, the construction consists of features such as managing electric and civil order materials and managing order rate salary. Lastly, staff can generate documentation such as quotations, invoices and delivery orders and check the invoice. Staff can also manage signatures for use in e-documentation.

From the admin perspective, the AK Maju Business Management System gives administrators access to additional features that help them monitor and control the construction and advertising businesses. Admins can control system access by creating, editing and deleting user accounts. In the admin dashboard, they can view the sales statistics, such as total orders and total gross profit. They can also download or send the transaction listing report, stock balance report and profit and loss report. Unlike staff, admins can export customer information for more extensive reporting and analytical needs. In the material management area, the admin can access the cost information of each advertisement material.

Admins can approve quotations, invoices, and delivery orders within the Documentation Module, giving important documents additional validation.

In conclusion, the AK Maju Business Management System is a complete solution that streamlines and improves the management of AK Maju Resources Sdn. Bhd.'s construction and advertisement sectors. The system ensures effective daily operations and strategic oversight with features specifically designed for staff and admin users. Staff have access to tools that make order management, customer contacts and document preparation easier. At the same time, the admin may take advantage of more advanced functions that include financial reporting and document verification. Offering an integrated structure for efficient operation, the system is an essential tool in helping AK Maju Resources Sdn. Bhd. to enhance its business processes.

#### 2.4 Development Approach

The development of AK Maju Business Management System has applied the system development life cycle (SDLC). There are six phases in SDLC, which start from Planning, followed by Analysis, Design, Implementation, Testing and Maintenance.

First, in the Planning phase, an interview is conducted with the stakeholders from AK Maju on Industry Day 1. Before the interview, the interview questions are first decided, including open-ended questions and closed-ended questions. The interview involved understanding the current system flow and gathering requirements, with additional documents such as a Quotation example obtained from stakeholders. After interviewing, the knowledge obtained is summarised to make a flow chart of the existing system. This phase also involved defining objectives, scopes, and resources and creating essential project management tools like Work Breakdown Structure (WBS), Gantt chart and Pert chart.

In the Analysis phase, a To-Be system flow chart was crafted. Then, 16 use cases are identified, and a use case diagram is produced after a few rounds of meetings between team members. The use cases are then categorised into modules. There are six modules, which are authentication, dashboard, customer management, materials management, order and documentation. Each team member was then assigned two modules. The use case description, activity diagram and sequence diagram are created for each module accordingly.

In the design phase, the package diagram, architecture diagram, component model, class diagram database design and data dictionary of each module will be developed. The package diagram showed the high-level organisation of system components, while the architecture diagrams visually represented the system's structural framework. Besides, the class diagrams showed the relationships and interactions between classes, whereas component models were used to outline the individual components of each module. The database underwent conceptual and logical design, employing normalisation techniques. The transaction requirements, including data entry, update or delete and query, are also designed for each module. The function for each module is also developed to support the implementation phase.

All the design components are turned into a working system in the implementation phase. The user interface, design elements, server-side logic and database functionality for each module are first implemented on the local host. Server-side logic facilitates seamless communication between the user interface and the database functionalities. The database was created to ensure proper data storage, retrieval and management. During the implementation, any errors identified were also solved, and any feedback from lecturers was improved. Lastly, when the system is done, all modules are combined and uploaded to the web host. The user manual is created to explain the steps of each function.

The system underwent a thorough evaluation in the testing phase to ensure its reliability and performance. Individual modules underwent unit testing to ensure that every part functioned as intended. For example, specific functionalities, such as generating quotations in the documentation module, were examined to ensure it can function accurately. Next came integration testing, where the modules interacted with one another to evaluate the performance of the interaction. Subsequently, system testing was carried out to assess the whole system's performance. Finally, user acceptance testing is conducted with the stakeholders from AK Maju to confirm that the system meets their requirements and expectations. The interface and flow of each function are presented to gain feedback from the stakeholders.

In the last phase, Maintenance, the system is continuously monitored to fix any potential issues. A systematic technique is used to identify and address problems quickly. This process includes debugging code, examining error logs and conducting extensive testing to confirm the efficacy of bug solutions.

#### 2.5 System Design (ERD, Use Case and Sequence Diagram)

#### 2.5.1 Use Case Diagram

# AK Maju Business Management System

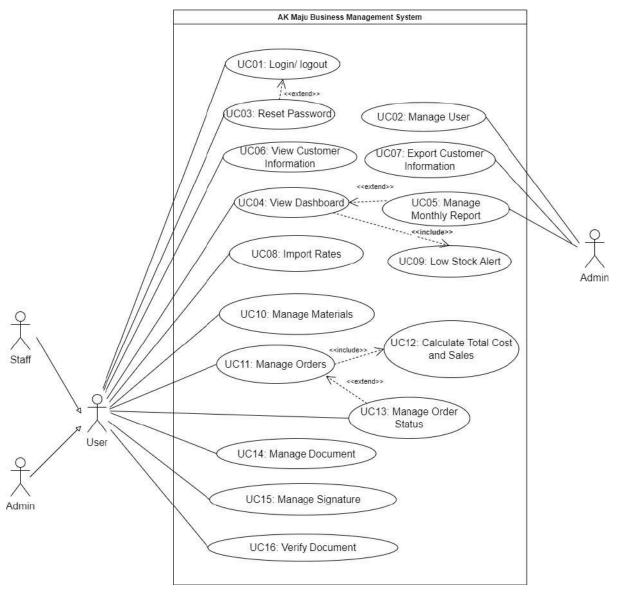


Figure 2.5.1.1: Use Case Diagram of AK Maju Business Management System

#### 2.5.2 Global Conceptual ERD

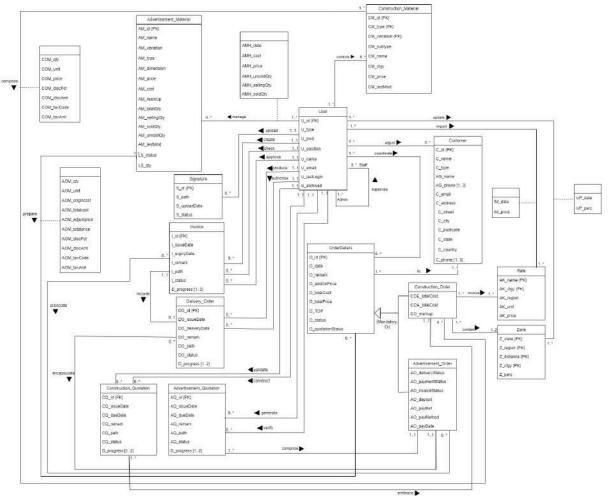


Figure 2.5.2.1: Global Conceptual ERD of AK Maju Business Management System

Here is the high quality image of design: Global Conceptual Design

#### 2.5.3 Logical ERD

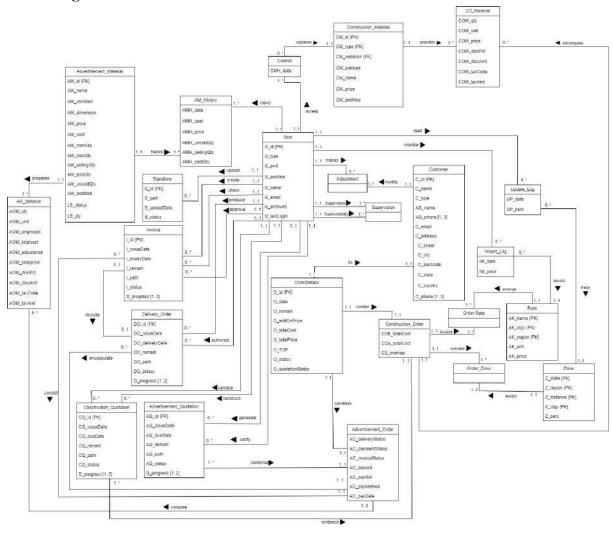


Figure 2.5.3.1: Logical ERD of AK Maju Business Management System

Here is the high quality image of design: Logical ERD

#### 2.5.4 Module 1: Authentication Module

#### 2.5.4.1 Use Case Diagram

# AK Maju Business Management System

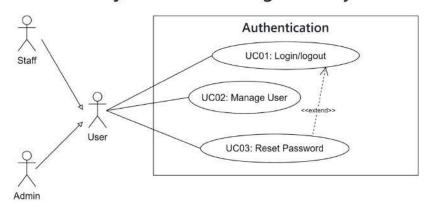


Figure 2.5.4.1.1: Use Case Diagram for Authentication Module

#### 2.5.4.2 Local Conceptual ERD

Module 1: Authentication Module

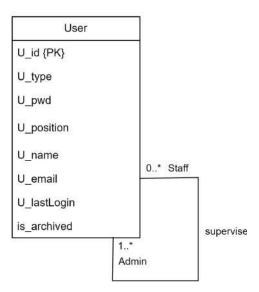


Figure 2.5.4.2.1: Local Conceptual ERD for Authentication Module

# 2.5.4.3 Sequence Diagram

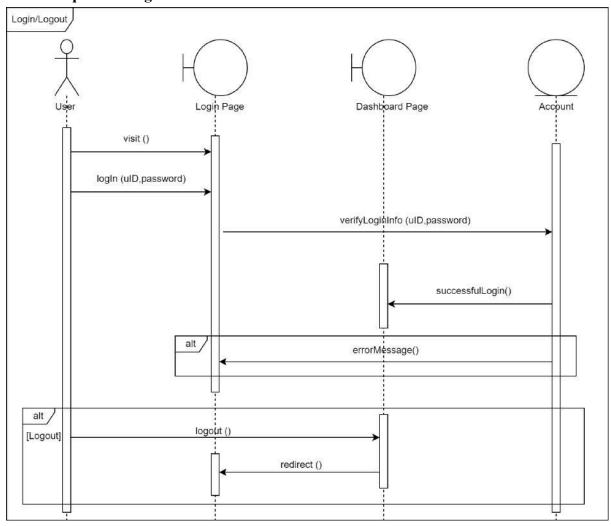


Figure 2.5.4.3.1: Sequence Diagram for <Login/Logout>

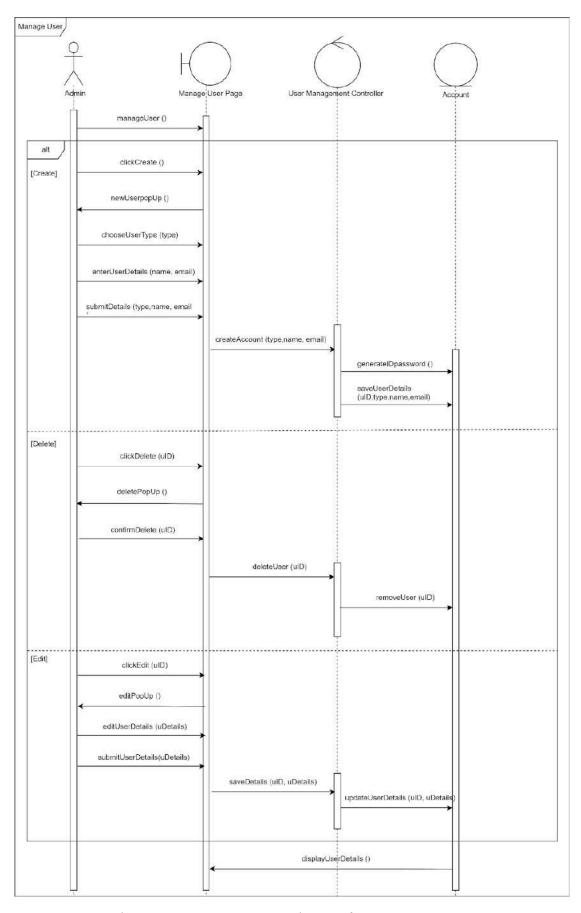


Figure 2.5.4.3.2: Sequence Diagram for <Manage User>

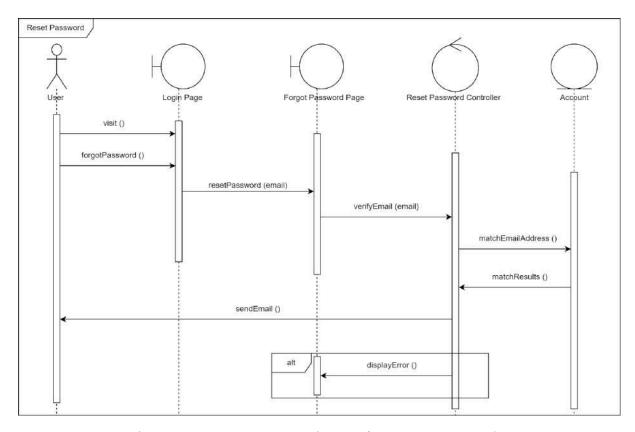


Figure 2.5.4.3.3: Sequence Diagram for <Reset Password>

#### 2.5.5 Module 2: Dashboard Module

#### 2.5.5.1 Use Case Diagram

# AK Maju Business Management System

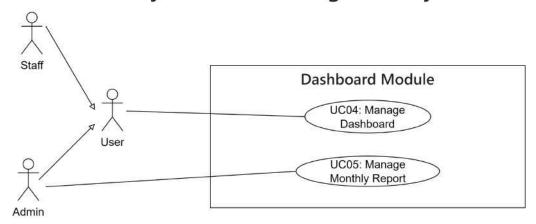


Figure 2.5.5.1.1: Use Case Diagram for Dashboard Module

#### 2.5.5.2 Local Conceptual ERD

Module 2: Dashboard Module

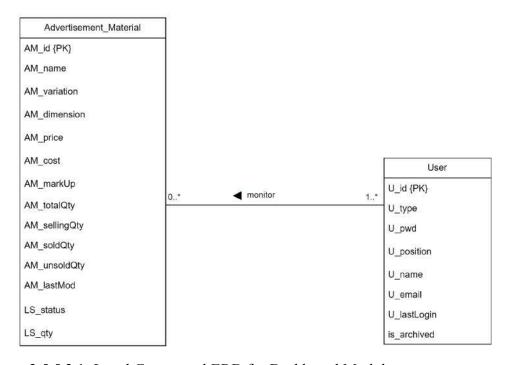


Figure 2.5.5.2.1: Local Conceptual ERD for Dashboard Module

#### 2.5.5.3 Sequence Diagram

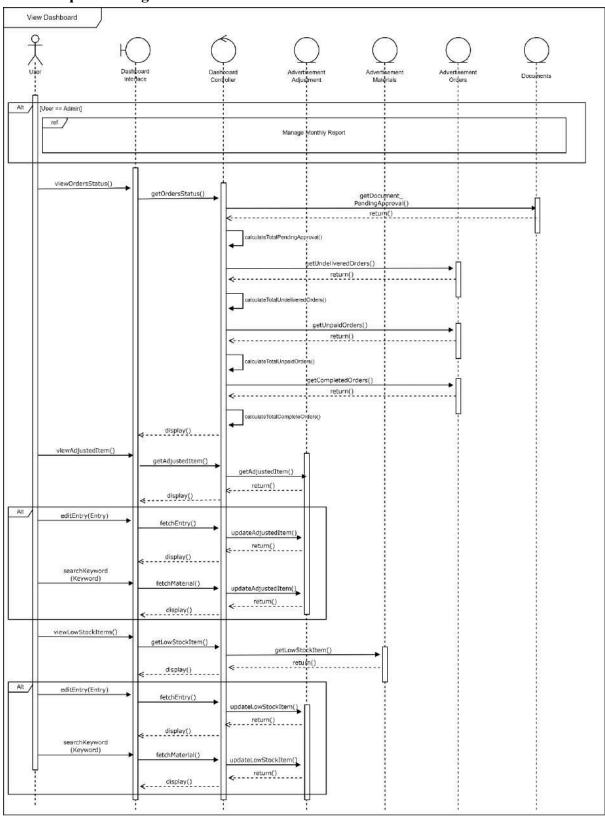


Figure 2.5.5.3.1: Sequence Diagram for <View Dashboard>

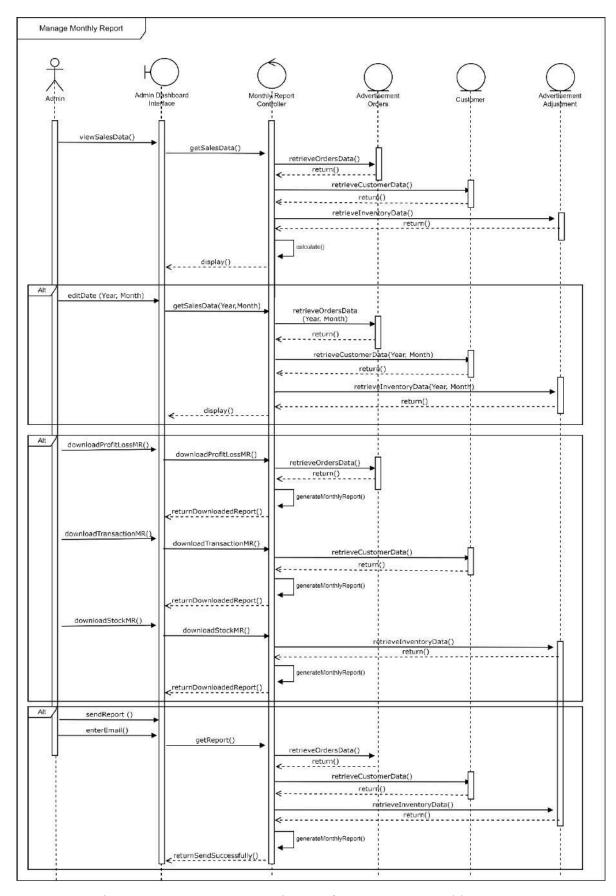


Figure 2.5.5.3.2: Sequence Diagram for <Manage Monthly Report>

#### 2.5.6 Module 3: Customer Management Module

#### 2.5.6.1 Use Case Diagram

# Akmaju Business Management System

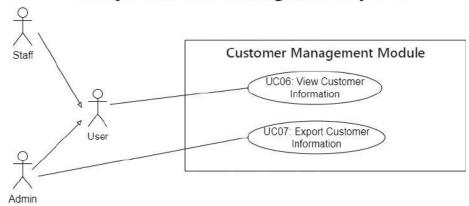


Figure 2.5.6.1.1: Use Case Diagram for Customer Management Module

#### 2.5.6.2 Local Conceptual ERD

Module 3: Customer Management Module

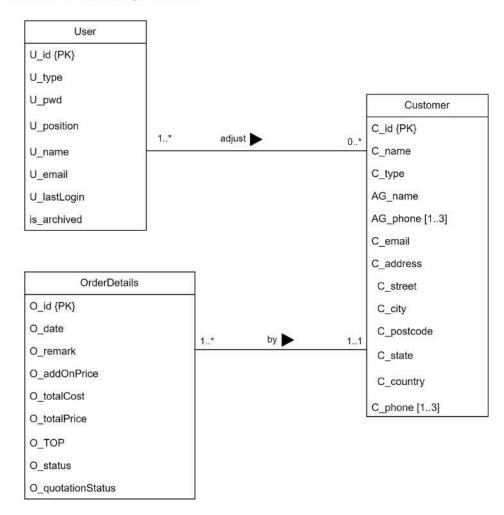


Figure 2.5.6.2.1: Local Conceptual ERD for Customer Management Module

#### 2.5.6.3 Sequence Diagram

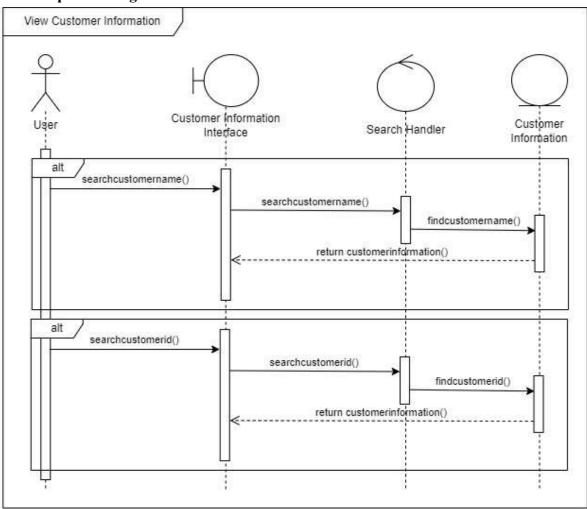


Figure 2.5.6.3.1: Sequence Diagram for <View Customer Information>

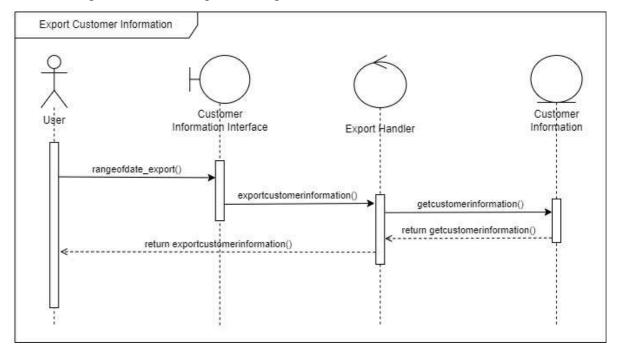


Figure 2.5.6.3.2: Sequence Diagram for <Export Customer Information>

#### 2.5.7 Module 4: Material Management Module

#### 2.5.7.1 Use Case Diagram

# AK Maju Business Management System

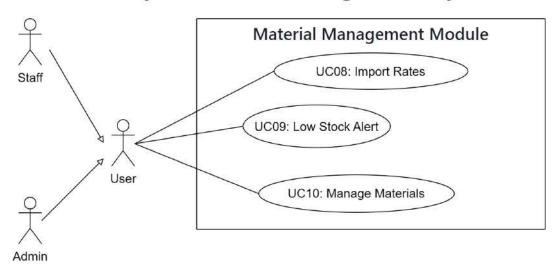


Figure 2.5.7.1.1: Use Case Diagram for Material Management Module

#### 2.5.7.2 Local Conceptual ERD

Module 4: Material Management Module

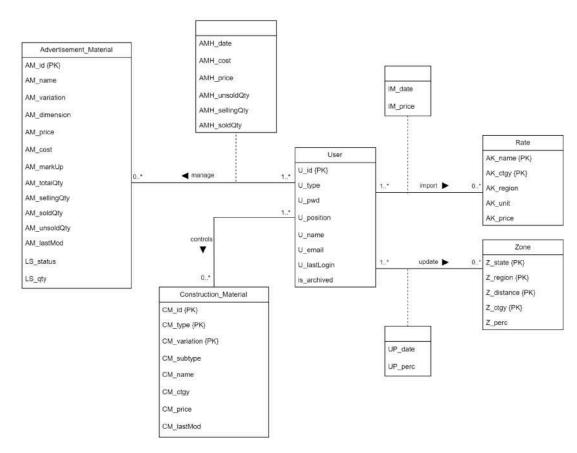


Figure 2.5.7.2.1: Local Conceptual ERD for Material Management Module

#### 2.5.7.3 Sequence Diagram

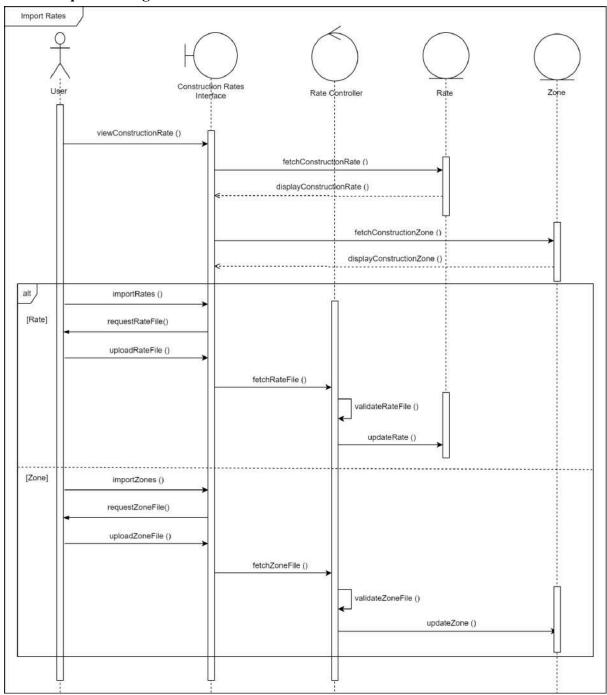


Figure 2.5.7.3.1: Sequence Diagram for <Import Rate>

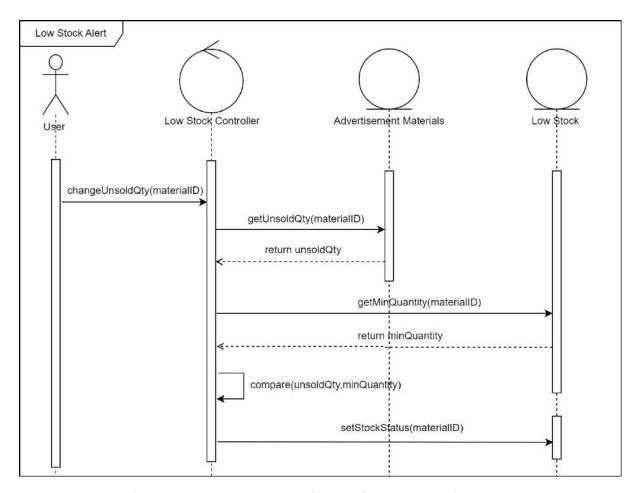


Figure 2.5.7.3.2: Sequence Diagram for <Low Stock ALert>

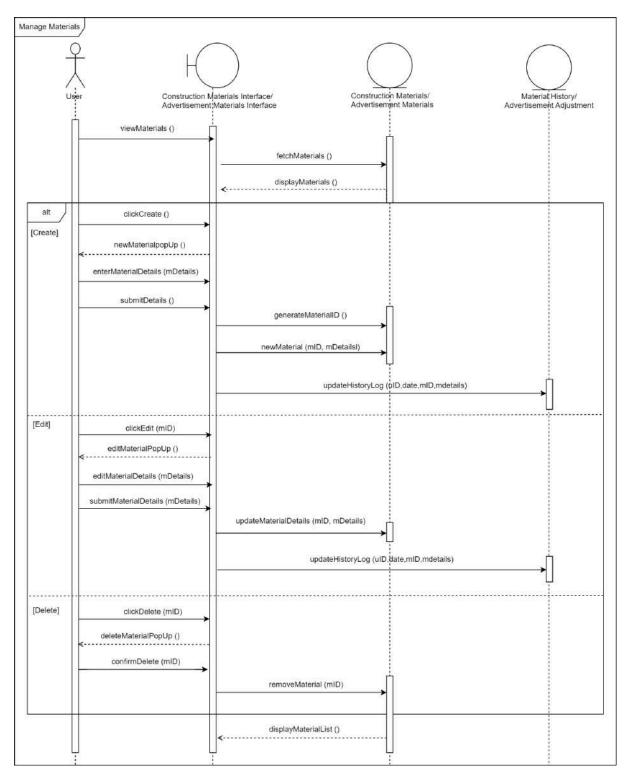


Figure 2.5.7.3.3: Sequence Diagram for <Manage Material>

#### 2.5.8 Module 5: Order Module

#### 2.5.8.1 Use Case Diagram

# AK Maju Business Management System

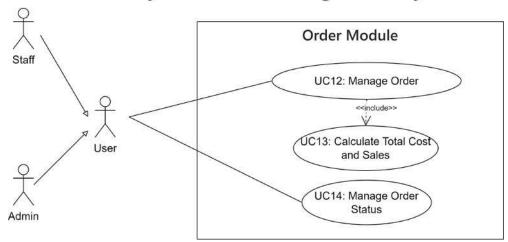


Figure 2.5.8.1.1: Use Case Diagram for Order Module

#### 2.5.8.2 Local Conceptual ERD

Module 5: Order Module

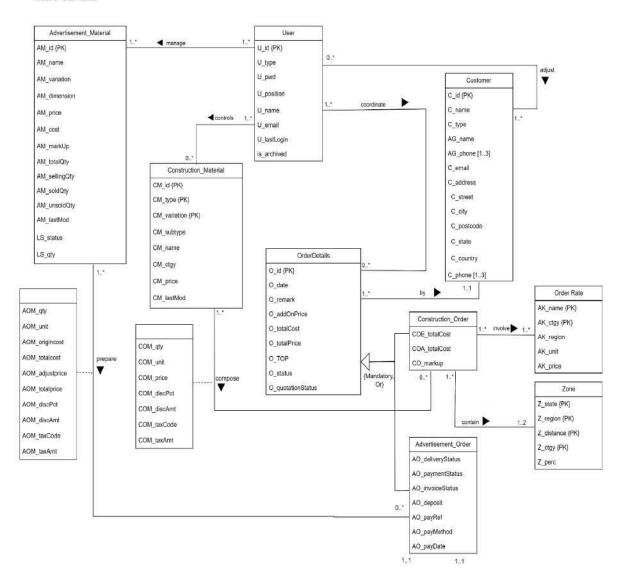
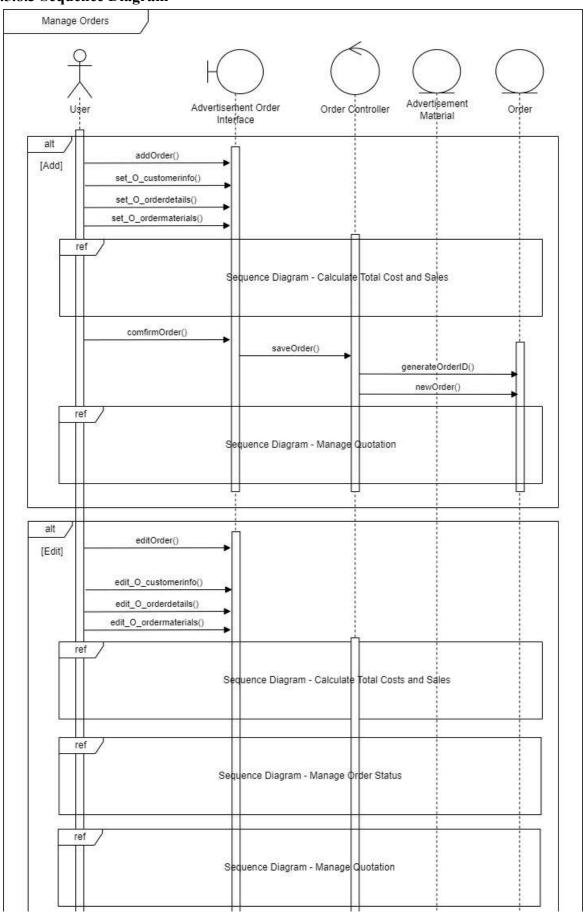


Figure 2.5.8.2.1: Local Conceptual ERD for Order Module

#### 2.5.8.3 Sequence Diagram



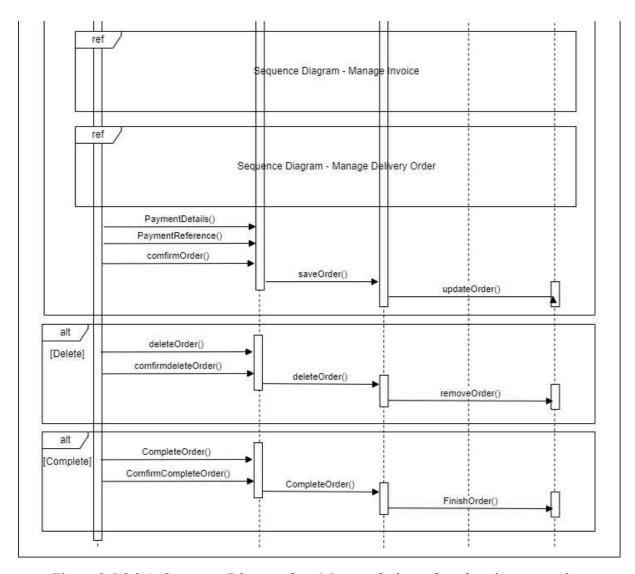
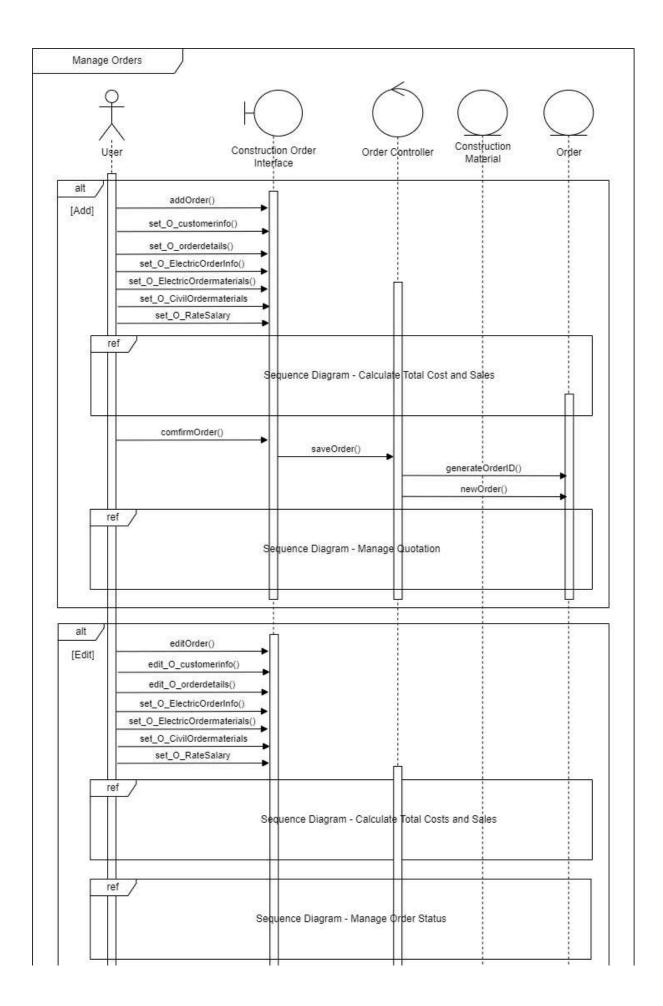


Figure 2.5.8.3.1: Sequence Diagram for <Manage Orders> for advertisement order



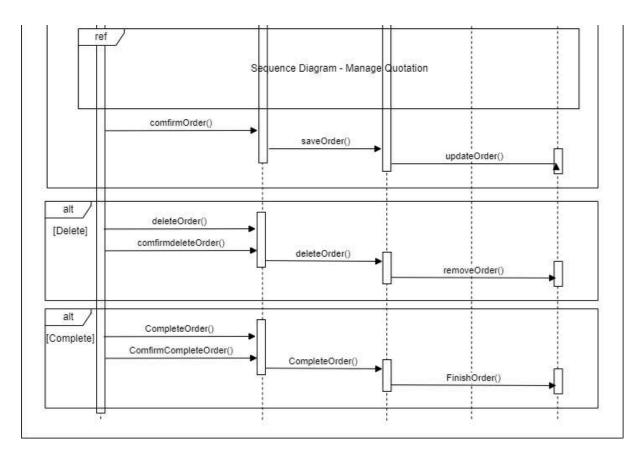


Figure 2.5.8.3.2: Sequence Diagram for <Manage Orders> for construction order

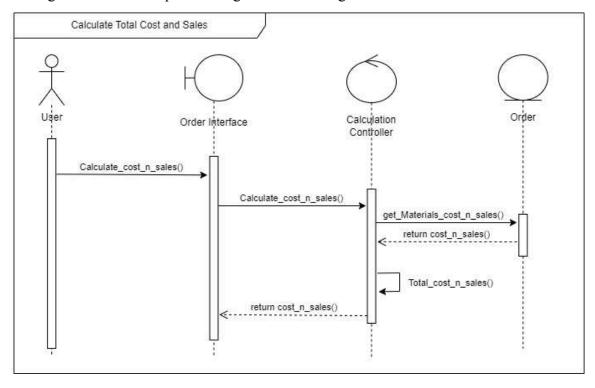


Figure 2.5.8.3.3: Sequence Diagram for < Calculate Total Cost and Sales>

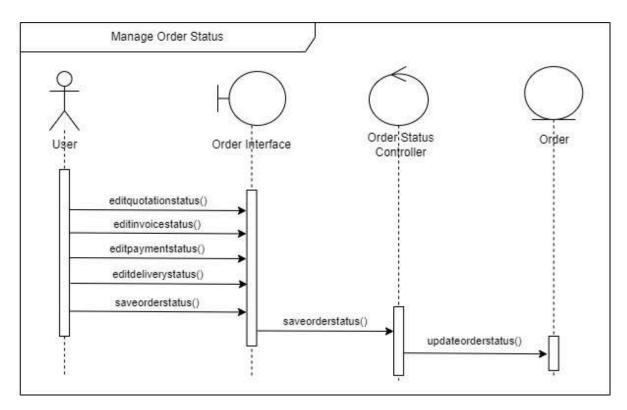


Figure 2.5.8.3.4: Sequence Diagram for <Manage Order Status>

#### 2.5.9 Module 6: Documentation Module

#### 2.5.9.1 Use Case Diagram

# AK Maju Business Management System

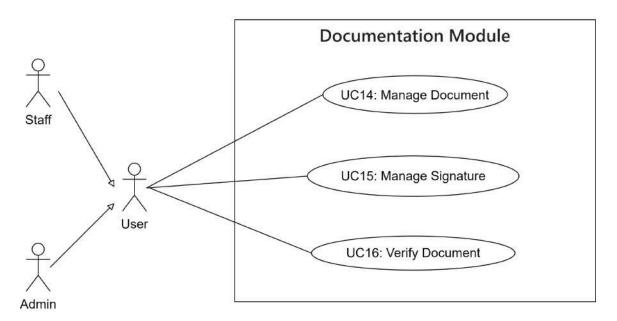


Figure 2.5.9.1.1: Use Case Diagram for Documentation Module

#### 2.5.9.2 Local Conceptual ERD

Module 6: Documentation Module

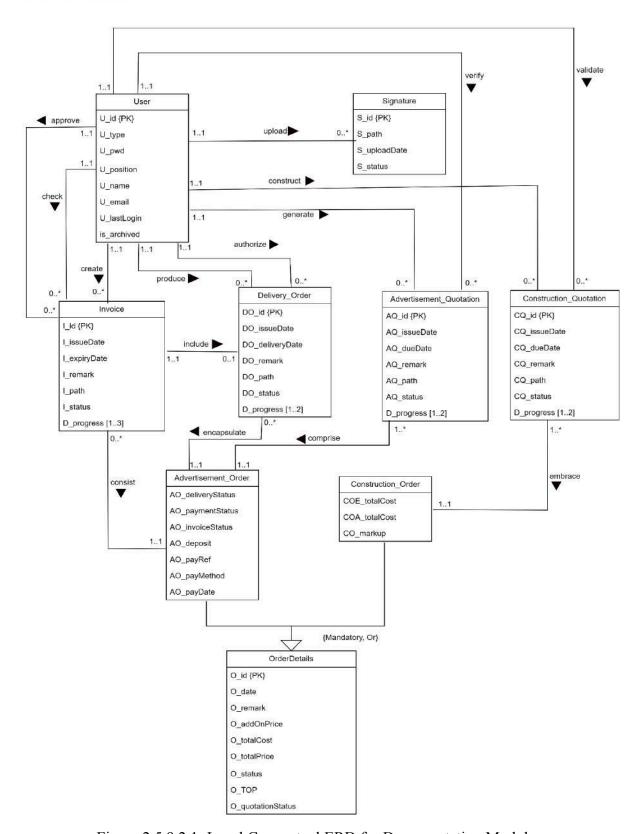


Figure 2.5.9.2.1: Local Conceptual ERD for Documentation Module

#### 2.5.9.3 Sequence Diagram

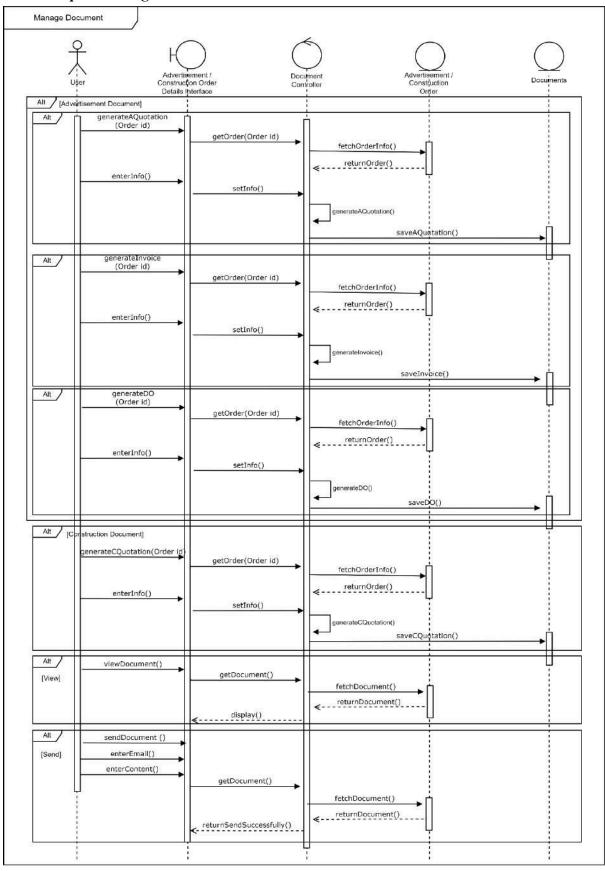


Figure 2.5.9.3.1: Sequence Diagram for <Manage Document>

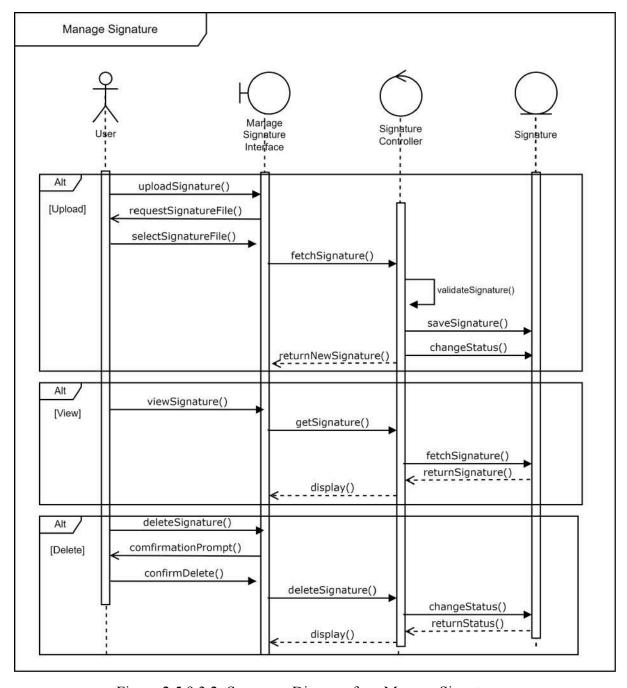


Figure 2.5.9.3.2: Sequence Diagram for < Manage Signature>

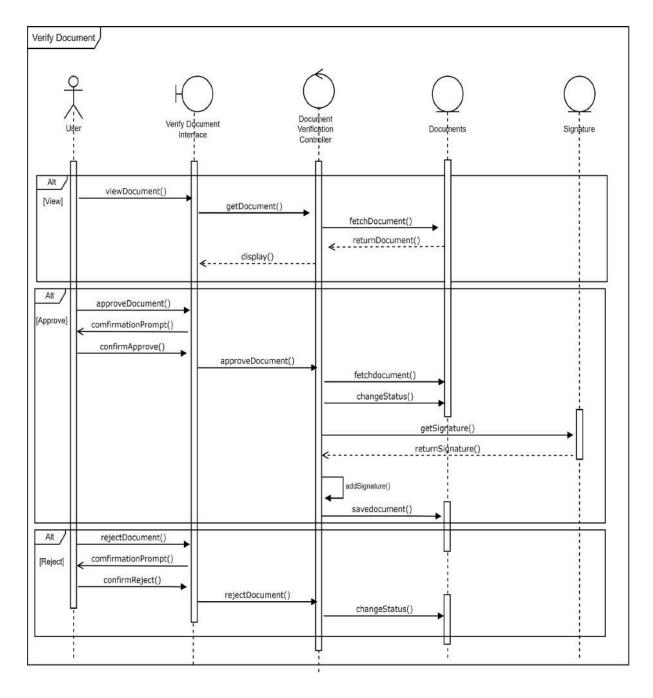


Figure 2.5.9.3.3: Sequence Diagram for <Verify Document>

# 2.6 Development Software, Language, Technology, API and Tools

## 2.6.1 Software

The software that we used during the development process of this AK Maju Business Management System are XAMPP Control Panel, Sublime, Visual Studio Code, Google Chrome, FileZilla, Polypane and Bootstrap Studio.

#### 2.6.1.1 XAMPP Control Panel

XAMPP Control Panel is a stack of software packages that simplifies the process of setting up a local web server environment on our computer, which makes it easy to develop and test before deploying them to a live server.

#### **2.6.1.2 Sublime Text**

Sublime Text is a cross-platform text and source code editor that supports many programming languages.

#### 2.6.1.3 Visual Studio Code

Visual Studio Code is a free streamlined code editor with support for development operations like debugging, task running, and version control. In this system development, it is used for running the codes and debugging.

## 2.6.1.4 Google Chrome

Google Chrome is a free open source website developed by Google. It is used to view the User Interface (UI) of this system and help in testing the code functionality during system development of this system.

#### 2.6.1.5 FileZilla

FileZilla is a free file transfer protocol (FTP) open source software that is used for connecting to other FTP servers to exchange files. It is used to exchange files between local hosting and the web server during system development.

## **2.6.1.6** Polypane

Polypane is a powerful tool to help web developers develop and test every aspect of the site without context switching. It is used to help with web development and creating user manuals during system development.

## 2.6.1.7 Bootstrap Studio

Bootstrap Studio is a website builder that helps developers design the website and simplify the code to minimise the burden of developers on developing a beautiful website. It is used to design the first draft of the website structure for this system.

#### 2.6.2 Language

There are several programming languages that are used while developing this system, which are HTML, PHP, SQL, CSS and JavaScript.

## 2.6.2.1 HyperText Markup Language (HTML)

HTML is a standard markup language for Web pages. It is used as the code's main structure when developing this system.

## 2.6.2.2 Hypertext Preprocessor (PHP)

PHP is an open source scripting language that is widely used to create websites and applications. PHP is mainly used as the connection between the frontend (UI) and the backend (database and functionality of JavaScript) in this system.

## 2.6.2.3 Structured query language (SQL)

SQL is a programming language that is used to communicate with relational databases. It is used for inserting and managing the data inside the database and used to connect with PHP in the development of this system.

## 2.6.2.4 Cascading Style Sheets (CSS)

CSS is a programming language that is used to structure web pages of HTML or XML. In this system, it is used to make the web page more arrangeable and beautiful by designing the style of the web page using CSS.

## 2.6.2.5 JavaScript (JS)

JavaScript is a scripting language that is used to dynamically update content, control multimedia, animate images, and used for more complex functionality in web pages. It is used for designing some complex functionality such as calculating price or order, pop-up when add order, double confirm pop-up and so on in this system.

## 2.6.3 Technology, API and Tools

There are some tools that we used in our project, which are Trello, Draw.io and JimatHosting website

#### 2.6.3.1 Trello

Trello is a visual tool that is used to manage project, workflow or task tracking in a team. It is used to track the tasks that are assigned to each member and monitored by lecturers while doing this system.

#### 2.6.3.2 Draw.io

Draw.io is a free online professional diagramming tool that can be used to draw diagrams. It is used to draw all diagrams that are required such as Use Case Diagram, Activity Diagram, Sequence Diagram, ERD and so on during design and development of the system.

## 2.6.3.3 JimatHosting

JimatHosting is a provider of web hosting services that place their web server in Malaysia. It is chosen as the web host as it consists of the cheap price host, and its server is located in Malaysia. This can help the website load faster and make the user have a better user experience.

# 2.7 Function/Module Explanation

## **Module 1: Authentication**

The <u>index.php</u> displays the login form for both staff and admin users. Their entered credentials are validated against the user database through <u>loginprocess.php</u>. On successful login, staff and admins are redirected to their respective dashboards. If they click the 'Forgot Password' link on the login form, they are redirected to the <u>forgotpassword.php</u> page which requires their registered email address. This triggers an email to the user containing a unique link for resetting their password on <u>reset-password.php</u>. Finally, <u>logout.php</u> handles terminating the user session and redirecting back to the login page at index.php.

The admin can control all users on manageuser.php page. This centralised interface displays active and inactive users, allowing the admin to search, view details, and perform actions on users as needed - without having to leave this page. Interactive modals on manageuser.php handle all actions like creates, edits, deletes and restores. To create a new user, the admin fills out the form fields in the New User modal which then get validated and inserted into the database by adduserprocess.php running behind. To modify an existing user, the admin can select them from manageuser.php and open the Edit User modal to change their information, with the updates by edituser.php. For deleting users, the admin clicks on the delete button beside a user on manageuser.php then confirms the account deletion via a modal. Then the input is passed to deleteuser.php and updates the user status to active. And erroneous deletions can be undone by clicking the restore button to call restoreuser.php to activate the user.

#### Module 2: Dashboard

#### Staff

Staff can access the staff dashboard through <u>staffDashboard.php</u>. Within this dashboard, the staff can view current order status, adjustments and low-stock items. The adjustment items and low-stock items are shown in the tables, respectively. The current order status includes details such as the number of pending approval documents, the number of unpaid orders, the number of undelivered orders and the number of completed orders. This order status information is obtained through the <u>mr.php</u> file.

## **Admin**

Admin can access the admin dashboard through <u>adminDashboard.php</u>. The admin dashboard encompasses all functionalities available to staff members. Additionally, the admin can also view the summarised monthly reports, including metrics such as total products sold, total orders, total profit, best-selling products ranking and top spenders ranking to the admin through interactive charts or graphs. All of these metrics are calculated and obtained through <u>mr.php</u>. They are also allowed to select specific years and months for viewing. For detailed monthly reports, the admin can download monthly report files by clicking the "Download" button for Transaction Listing Report (generated in <u>TransactionListingMR.php</u>), Stock Balance Report (generated in <u>StockBalanceMR.php</u>) or Profit and Loss Monthly Report (generated in <u>ProfitLossMR.php</u>). Furthermore, the admin can utilise <u>pdf\_maker.php</u> to send monthly reports. After the admin clicks the "Send" button, a pop-up appears, prompting them to input the email address for the recipient. After entering the email address and clicking the "Send" button, the system generates a response indicating either success or failure in the email delivery process.

## **Module 3: Customer Management**

## Staff

Staff are able to view the customer information in <u>customer.php</u>, such as customer ID, name, email, address and phone number. Staff can search for the customer that they want to search by customer details. If the customer is the representative of a government or agency, the government or agency information will be recorded in the table, which are government name, government phone, agency name and agency phone.

## <u>Admin</u>

Admin can view the customer information in <u>customer.php</u> same as Staff. However, only Admin can export the customer information. To export customer information, admin can either choose the provided range of date such as 1 month, or choose the "Date From" and "Date To" to select the customer that makes an order in the range of date, or just not choose the range of date and it will export all customer information without limit the date. After the admin chooses the range of date, click on "Export" button and it will generate the excel page in <u>exportcustomer.php</u>. Then, the generated excel will automatically download the excel to the admin computer for them to view in excel.

## **Module 4: Material Management**

#### Advertisement Material

Both staff and admin can control all advertising materials on the <u>admaterial.php</u> page. This centralised interface displays active and archived materials, allowing users to search, view details, and perform actions on materials like creates, edits, deletes and restores without having to leave this page. Additionally, staff and admin can add new material types and edit existing types through <u>addAMType.php</u> and <u>editAMType.php</u>. To add a new material, users fill out the form fields in the New Material modal which then get validated and inserted into the database by <u>addAmaterial.php</u> running behind. To modify an existing material, the admin can select the material and open the Edit Material modal to modify its information, with the updates by <u>editAmaterial.php</u>. For deleting materials, the admin clicks on the delete button beside a material and confirms the removal via a modal. Then the input is passed to <u>deleteAmaterial.php</u> and updates the material status to archived. And erroneous archivals can be undone by clicking the restore button to call <u>restoreAmaterial.php</u> to reactivate the material. Staff and admin can also view a full history of changes made to material pricing, costing, and available quantities via the <u>admaterial-history.php</u> page.

#### Construction Material and Rates

Both staff and admin can control all construction materials on <u>cmaterial.php</u> page. This centralised interface displays active and archived materials, allowing users to search, view details, and perform actions on materials like creates, edits, deletes and restores without having to leave this page. Additionally, staff and admin can add new material types and edit existing types through <u>addCMType.php</u> and <u>editCMType.php</u>. To add a new material, users fill out the form fields in the New Material modal which then get validated and inserted into the database by <u>addCmaterial.php</u> running behind. To modify an existing material, the admin can select the material and open the Edit Material modal to modify its information, with the updates by <u>editCmaterial.php</u>. For deleting materials, the admin clicks on the delete button beside a material and confirms the removal via a modal. Then the input is passed to <u>deleteCmaterial.php</u> and updates the material status to archived. And erroneous archivals can be undone by clicking the restore button to call <u>restoreCmaterial.php</u> to reactivate the material. Furthermore, order rates and zone rates details can be viewed on the <u>rate.php</u> page.

New data can be imported via the <u>import.php</u> or <u>upload.php</u> to upload a csv file containing price or percentages based on state and district and region.

## **Module 5: Order Management**

For the order part, it is designed that both staff and admin have the same functionality, but it is separate to advertisement and construction order, since it consists of some different functionality and similar functionality in both pages.

## Order Main Page

Both advertisement and construction order main page are the same, where advertisement order main page is in <u>AOrder.php</u>, and construction order main page is in <u>COrder.php</u>. In this page, it consists of an "Add Order" button that is used to add a new order. Other than that, this page consists of three tables, which are Order Info table (current order that hasn't completed), Cancelled Order (order that cancelled) and Complete Order (order that completed). Both three tables consist of information such as order ID, order date, customer name, contact number, order remark, total price, total cost and action. The differences for three tables is in the Action column, where for Order Info table it will consist of manage order, delete order and complete order button, but for Cancelled Order and Complete Order table, they only consist of view order button.

## Add Advertisement Order

For add advertisement order, it can be done by clicking on the "Add Order" button in AOrder.php page, and it will lead to AddAOrder.php page. In this page, users are required to fill in the customer information if it is ordered by a new customer, or they can choose an existing customer (customer that ordered before). After filling in customer information, the next step is to fill in the order details which includes order date, remark and term of payment. By clicking on the "Add Order Material" button, it will lead to <a href="mailto:saveAOM.php">saveAOM.php</a> page to save the order information, and direct to <a href="mailto:saveAOM2.php">saveAOM2.php</a> page.

In this page, users will start to fill in the order material information. Users can add multiple order material by filling in the order material details in this page (if save material will direct to <a href="mailto:save\_Aaddorder.php">save\_Aaddorder.php</a>), and this page is designed to avoid user fill in material that does not exist in the database. Nonetheless, there is also a Material Selected table that lists all of the material selected by the user for them to check the list of material, and users can edit (direct to <a href="mailto:save\_Aedited\_material.php">save\_Aedited\_material.php</a>) and delete the selected material (direct to <a href="mailto:delete\_Amaterial.php">delete\_Amaterial.php</a>) in this table. After fill in all material details, users can click on "Order Summary" button and it will direct them to <a href="mailto:saveorder.php">saveorder.php</a> page.

Next, this page is an order summary page, and it consists of an order summary table and quotation card. For the Order Summary table, it consists of the details of the summary for this order, such as order id, date, customer name, contact number, total cost and total price of this order. Users can also manage quotations by generating them on this page (details will be written in Module 6).

## Add Construction Order

For add construction order, it can be done in five steps, which is to fill in order details, add electric order material, add rate salary, add civil order material and order summary. Users can direct to add construction order by clicking on "Add Order" in COrder.php page, and it will lead to AddCOrder.php page. At first, similar to add advertisement order, users are required to fill in customer information and order details, but it has some difference that users are required to fill in electric and civil information such as state, region, distance and any add-on percentage due to transportation problems. After filling in all details, the user clicks on the "Add Electric Order Material" button and it will lead to <a href="mailto:save\_Corder.php">save\_Corder.php</a> to process and save the order, and direct to <a href="mailto:AddCEOrdermaterial.php">AddCEOrdermaterial.php</a> page.

In this page, users will be required to fill in the electric order material as a similar method for filling in the order material in the Add Order Material in Advertisement page. After filling in all order material, the user will click on the "Add Kejuteraan Kadar" button and it will lead to <a href="AddKABuruh.php">AddKABuruh.php</a> page. Users can add Labor Wage Rate and Lodging Rent Rate in this page and save them. Users can also view the list of Labor Wage Rate and Lodging Rent Rate in the table, and delete the selected items. After this, the user will click on "Add Kejuteraan Order Material" button and direct to <a href="AddKAOrdermaterial.php">AddKAOrdermaterial.php</a> page.

This page is also similar to the Add Electric Order Material and Add Advertisement Order Material, where users can add civil order material, view the list of civil order material, edit and delete civil order materials. After the user is done managing the civil order material, the user will click on the "Order Summary" button and it will lead to <a href="mailto:save\_CAddorder.php">save\_CAddorder.php</a> page. This page will list the order summary, and enable users to edit the order markup (the percentage of profit in one order). Other than that, users can also generate quotations in this page (details written in Module 6).

## Manage Advertisement Order

Users can direct to this page by clicking the blue book icon for select order in Order Main Page (AOrder.php) and it will direct to EditAOrder.php. By default, all the details in this page, including Customer Information, Order Details, Material Selected, Quotation, Invoice, Delivery Order, Order Status, Order Summary, Order Payment and Payment Reference are stored in cards, collapsed and viewed only. Users can open the cards by clicking on the collapse card to view the information and click on the "Edit" button on the top-right to edit the information. After editing the information, the user can click on the "Save" button to save the changes. For order material, users can either add, edit or delete the order material in the "Material Selected" card. Other than that, users can generate, view and email the documentation, such as quotation, invoice and delivery order in this page (details written in Module 6). Users can also manage the order status of the order, including quotation status, invoice status, payment status and delivery status. Since advertisement order includes payment, thus users can record the order payment and manage the payment reference (include upload, view, delete and restore) in this page.

## Manage Construction Order

Users can direct to this page by clicking the blue book icon for select order in Order Main Page (COrder.php) and it will direct to EditCOrder.php. There are some similarity of manage construction order with manage advertisement order such as Customer Information, Order Details and Order Summary, but there are also some difference such as Electric Information, Civil Information, Electric Order Material, Civil Order Material, Order Rate, Order Status (only quotation), quotation document and all of them are also store in collapsed cards. For Electric Information and Civil Information, both of them are similar to the Add Construction Order part, which allows users to edit state, region, distance and add-on percentage due to transportation problems in EditCOrder.php page. In addition, Electric Order Material (in EditCOrdermaterial.php page) and Civil Order Material (in EditKAOrdermaterial.php page) also similar as Add Construction Order, where allowed users to add. edit and delete order material for the order. Furthermore, users can edit order rates similar to Add Construction Order in EditKABuruh.php page, which can add and delete both Labor Wage Rate and Lodging Rent Rate. Lastly, in the Order Summary page for Edit Order, users can edit the order markup (percentage of profit), view order summary, and manage the quotation (details written in Module 6) in <u>save CEditorder.php</u> page.

## Delete Order

For Delete Order, users can click on the red trash button in both advertisement (AOrder.php) and construction (COrder.php) order main page for selected order. After they click on the delete button, the system will pop-up an alert to double confirm the user really wants to delete the order to avoid accidentally clicking on it. After delete order, the order will be listed in the Cancelled Order Table and allow the user to view the order details for the order only.

## Complete Order

For Complete Order, users can click on the green tick button in both advertisement (AOrder.php) and construction (COrder.php) order main page for selected order. After they click on the complete button, the system will pop-up an alert to double confirm the user really wants to complete the order to avoid accidentally clicking on it. If it is an advertisement order, users only can complete the order when the payment status for the order is "Fully Paid", while for construction order can be completed after double confirmation with no obstruction. After complete order, the order will be listed in the Completed Order Table and allow the user to view the order details for the order only.

## View Order Details after delete or complete order

For advertisement order, users can direct to View Order Details page (AOrderDetails.php) by clicking on blue book buttons in Advertisement Order Main page (AOrder.php) for the selected order in Cancelled Order table or Completed Order table. In this page, users can view the customer information, list of order material, order status, documentation (quotation, invoice and delivery order), order payment and order summary.

For construction order, users can direct to View Order Details page (COrderDetails.php) by clicking on blue book buttons in Construction Order Main page (COrder.php) for the selected order in Cancelled Order table or Completed Order table. In this page, users can view customer information, electric information, civil information, list of labour wage or lodging rent rate, list of electric order material, list of civil order material, quotation and order summary.

#### **Module 6: Documentation**

Both staff and admin can perform the same action for advertisement documents, construction documents and signatures. However, for document verification, they have different levels of access privileges.

#### Generate, View and Send Advertisement Documents

Users can generate advertisement quotations, invoices and delivery orders in EditAOrder.php or saveorder.php. A pop-up will appear after the user clicks the "Generate" button, prompting them to input the required information, such as the remark. The information will then be transferred to specific processing scripts: generateAO.php for advertisement quotations, generateDO.php for delivery orders, and generateInvoice.php for invoices, respectively, and the document will be generated. These scripts automatically populate fields such as customer information, document ID, issue date, SST registration number, payment terms (entered in the order module), and item details (also entered in the order module). For advertisement quotations and delivery orders, the status will change to "Pending Approval" once they are generated, while for invoices, the status will change to "Pending Review and Approval". Besides, the user can view the advertisement quotation in openAquotation.php, the invoice in openInvocie.php and the delivery order in openDO.php after clicking the "View" button. After clicking the "Send" button, they can also send the advertisement quotation through emailAO.php, invoice through emailInvoice.php and delivery order through emailDO.php.

## Generate, View and Send Construction Documents

Users can generate the construction quotations in <a href="save\_CEditorder.php">save\_CEditorder.php</a> or <a href="save\_CAddorder.php">save\_CAddorder.php</a>. Upon clicking the "Generate" button, a pop-up prompts the user to input necessary information, including the due date and the remark. The entered information is then passed to the script <a href="generateCQ.php">generateCQ.php</a> to create the construction quotation. Similar to the advertisement quotation generation process, various fields in the quotation are automatically filled, including customer information, quotation ID, issue date, SST registration number, payment terms (entered in the order module), and item details (entered in the order module). The status of the quotation will change to "Pending Approval" once it is generated. In addition, the user can view the generated construction quotation through <a href="mailco.php">openCquotation.php</a> or utilise <a href="mailco.php">emailco.php</a> to send the construction quotation to the customer via email.

## **Verify Documents**

## **Staff**

The staff can check the invoice generated in <u>staffVerification.php</u>. They can click the "View" button to open the invoice for review. After reviewing, they can click the "Check" button to approve the invoice or the "Reject" button to reject it. The checked response will pass to <u>staffVerificationProcess.php</u>, and the invoice status will change to "Pending Approval", while the rejected response will pass to <u>staffReject.php</u>, and the invoice status will change to "Rejected". In addition, they can view all the advertisement quotations, construction quotations, invoices and delivery orders here, no matter their status.

## <u>Admin</u>

In the <u>adminVerification.php</u> page, the admin can verify various documents, including advertisement quotations, construction quotations, invoices and delivery orders. They can review the contents of the respective documents by clicking the "View" button. After viewing the documents, the admin can take further actions such as checking, approving or rejecting them. By clicking the "Check" or "Approve" button, the response is processed through <u>adVerificationProcess.php</u>. For documents initially marked as "Pending Approval," the status will change to "Approved" after approval. However, for invoices initially labelled as "Pending Review and Approval," the status will change to "Pending Approval" following the checking process. In the case of rejection, the admin can click the "Reject" button. The reject response is handled by <u>adminReject.php</u>, resulting in a status change for the corresponding invoice to "Rejected."

## Manage Signature

Users can upload their signatures for the document approval process in <u>signature.php</u>. They can click the "Upload" button and select the image to upload. After that, the image will pass to <u>upload.php</u>, and the signature will be saved in the database. If there is an existing signature for a particular user, the existing signature will become "Inactive" and the new signature will become "Active". The user can also delete the signature by clicking the "Delete" button. It will be passed to <u>deleteSig.php</u>, and the signature status will become "Inactive".

# 2.8 System Credentials (Hosting)

Website address: <a href="https://akmaju.com/AKMaju/">https://akmaju.com/AKMaju/</a>

## Login to JimatHosting using gmail

Gmail: <a href="mailto:akmaju30@gmail.com">akmaju30@gmail.com</a>
Password: jimatHosting3!

## **JimatHosting CPanel**

Username: akmajuco Password: JoeX0VS2:%C4

## **User Credentials**

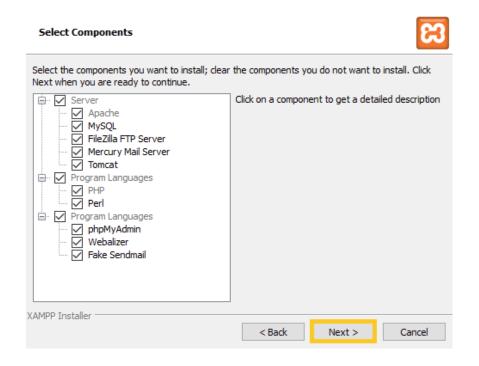
Admin ID: 003	Staff ID: S07
Admin password: polo123	Staff password: abc1234

# 2.9 Localhost Setup

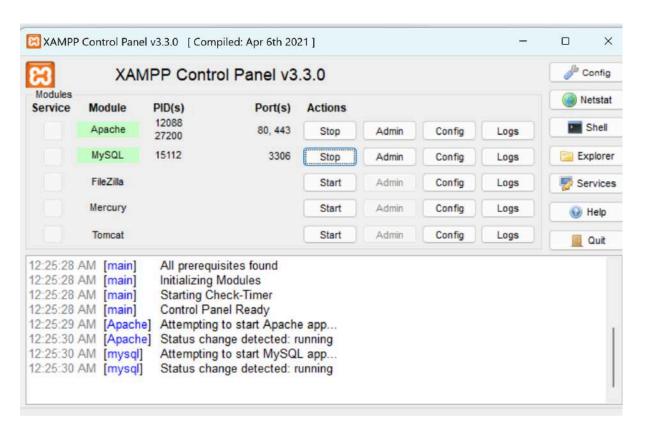
1. Visit the official XAMPP website (<a href="https://www.apachefriends.org/index.html">https://www.apachefriends.org/index.html</a>) to download the version based on your operating system.



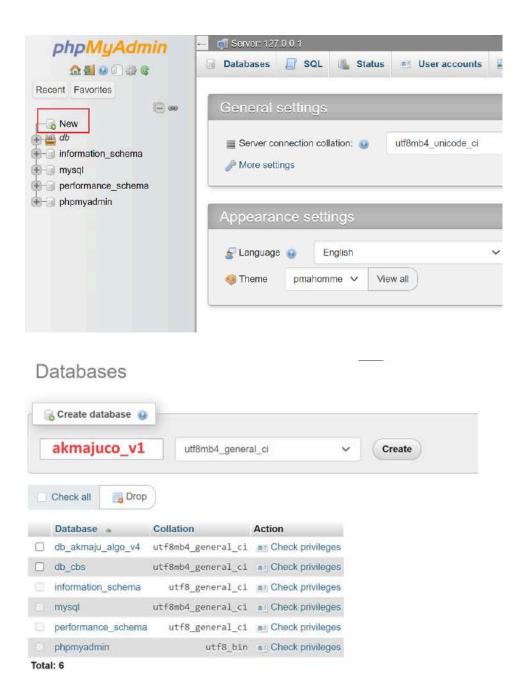
2. Run the installer and choose the components you need, such as Apache and MySQL.



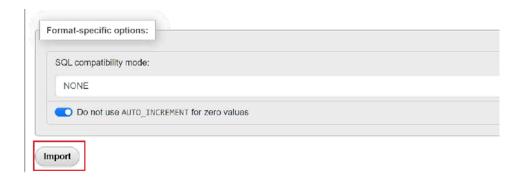
3. Open the XAMPP Control Panel and start both Apache and MySQL.



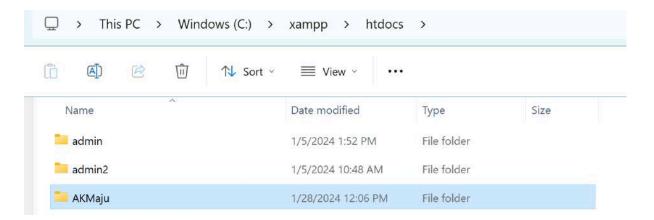
- 4. Open your web browser and visit <a href="http://localhost/phpmyadmin">http://localhost/phpmyadmin</a>.
- 5. Click on the "New" button to create a new database with name akmajuco\_v1



- 6. Go to the "Import" tab in phpMyAdmin.
- 7. Unzip your downloaded 'Alogtechies Akmaju' files.
- 8. Click on "Choose File" to select the 'akmajuco v1.sql' file and click 'Import'.



9. Locate the extracted 'akmaju' files to the htdocs root folder.



10. Open your web browser and visit <a href="http://localhost/AKMaju">http://localhost/AKMaju</a>

# 2.10 System Interface for All Users

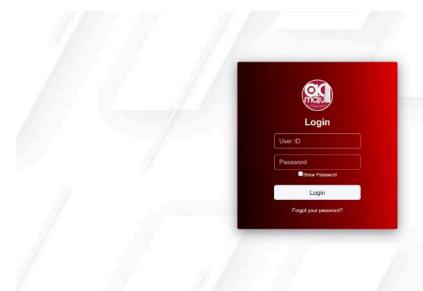


Figure 10.1: Login page for admin and staff



Figure 10.2: Forgot password page for admin and staff



Figure 10.3: Reset password page for admin and staff

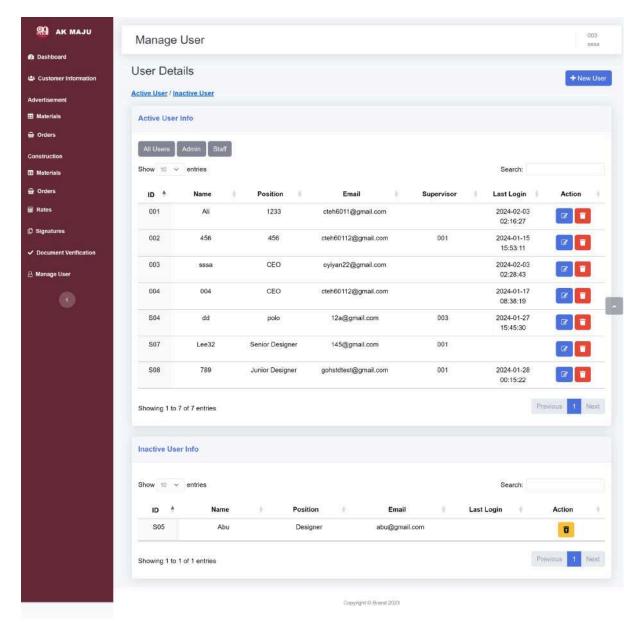


Figure 10.4: Admin viewing active and inactive user details

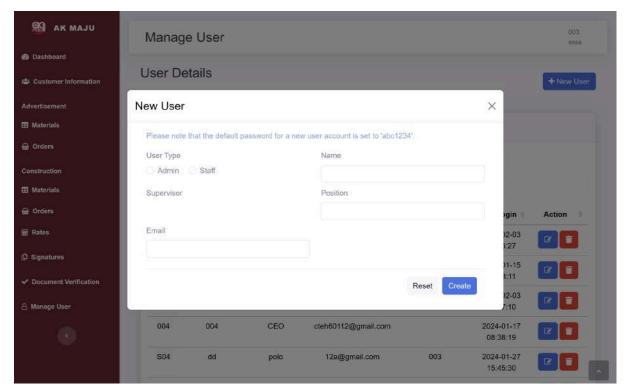


Figure 10.5: Admin adding new user

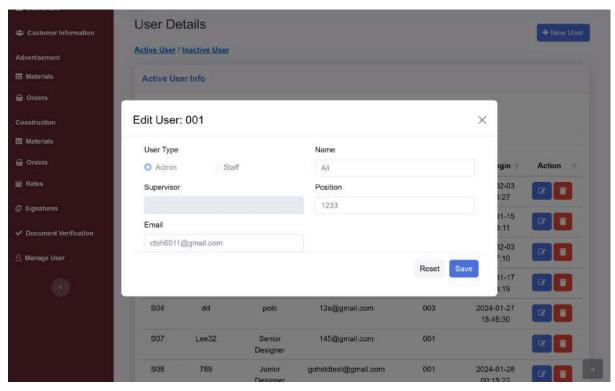


Figure 10.6: Admin editing existing user

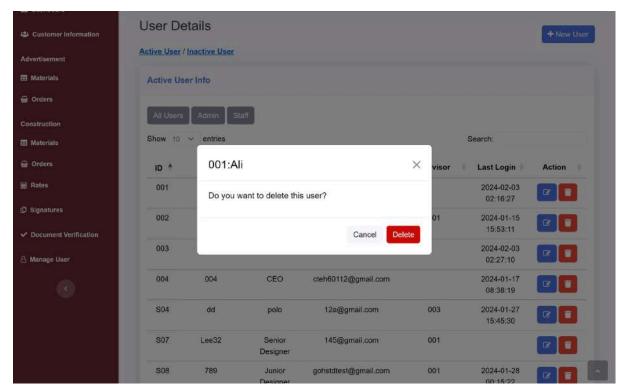


Figure 10.7: Admin deleting existing user

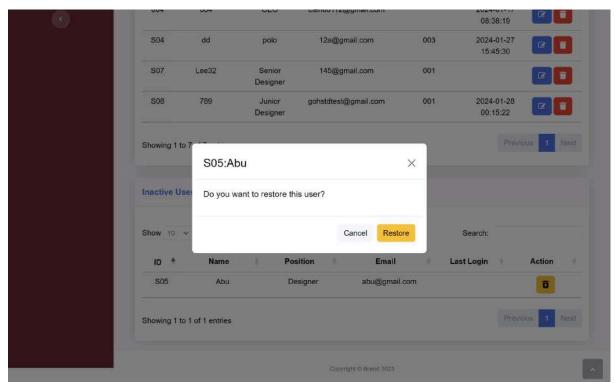


Figure 10.8: Admin restoring deleted user

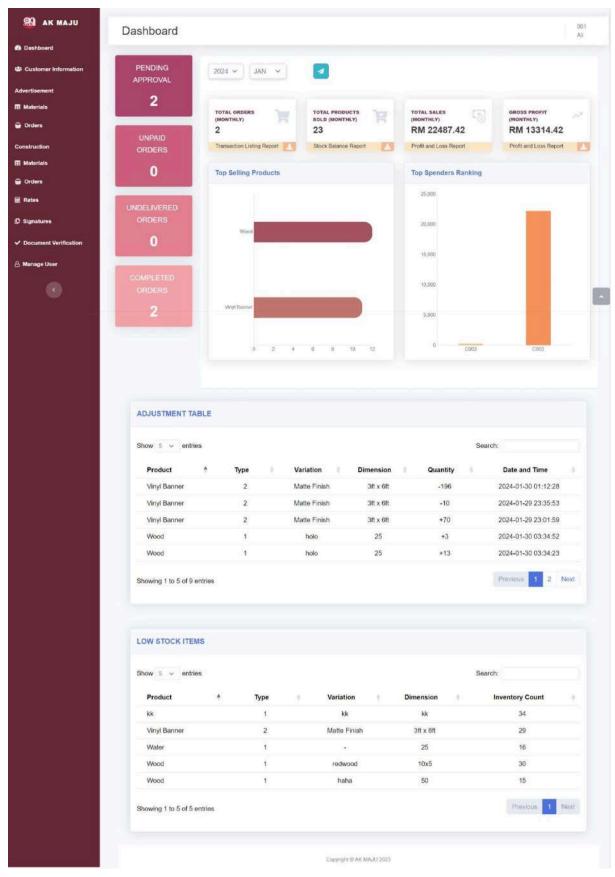


Figure 10.9: Admin dashboard

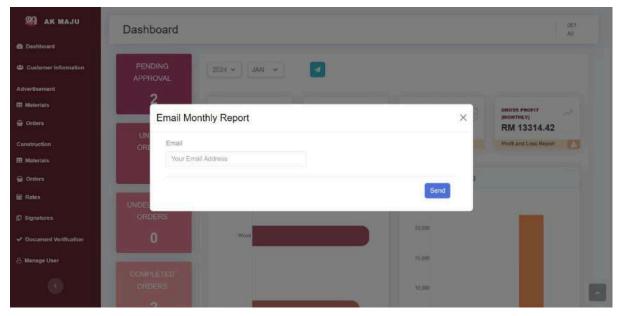


Figure 10.10: Admin sending monthly report

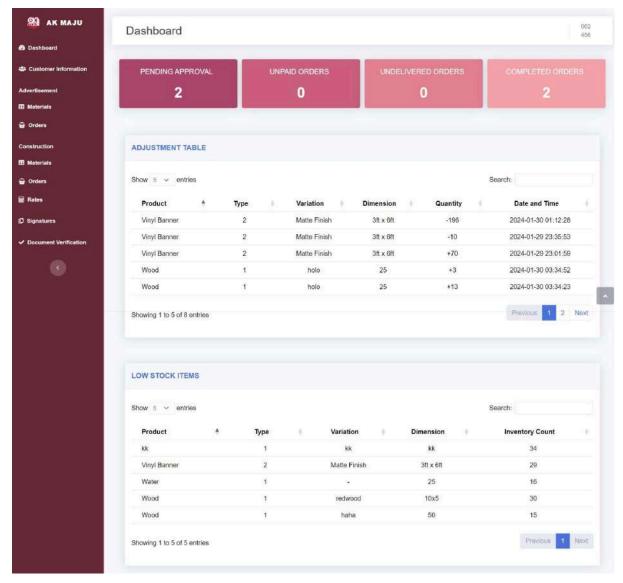


Figure 10.11: Staff dashboard

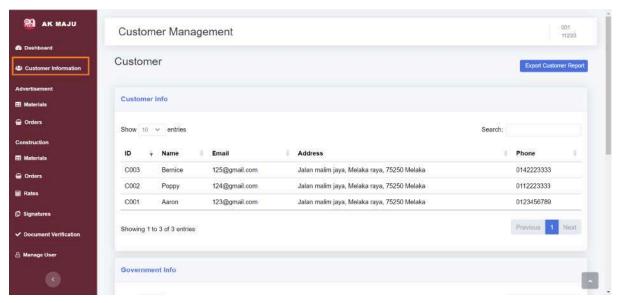


Figure 10.12: Customer Management Page

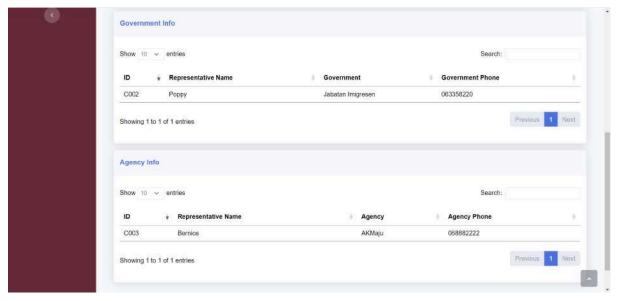


Figure 10.13: Government and Agency Table in Customer Management Page

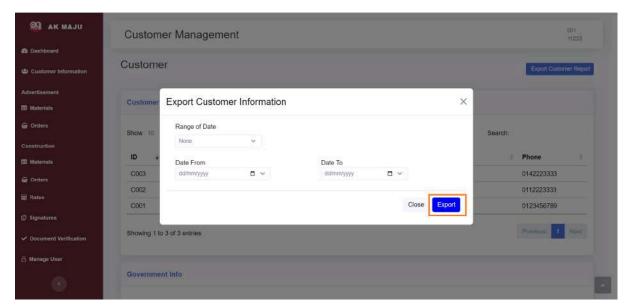


Figure 10.14: Export Customer Report in Customer Management Page

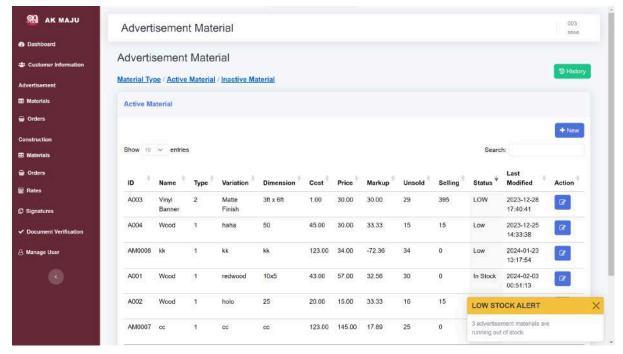


Figure 10.15: Admin and staff viewing low stock alert

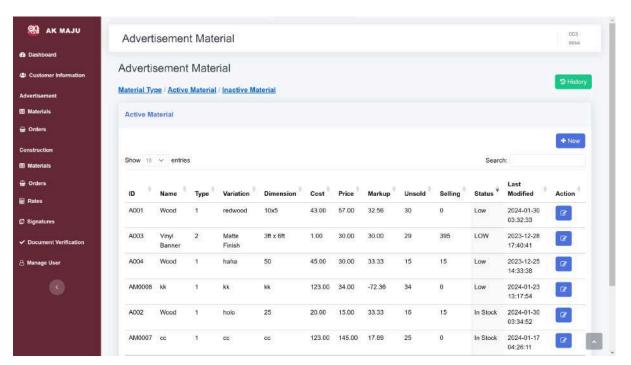


Figure 10.16: Admin and staff viewing active advertisement material

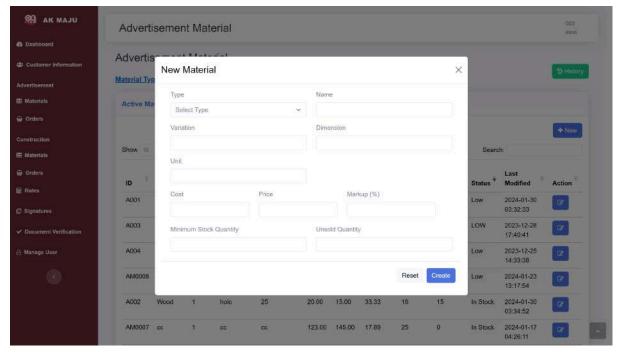


Figure 10.17: Admin and staff adding new advertisement material

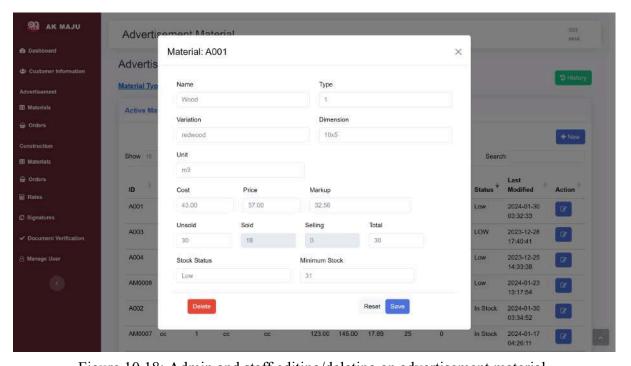


Figure 10.18: Admin and staff editing/deleting an advertisement material

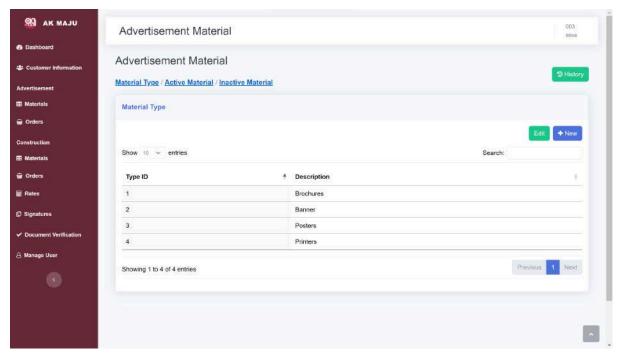


Figure 10.19: Admin and staff viewing types of advertisement material

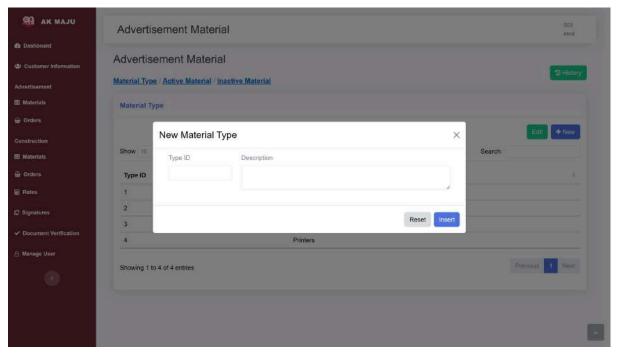


Figure 10.20: Admin and staff adding new advertisement material type

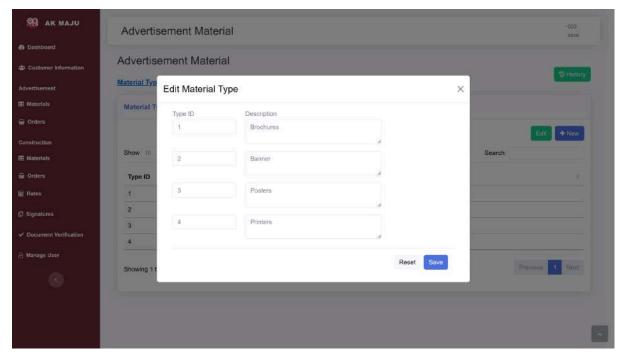


Figure 10.21: Admin and staff editing advertisement material type

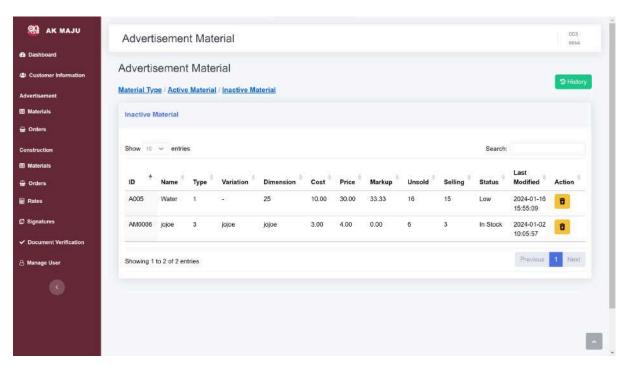


Figure 10.22: Admin and staff viewing inactive advertisement material

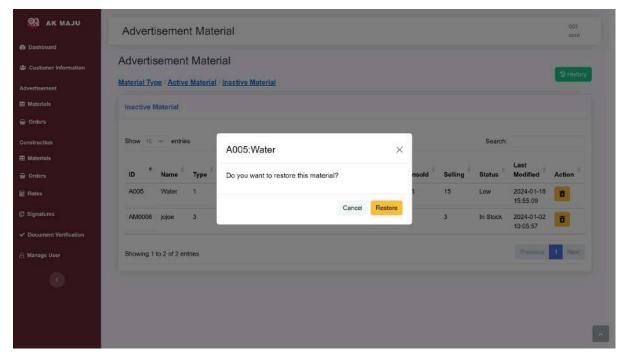


Figure 10.23: Admin and staff restoring inactive advertisement material

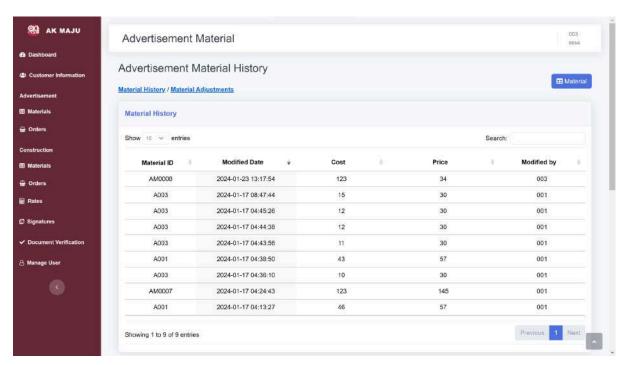


Figure 10.24: Admin and staff viewing advertisement material history

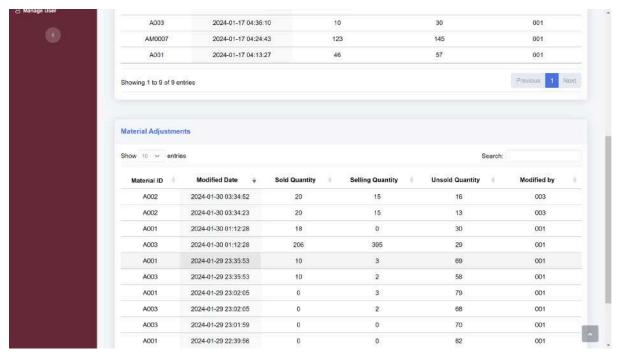


Figure 10.25: Admin and staff viewing advertisement material adjustment

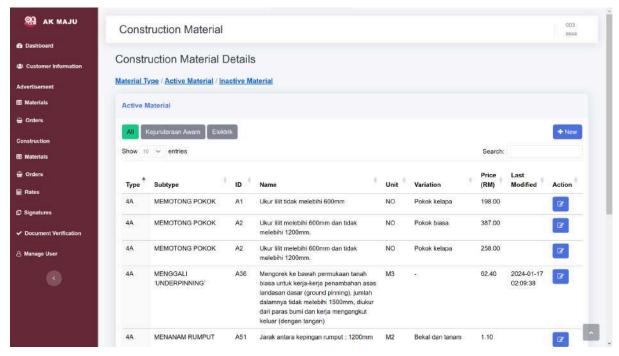


Figure 10.26: Admin and staff viewing construction material

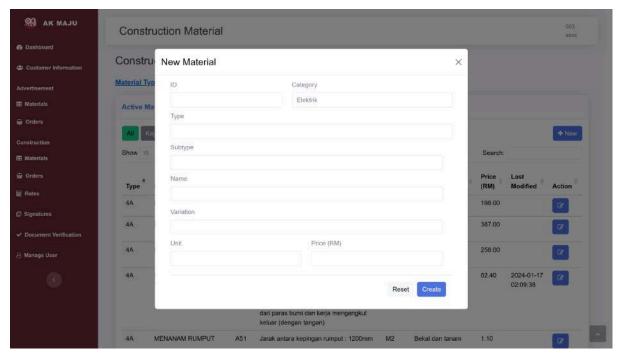


Figure 10.27: Admin and staff adding new construction material

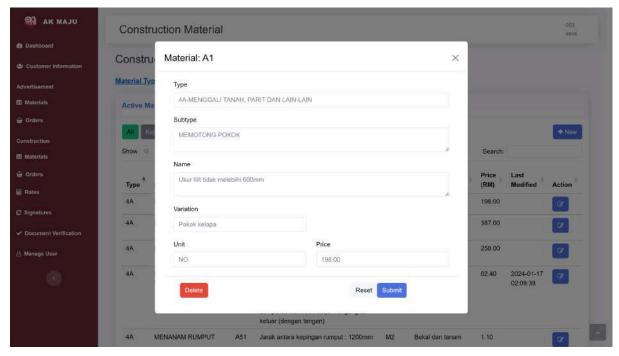


Figure 10.28: Admin and staff editing/deleting construction material

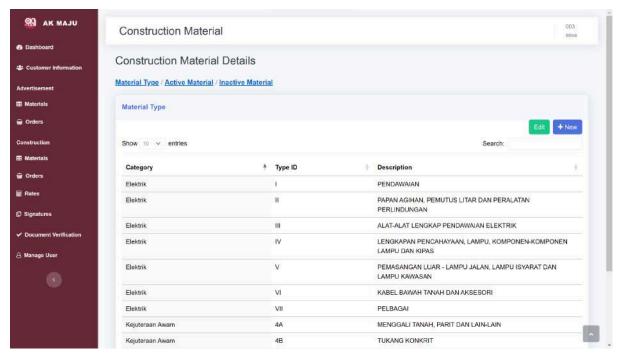


Figure 10.29: Admin and staff viewing types of construction material

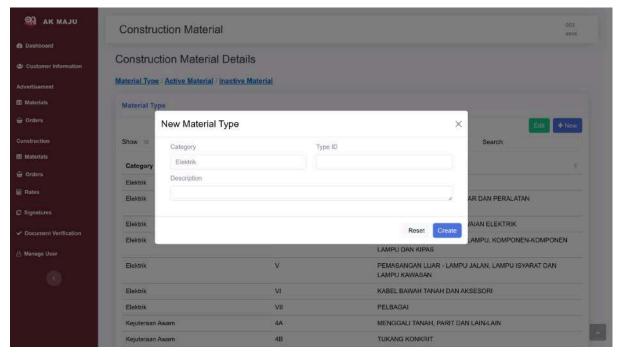


Figure 10.30: Admin and staff adding new type of construction material

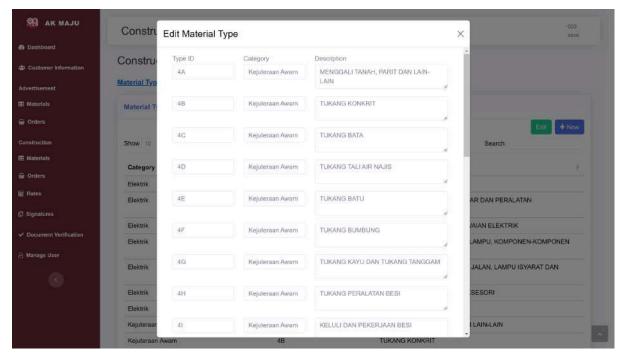


Figure 10.31: Admin and staff editing types of construction material

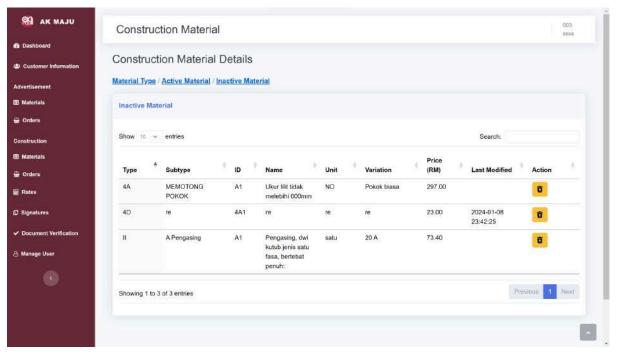


Figure 10.32: Admin and staff viewing inactive construction material

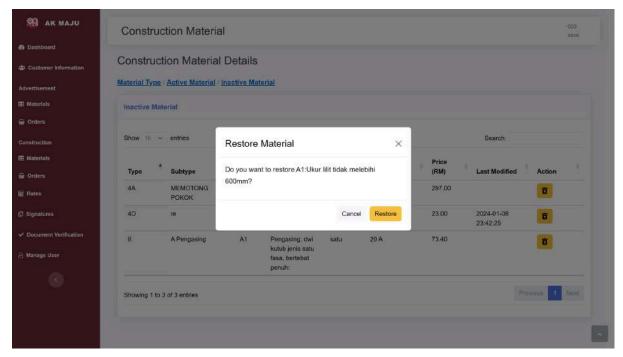


Figure 10.33: Admin and staff restoring inactive construction material

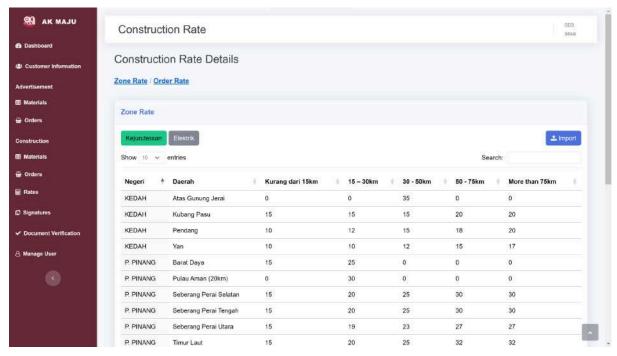


Figure 10.34: Admin and staff restoring construction zone rate

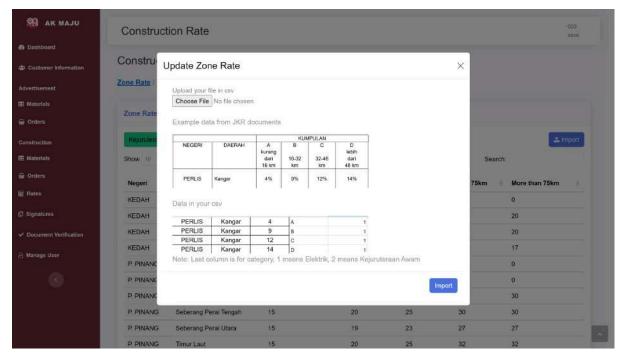


Figure 10.35: Admin and staff updating construction zone rate

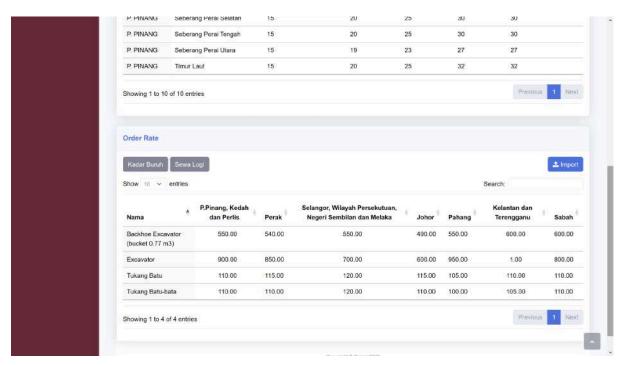


Figure 10.36: Admin and staff viewing construction order rate

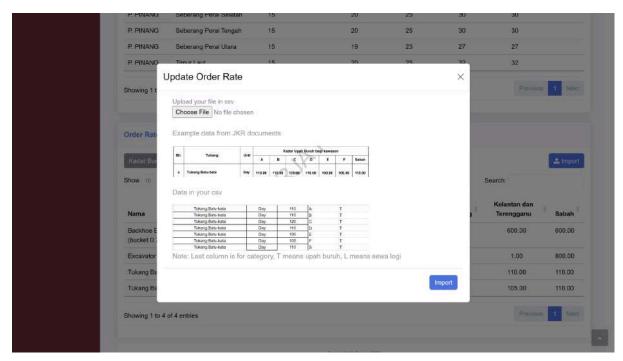


Figure 10.37: Admin and staff updating construction order rate

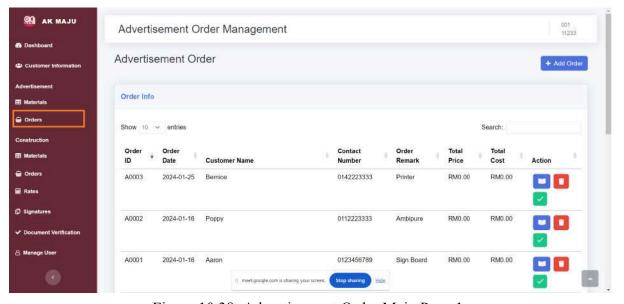


Figure 10.38: Advertisement Order Main Page 1

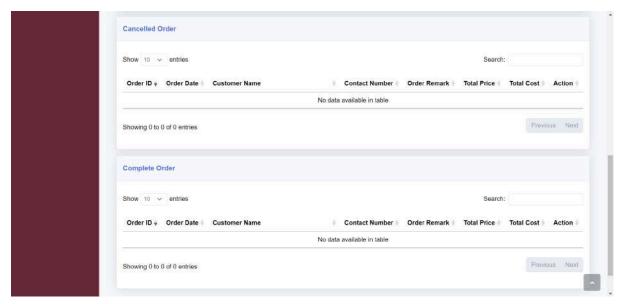


Figure 10.39: Advertisement Order Main Page 2

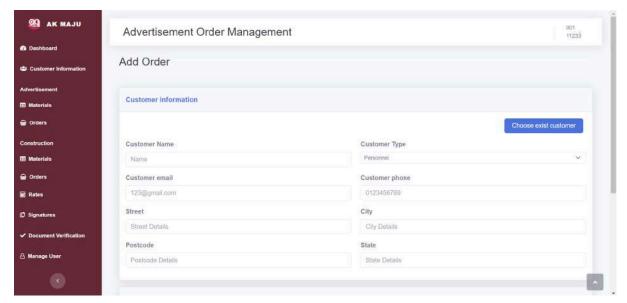


Figure 10.40: Add Advertisement Order Page 1

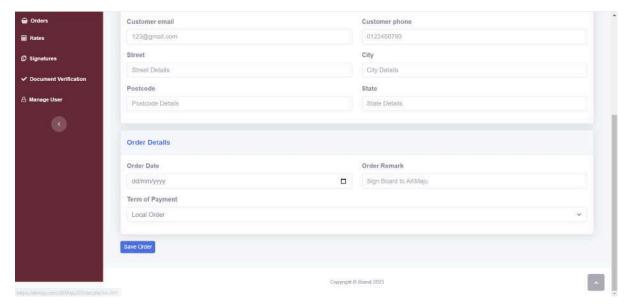


Figure 10.41: Add Advertisement Order Page 2

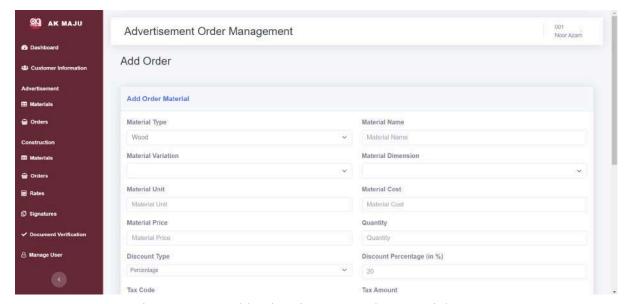


Figure 10.42: Add Advertisement Order Material Page 1

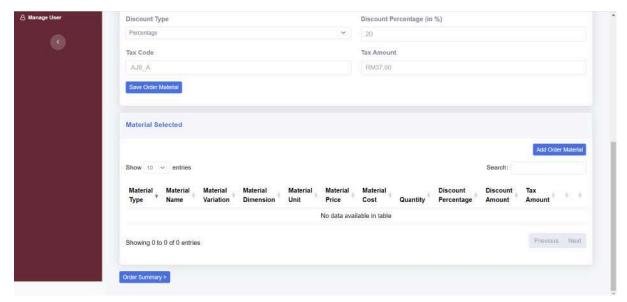


Figure 10.43: Add Advertisement Order Material Page 2

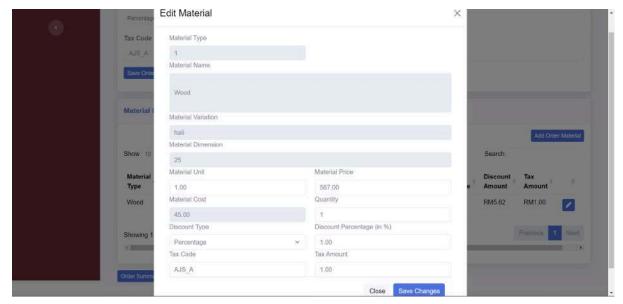


Figure 10.44: Edit Order Material in Add Advertisement Order Material Page

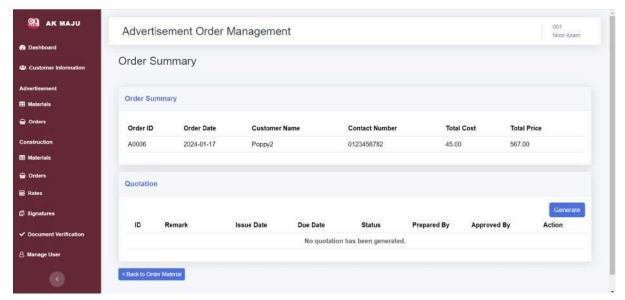


Figure 10.45: Order Summary in Add Advertisement Order Page

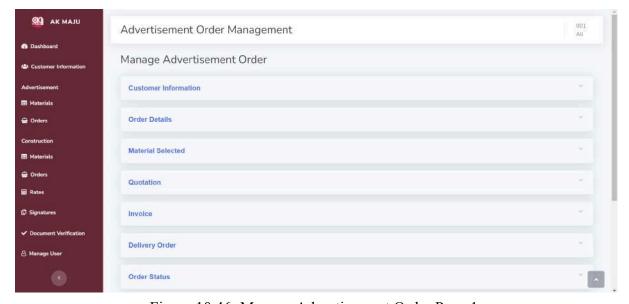


Figure 10.46: Manage Advertisement Order Page 1

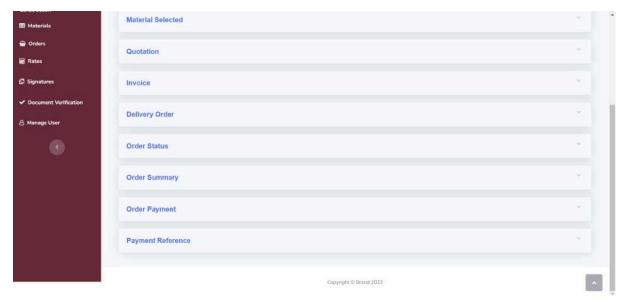


Figure 10.47: Manage Advertisement Order Page 2

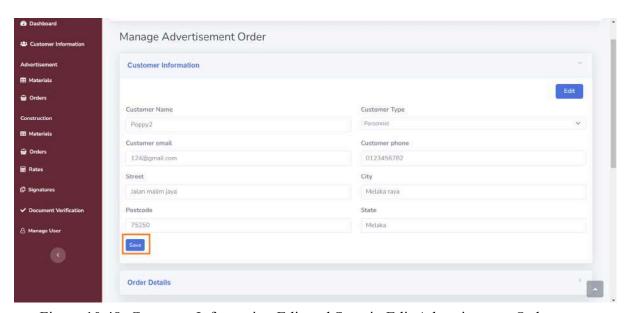


Figure 10.48: Customer Information Edit and Save in Edit Advertisement Order page

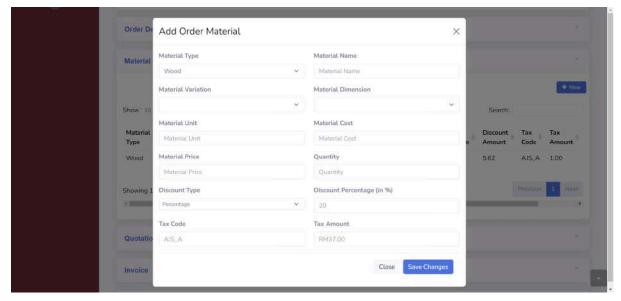


Figure 10.49: Add new order material in Edit Advertisement Order page

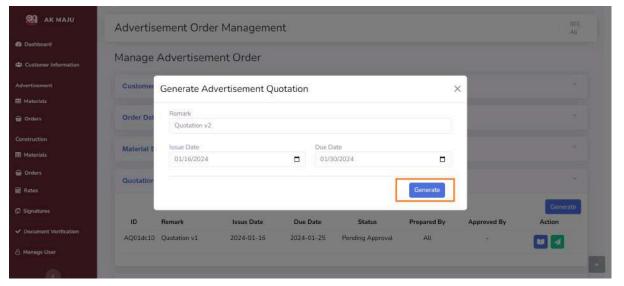


Figure 10.50: Generate Quotation in Manage Advertisement Order Page

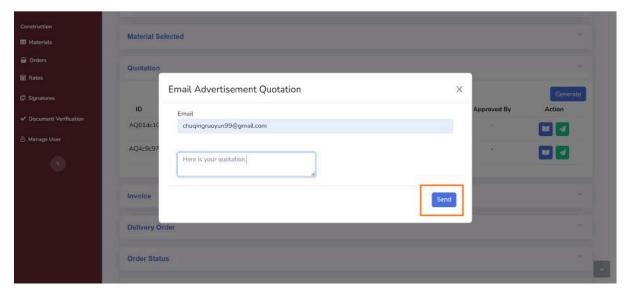


Figure 10.51: Send Quotation in Manage Advertisement Order Page

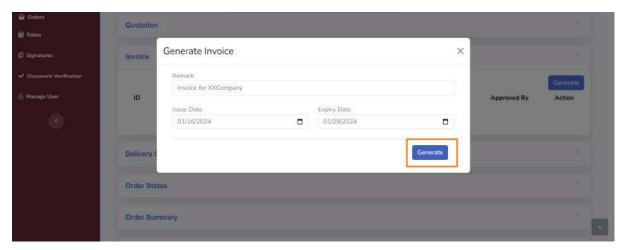


Figure 10.52: Generate Invoice in Manage Advertisement Order Page

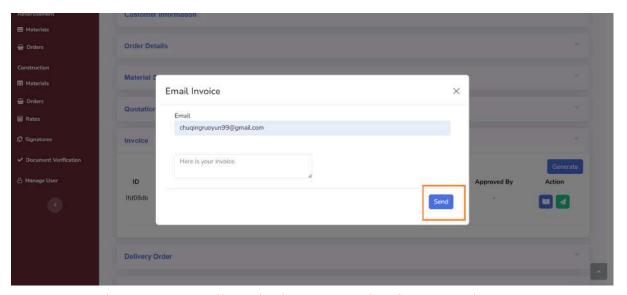


Figure 10.53: Email Invoice in Manage Advertisement Order Page

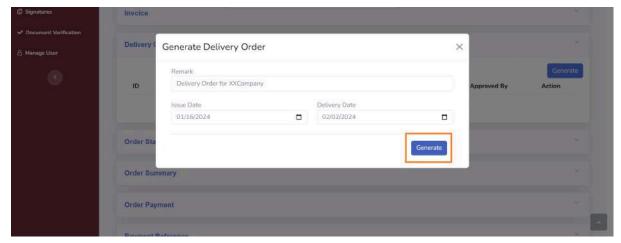


Figure 10.54: Generate Delivery Order in Manage Advertisement Order Page

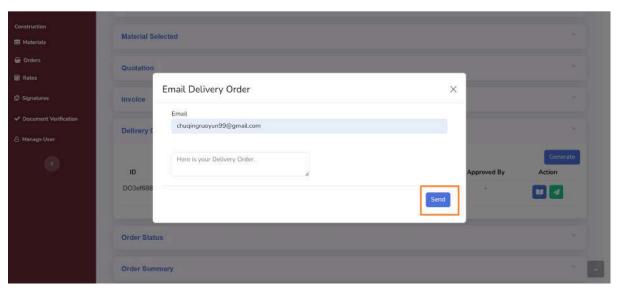


Figure 10.55: Send Delivery Order in Manage Advertisement Order Page

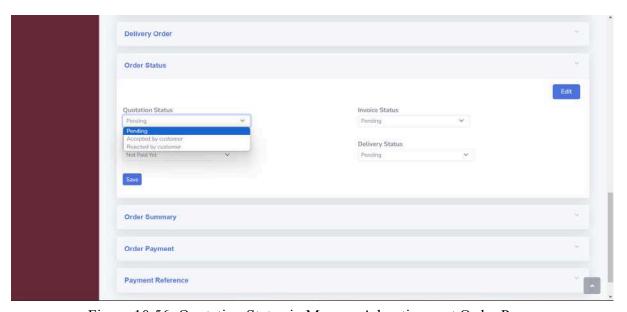


Figure 10.56: Quotation Status in Manage Advertisement Order Page

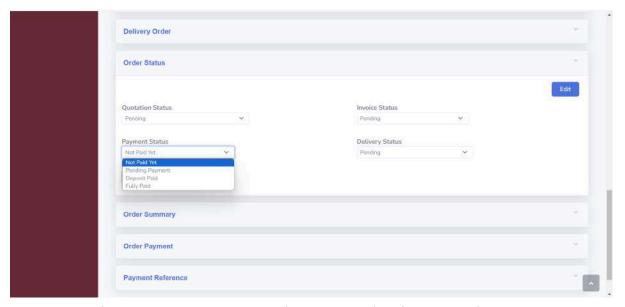


Figure 10.57: Payment Status in Manage Advertisement Order Page

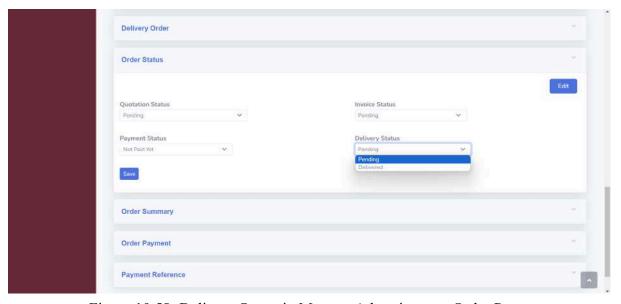


Figure 10.58: Delivery Status in Manage Advertisement Order Page

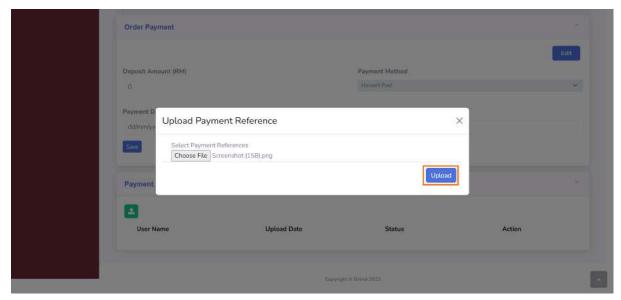


Figure 10.59: Upload Payment Reference in Manage Advertisement Order Page

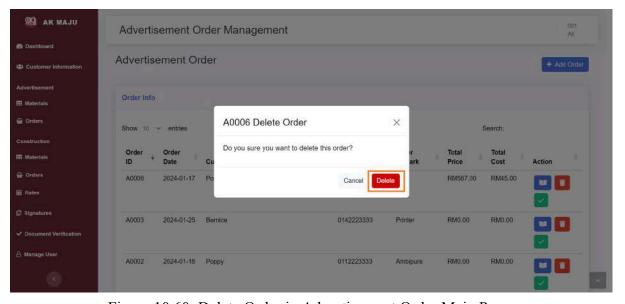


Figure 10.60: Delete Order in Advertisement Order Main Page

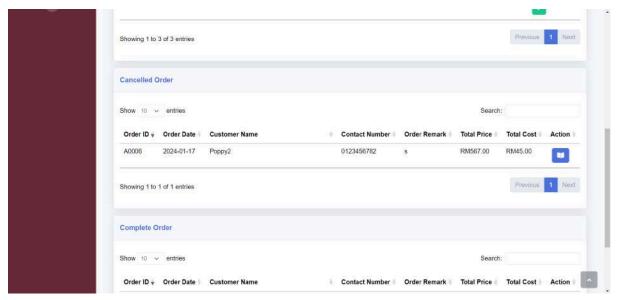


Figure 10.61: Cancelled Order Table in Advertisement Order Main Page

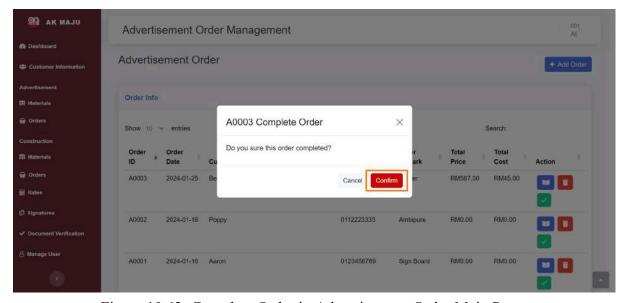


Figure 10.62: Complete Order in Advertisement Order Main Page

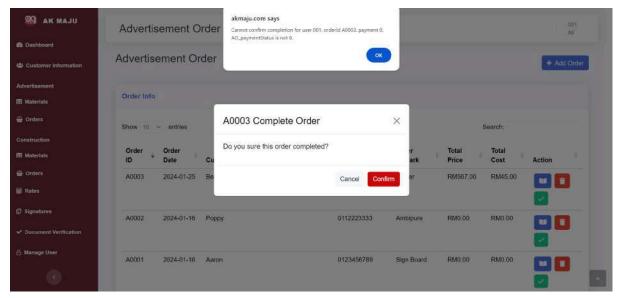


Figure 10.63: Complete Order Error if payment not fully paid in Advertisement Order Main Page

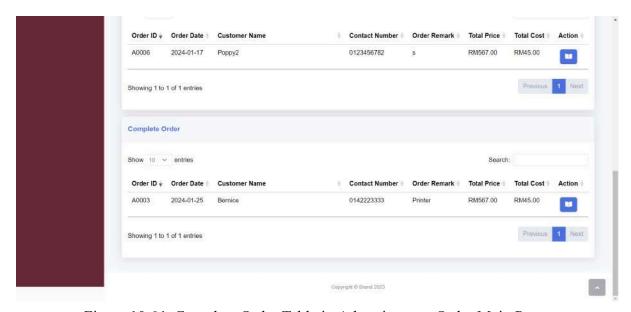


Figure 10.64: Complete Order Table in Advertisement Order Main Page

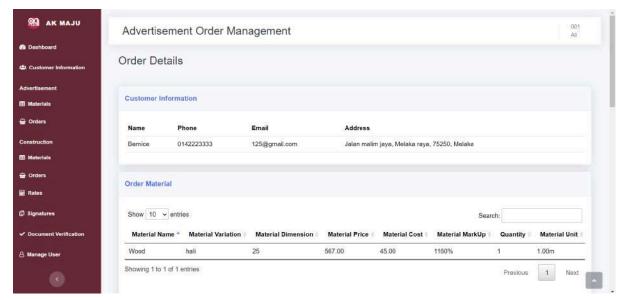


Figure 10.65: Advertisement Order Details Page

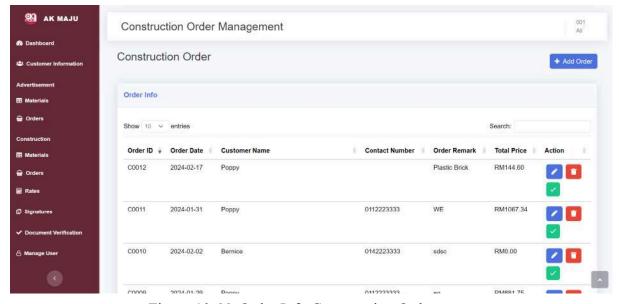


Figure 10.66: Order Info Construction Order page

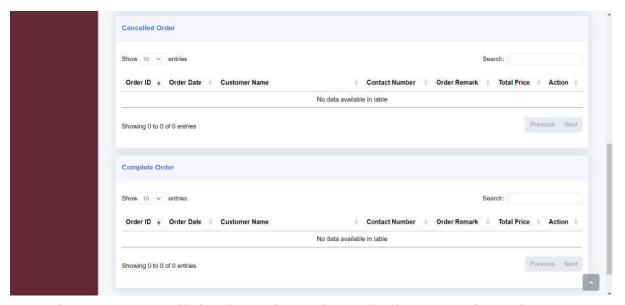


Figure 10.67: Cancelled Orders and Complete Orders in Construction Order page

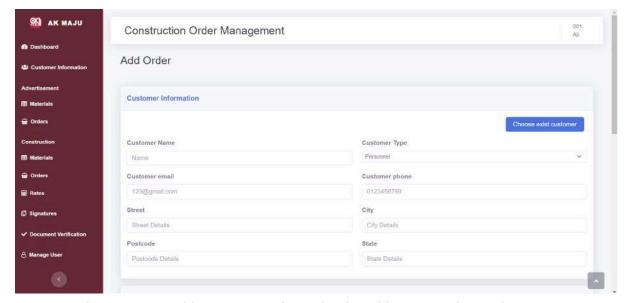


Figure 10.68: Add Customer Information in Add Construction Order page

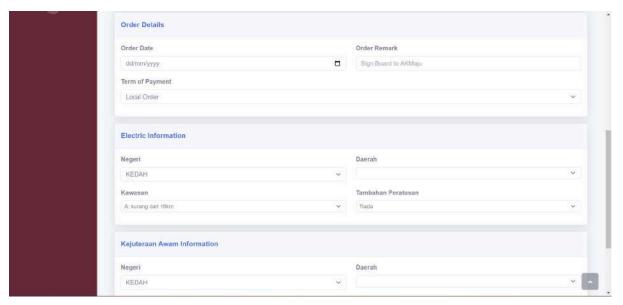


Figure 10.69: Add Order Details in Add Construction Order page

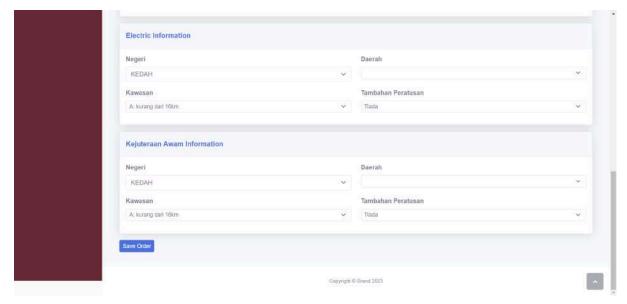


Figure 10.70: Electric and Civil Information in Add Construction Order page

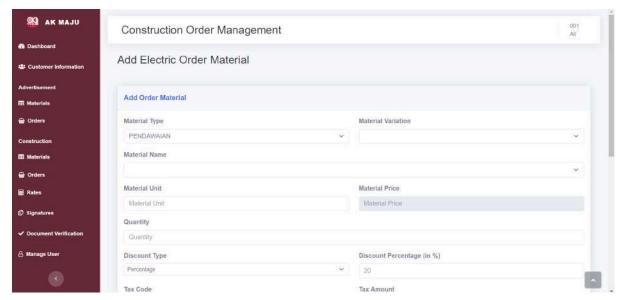


Figure 10.71: Add Electric Order Material in Add Construction Order page

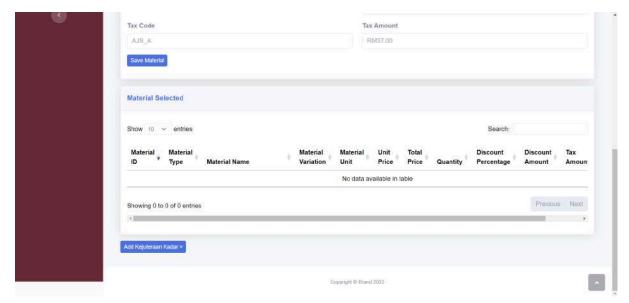


Figure 10.72: Electric Material Selected in Add Construction Order page

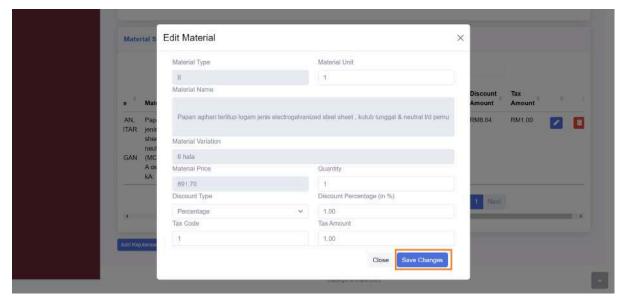


Figure 10.73: Save Changes To Edit Electric Material in Add Construction Order page

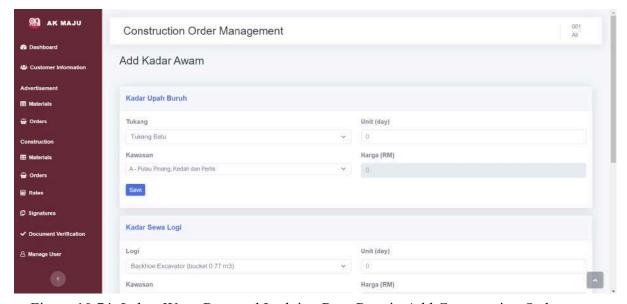


Figure 10.74: Labor Wage Rate and Lodging Rent Rate in Add Construction Order page

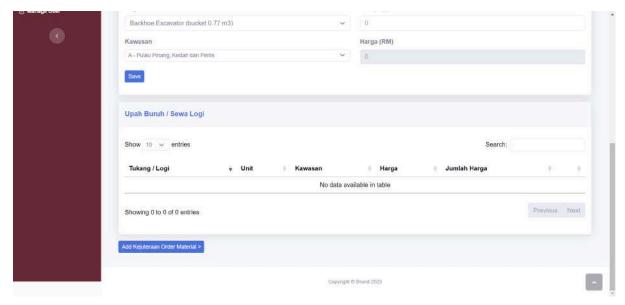


Figure 10.75: Overall Labor Wage and Lodging Rent Rate in Add Construction Order page

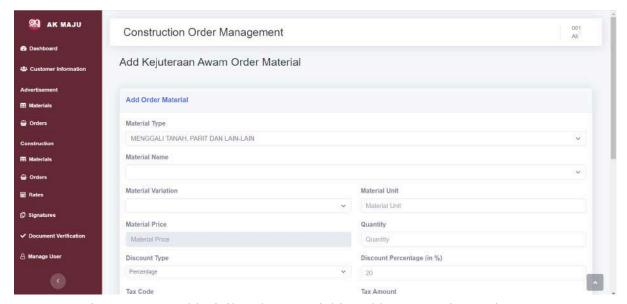


Figure 10.76: Add Civil Order Material in Add Construction Order page

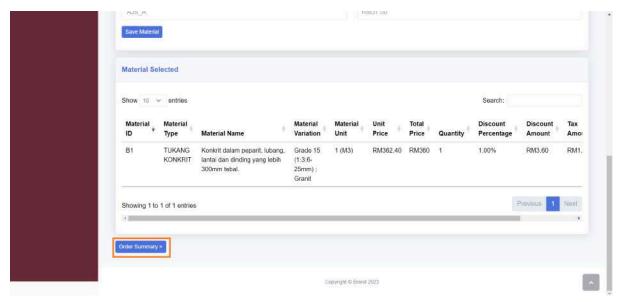


Figure 10.77: Civil Order Material Selected in Add Construction Order page

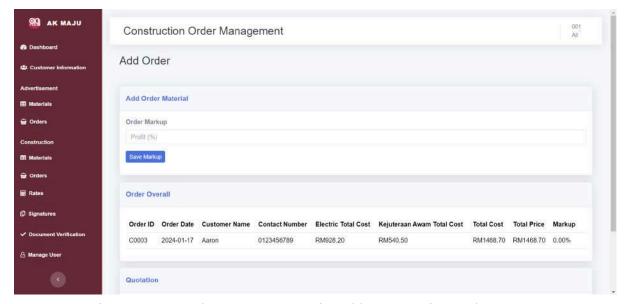


Figure 10.78: Order summary page in Add Construction Order page 1

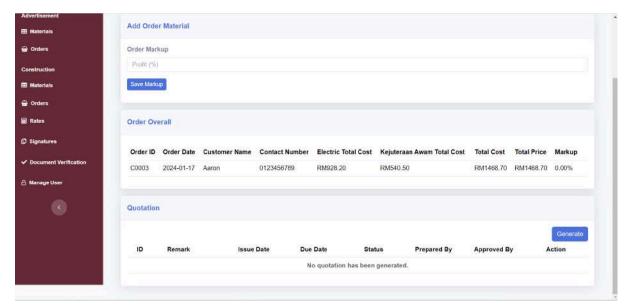


Figure 10.79: Order summary page in Add Construction Order page 2

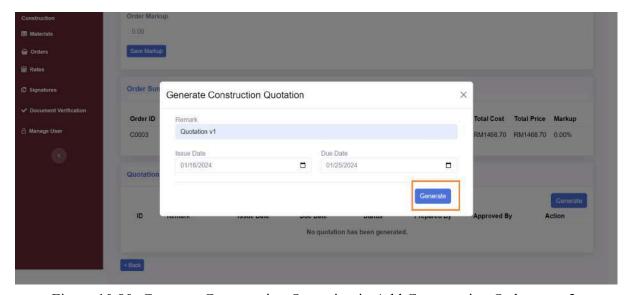


Figure 10.80: Generate Construction Quotation in Add Construction Order page 2

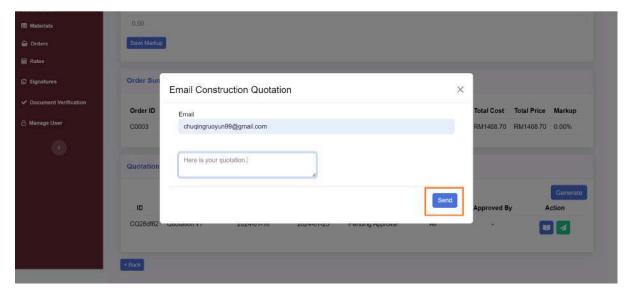


Figure 10.81: Email Construction Quotation in Add Construction Order page 2

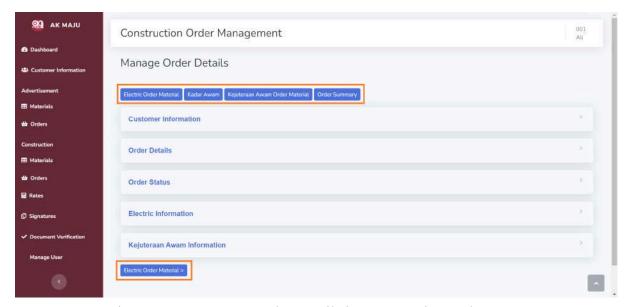


Figure 10.82: Manage Order Details in Construction Order page

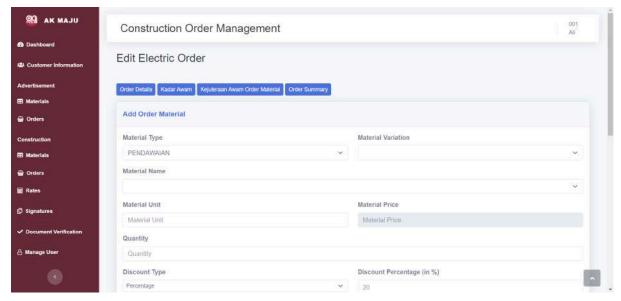


Figure 10.83: Edit Electric Order Material in Construction Order page

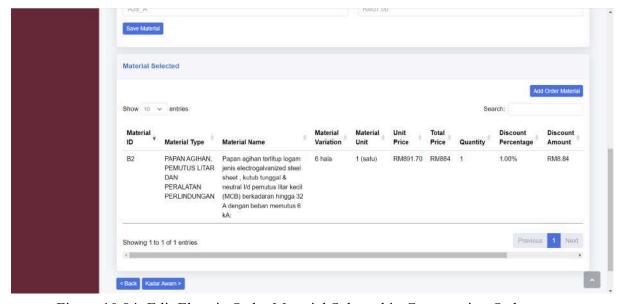


Figure 10.84: Edit Electric Order Material Selected in Construction Order page

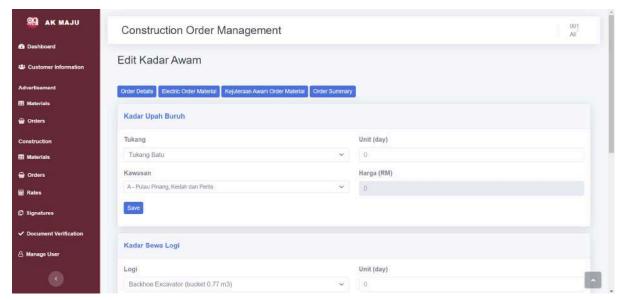


Figure 10.85: Edit Order Salary in Construction Order page

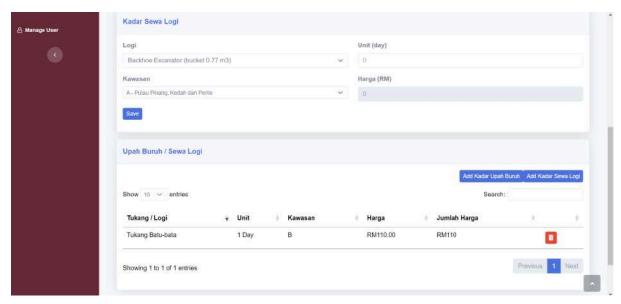


Figure 10.86: View and delete Order Salary in Construction Order page

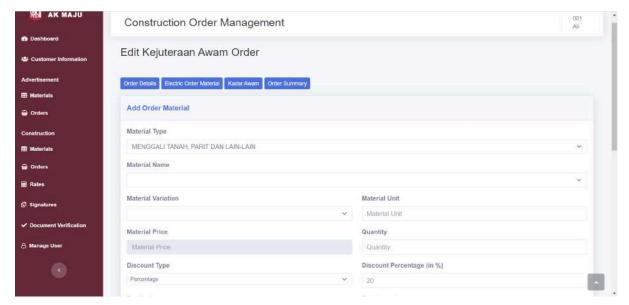


Figure 10.87: Edit Civil Order Material in Construction Order page

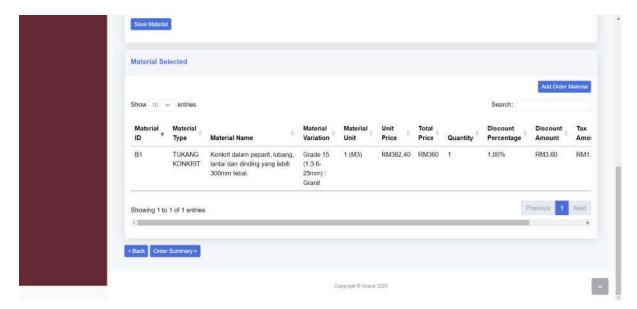


Figure 10.88: Manage Civil Order Material Selected in Edit Construction Order page

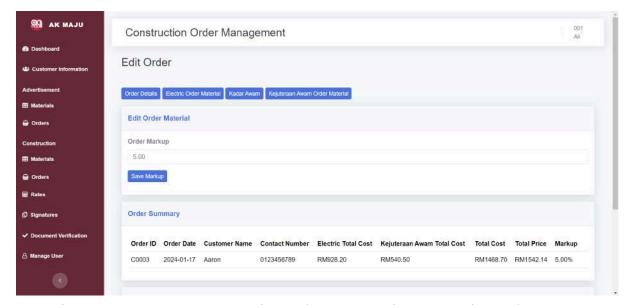


Figure 10.89: Manage Construction Order Summary in Construction Order page 1

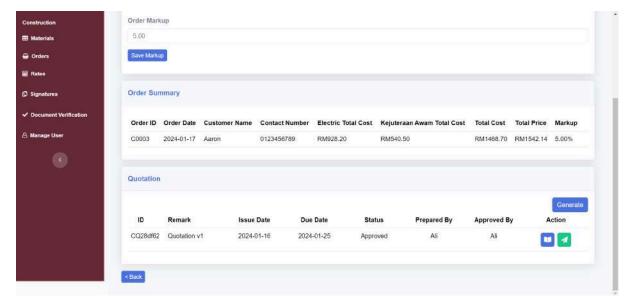


Figure 10.90: Manage Construction Order Summary in Construction Order page 2

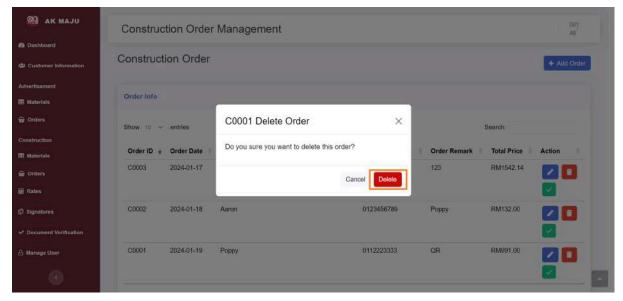


Figure 10.91: Confirm Cancel Order in Construction Order page

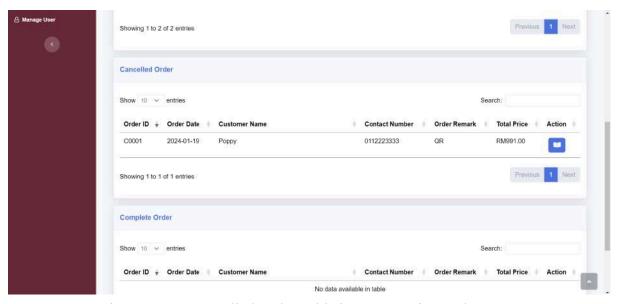


Figure 10.92: Cancelled Order Table in Construction Order page

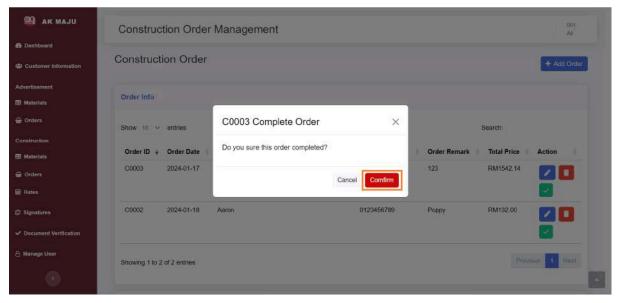


Figure 10.93: Confirm complete order in Construction Order page

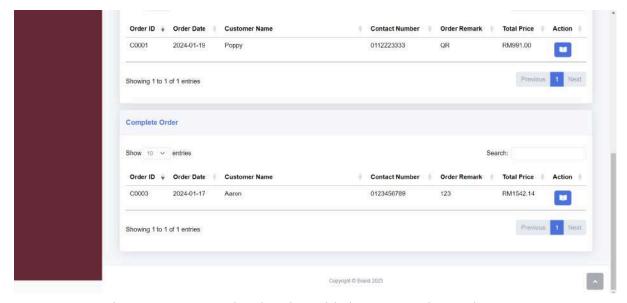


Figure 10.94: Completed Order Table in Construction Order page

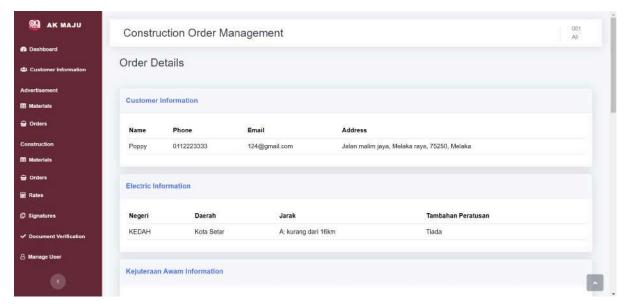


Figure 10.95: View Cancelled and Completed Order in Construction Order page

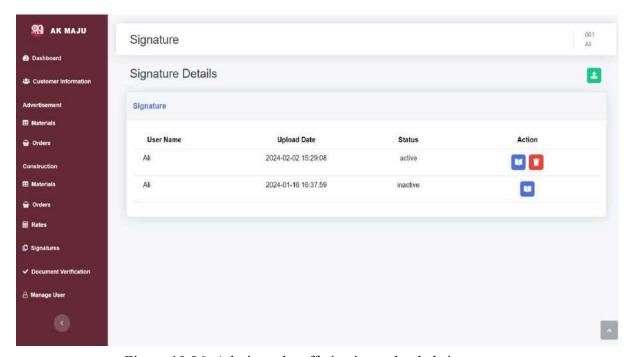


Figure 10.96: Admin and staff viewing uploaded signatures

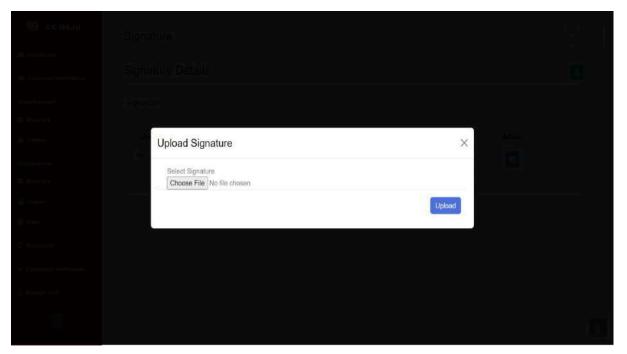


Figure 10.97: Admin and staff uploading signature

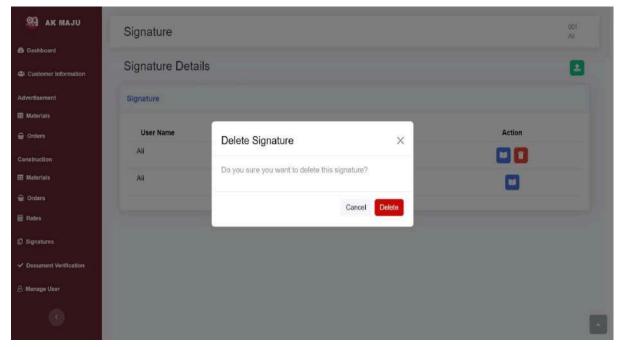


Figure 10.98: Admin and staff deleting signature

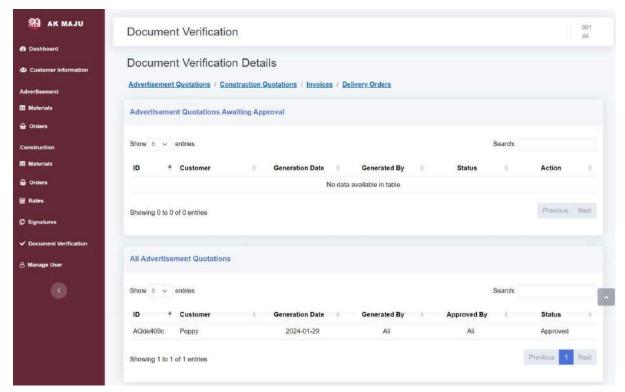


Figure 10.99: Admin viewing generated advertisement quotations

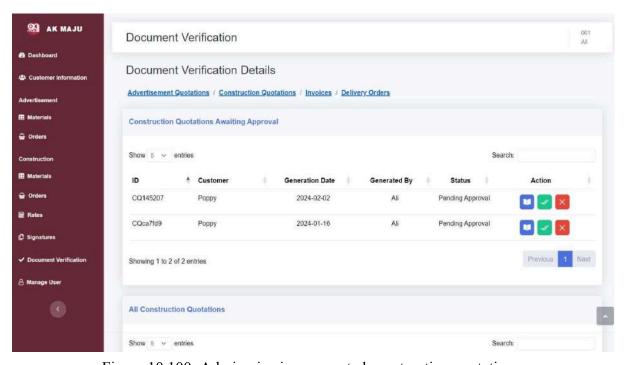


Figure 10.100: Admin viewing generated construction quotations

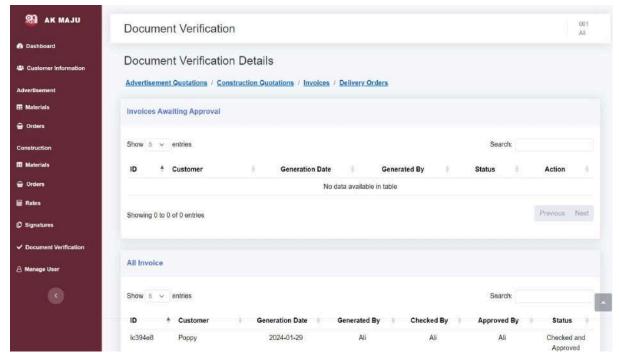


Figure 10.101: Admin viewing generated invoices

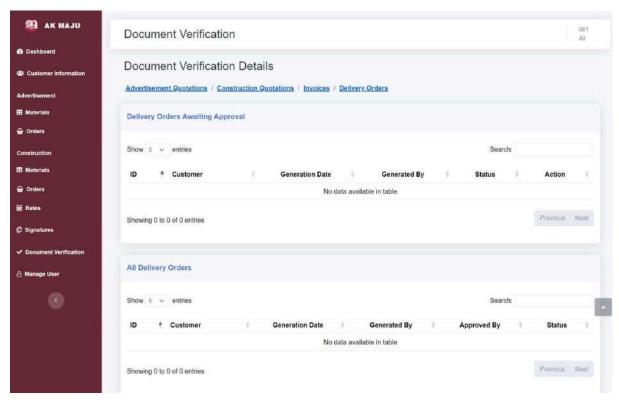


Figure 10.102: Admin viewing generated delivery orders

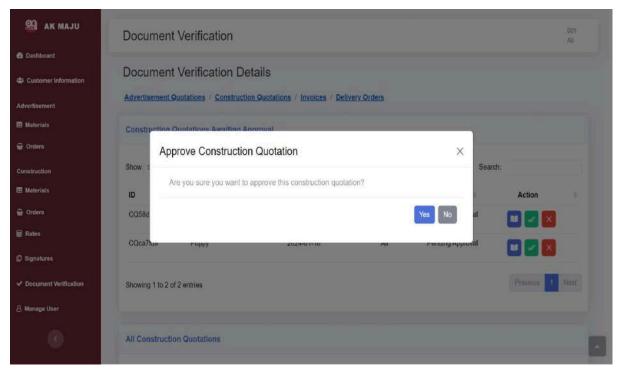


Figure 10.103: Admin approving document

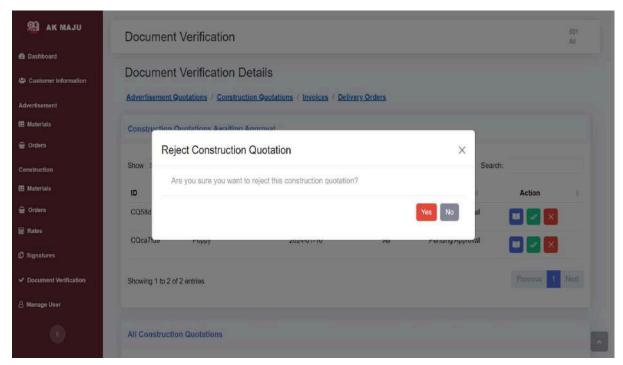


Figure 10.104: Admin rejecting document

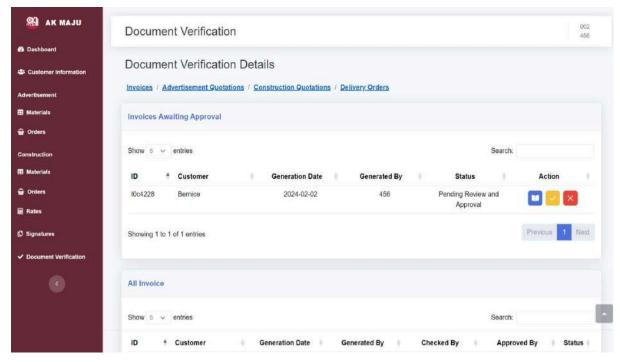


Figure 10.105: Staff viewing generated invoices

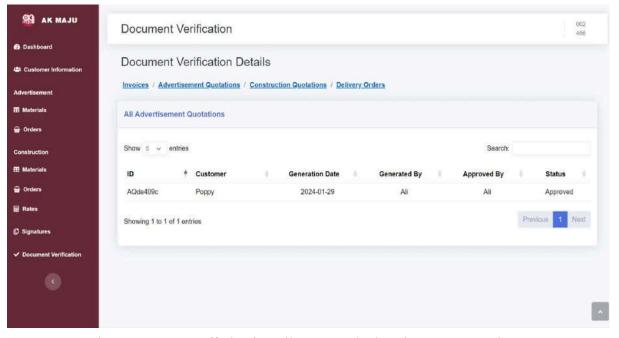


Figure 10.106: Staff viewing all generated advertisement quotations

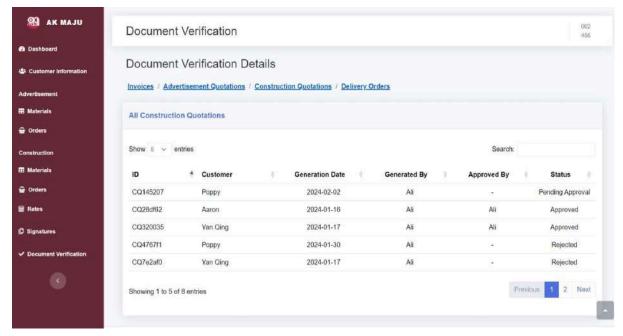


Figure 10.107: Staff viewing all generated construction quotations

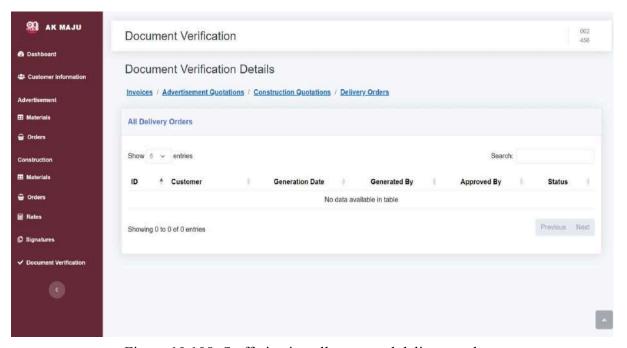


Figure 10.108: Staff viewing all generated delivery orders

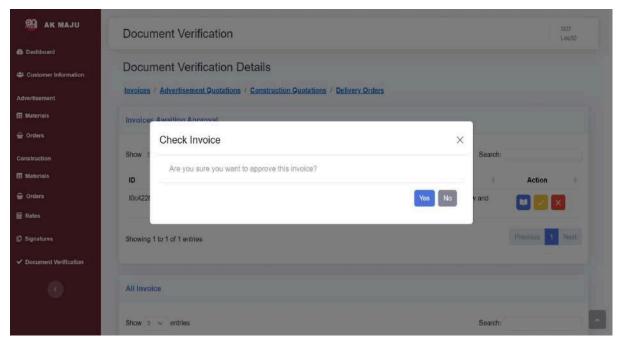


Figure 10.109: Staff checking invoice

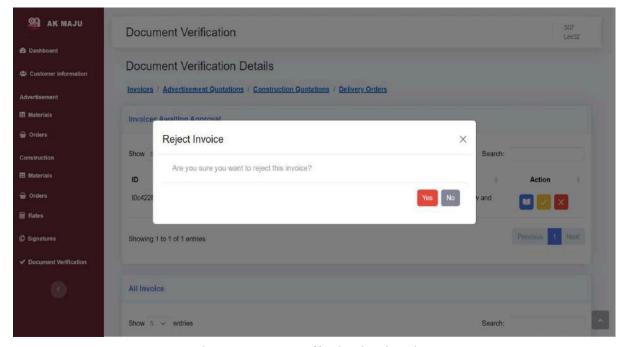


Figure 10.110: Staff rejecting invoice

# 2.11 Alpha and Beta Testing Reports

## **Alpha Testing Report**

1=Very Poor

2=Poor

3=Moderate

4=Good

5=Very Good

## (Insert 'X' in the relevant box)

Requirement	1	2	3	4	5
Login page can function					X
Reset password can function					X
Staff dashboard can view					X
Admin dashboard can view				X	
Monthly report can download and email					X
Low stock alert can function				X	
Customer information can view for staff					X
Customer information can view and export for admin					X
Manage user page can view					X
Add new user can function				X	
Edit user and delete user can function					X
Restore user can function					X
Manage advertisement material type can function				X	
Material advertisement material history can view					X
Add new advertisement material can function					X
Edit and delete advertisement material can function					X
Restore advertisement material can function					X
Manage construction material type can function				X	

Add new construction material can function			X
Edit and delete construction material can function			X
Restore construction material can function			X
Zone and Order rate can view			X
Zone and Order rate can import		X	
Advertisement Order main page can view	X		
Advertisement Order main page can function		X	
Add Advertisement Order can function		X	
Edit Advertisement Order can function			X
Delete and Complete Advertisement Order can function			X
Advertisement Order Details page can view (for Cancelled or Completed Order)			X
Generate advertisement documentation can function			X
Advertisement documentation can view and email			X
Construction Order main page can view	X		
Construction Order main page can function		X	
Add Construction Order can function			X
Edit Construction Order can function			X
Delete and Complete Construction Order can function			X
Construction Order Details page can view (for Cancelled or Completed Order)			X
Generate construction quotation can function			X
Construction quotation can view and email			X
Document in Document Verification page can be view		X	
Document in Document Verification page can be approve			X
Document in Document Verification page can be reject			X
Advertisement Invoice in Document Verification page can be check			X

Signature can be upload, view, delete and restore					X	
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I, hereby <u>GOH JIALE</u>, one of the members of group Algotechies confirm that the AK Maju Business Management System developed by our team has fulfilled the minimum requirements function of the system that was requested by the client which is Encik Azam (CEO AK Maju).

Signature, Date

3/2/2024

(GOH JIALE)

# 2.12 UAT Reports

## **User Acceptance Test (UAT) Report**

1=Very Poor

2=Poor

3=Moderate

4=Good

5=Very Good

# (Insert 'X' in the relevant box)

User Requirement	1	2	3	4	5
Login page can function					X
Cost and price can be auto calculated in advertisement order page					X
Cost can be auto calculated in construction order page					X
Staff dashboard can view					X
Admin dashboard can view				X	
Monthly report can download and email					X
Low stock alert can function				X	
Customer information can view and export for admin					X
Manage user page can function					X
Manage advertisement material can function				X	
Material advertisement material history can view					X
Manage construction civil material can function					X
Manage construction electric material can function					X
Zone and Order rate can view					X
Zone and Order rate can import				X	
Advertisement Order main page can view all orders			X		
Add Advertisement Order can function				X	
Edit Advertisement Order can function					X

Delete and Complete Advertisement Order can function				X
Advertisement Order Details page can view (for Cancelled or Completed Order)				X
Can auto generate advertisement documentation				X
Advertisement documentation can view and email to others such as customer and manager				X
Construction Order main page can view all orders		X		
Add Construction Order can function			X	
Edit Construction Order can function				X
Delete and Complete Construction Order can function				X
Construction Order Details page can view (for Cancelled or Completed Order)				X
Can auto generate construction quotation				X
Construction quotation can view and email to others such as customer and manager				X
Can approve and reject document in Document Verification page			X	
Signature can be upload, view, delete and restore				X
Auto upload signature to documentation can function	 			X

I, hereby <u>Tang Yan Qing</u>, agree that the AK Maju Business Management System developed by our team has fulfilled the minimum requirements function of the system that was requested by the client which is Encik Azam (CEO AK Maju).

Signature.	D .
Vianatura	Date.
SIZHALUIC	17410

(TANG YAN QING)

### 2.13 Gantt Chart

