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CAMPUS OF PUNCAK PERDANA
SHAH ALAM

BACHELOR OF INFORMATION SCIENCE (HONS)
INFORMATION SYSTEM MANAGEMENT

ADVANCED WEB DESIGN AND CONTENT MANAGEMENT
(IMS556)

GROUP ASSIGNMENT:
MY-TENDER

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Above all, we are grateful to Allah SWT for giving us the opportunity to finish this task. Alhamdulillah and appreciation to Almighty for granting us the strength and patience to complete this group work. We want to take this time to express our sincere gratitude and appreciation to Dr. Muhammad Asyraf bin Wahi Anuar, our beloved instructor in IMS556 Advanced Web Design and Content Management, who gave us invaluable information, ideas, and direction. There are no words to describe our sincere gratitude for his constant support and commitment in giving up his precious time to ensure that we could finish this report.

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1.0 INTRODUCTION (BRIEF OVERVIEW OF THE APPLICATION)

MY-TENDER is a web-based e-Procurement Management System developed specifically for Universiti Teknologi MARA (UiTM) with the objective of transforming the traditional tender management process into a structured digital workflow. In many organizations, tender submission and evaluation processes are often managed manually or semi-digitally, resulting in inefficiencies such as delayed approval cycles, difficulty in monitoring vendor performance, and lack of centralized data management. These limitations may lead to poor documentation control and reduced transparency in decision-making processes.

To address these challenges, MY-TENDER was developed using the CakePHP 5 framework with a MySQL relational database backend. The system centralizes tender creation, vendor registration, application submission, review processes, and performance analytics into a single platform. By implementing structured workflows, role-based access control, and integrated analytics dashboards, MY-TENDER aims to provide UiTM with a scalable and maintainable procurement management solution.

Beyond its academic purpose, the system reflects a real-world implementation of enterprise-level web application development principles. It demonstrates structured database modeling, MVC architecture implementation, CRUD functionality, search mechanisms, and analytical reporting tools.

Key Highlights of the System:

- Web-based procurement management platform
- Developed using CakePHP MVC framework
- Integrated CRUD operations for all main modules
- Advanced search and filtering capability
- Real-time analytics dashboard
- Role-Based Access Control (RBAC)
- Audit trail logging for transparency

2.0 MY TENDER ZIP FILE LINK

https://github.com/mrfiqqq9/My-Tender

3.0 ERD

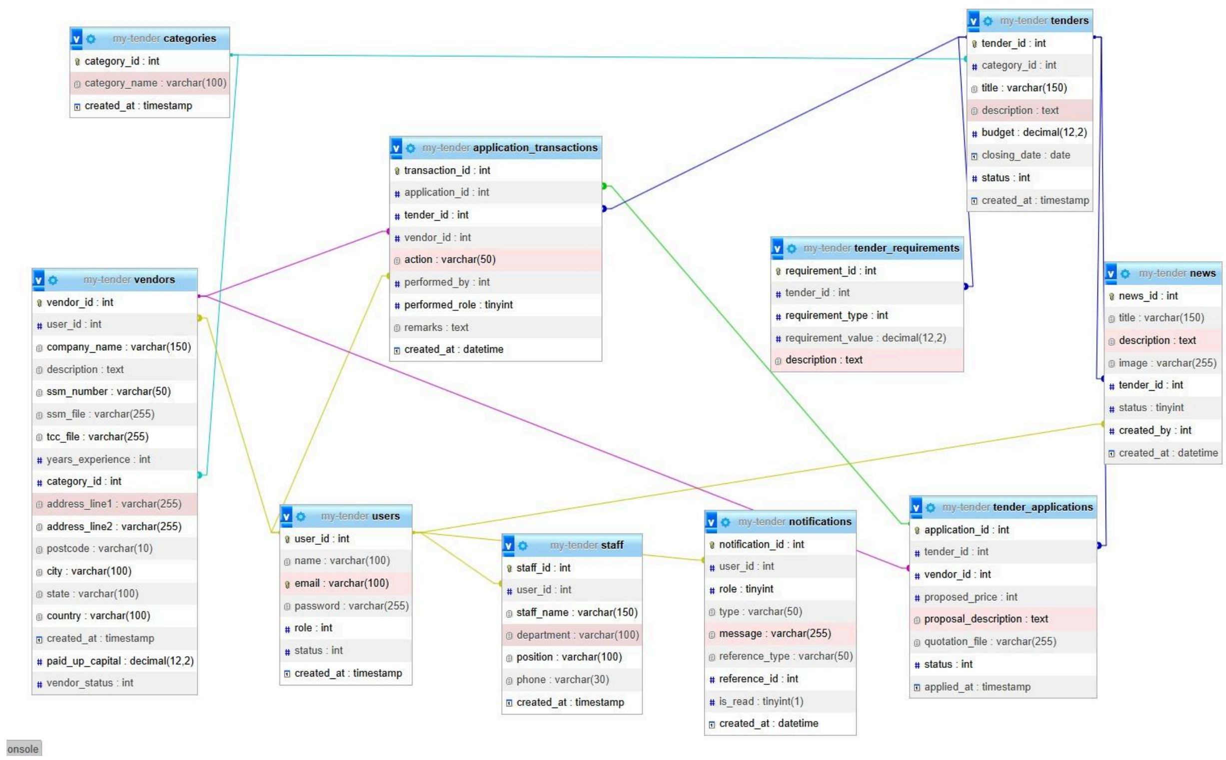

Figure 1: ERD for MT-TENDER system

4.0 SYSTEM ARCHITECTURE

MY-TENDER implements the Model-View-Controller (MVC) architecture provided by CakePHP. This architectural pattern enhances maintainability and scalability by separating concerns within the application.

The Model layer manages database interactions and enforces data validation rules. It defines relationships such as one-to-many connections between vendors and applications, as well as tenders and requirements.

The View layer is responsible for rendering user interfaces. The system uses Bootstrap to create a responsive layout, ensuring usability across various screen sizes. Role-based rendering ensures that users only see features relevant to their responsibilities.

The Controller layer processes user requests and manages workflow logic. It handles CRUD operations, search queries, approval decisions, and access control enforcement.

Architectural Features:

- MVC-based modular structure
- Separation of business logic and presentation
- Relational database integration
- Role-based interface rendering
- Scalable module expansion

5.0 SYSTEM REQUIREMENTS

To run the **MY-TENDER** system smoothly, ensure your development environment meets the following minimum requirements:

1. PHP 8.1 or above

   PHP will be the primary scripting language used in the application's backend logic. To be compatible with the latest features and security updates, 8.1 or later is the recommended version to use. Laragon facilitates the use of PHP in this project, which simplifies the setup procedure.

2. CakePHP Framework

   A free web framework that follows the Model-View-Controller (MVC) architecture is called CakePHP. It facilitates a rapid turnaround time, code organisation, and built-in features like routing, database access, authentication, and the creation of scalable and maintainable applications.

3. MySQL

   Application data is stored, retrieved, and managed using MySQL, a relational database management system (RDBMS). It has SQL queries that are an integral part of the system's data operations and optimises data processing.

4. Laragon

   A powerful local development called Laragon is used to run the application locally. It provides a single package that developers can use to start and run projects by bundling together other essential services like Apache, MySQL, and PHP.

5. phpMyAdmin

   A web interface for managing MySQL databases is called phpMyAdmin. With the help of its graphical user interface, developers can create tables, run queries, and work with database records without having to use command-line tools.

6. Composer

   Composer is a dependency manager that installs and maintains the libraries required by the CakePHP framework using PHP. It is appropriate for testing and debugging throughout development since it offers developer tools and a high degree of support for contemporary web standards.

7. Google Chrome

   Google Chrome should be used to test the web application. It is appropriate for testing and debugging throughout development since it offers developer tools and a high degree of support for contemporary web standards.

6.0 INSTALLATION AND SETUP INSTRUCTIONS

Step 1: Download the ZIP file from the Google drive.

- The ZIP file of the system needs to be downloaded first before proceeding the installation. The ZIP file can be downloaded from this link https://github.com/mrfiqqq9/My-Tender

Step 2: Put the Project in the www Folder of Laragon.

- Once downloaded, extract the project folder and put it into the root directory of Laragon at the following location: C:\laragon\www
  And created folder with name my-tender, the url will be like this C:\laragon\www\my-tender
- This enables Laragon to identify and run the application locally.

Step 3: Dependencies Installation with Composer.

- To install all required dependencies, launch a terminal window in the project folder and type the following command: Installing Composer
- The necessary CakePHP packages and plugins for the application's operation will be installed by this command.

Step 4: Install the Database

- In order to make the database ready:
  1. Open the phpMyAdmin using Laragon.
  2. Then make a new database my-tender.
  3. Insert the given SQL (my-tender (6).sql) into the newly created database.

Step 5: Setting CakePHP Database

- Go to the configuration file in config/app_local.php and edit the ‘Datasources’ section to the following settings:
  ‘username’ => ‘root’,
  ‘password’ => ‘ ’,
  ‘database’ => ‘my-tender’

Step 6: Execute the Project on Laragon

- Launch Laragon and make sure that Apache and MySQL services are running.
- Go to a web browser and navigate to: http://localhost/my-tender/login

  This will load the Home Page of MY-TENDER.

Step 7: Login into the MY-TENDER

- You can login using admin login (Admin@uitm.com, 12345)
- You can also login using staff login (hazim1@uitm.com, 123456)
- You also can login using staff login (hanafi@gmail.com, 12345)

7.0 FEATURES AND FUNCTIONALITIES

Authentication

The system includes a secure login and logout process that ensures only registered users can access the platform. Users are assigned roles upon account creation, such as vendor or admin, which dictates their level of access within the system. Admins have elevated permissions to manage other users and system settings, while regular users can access only their personal dashboard and application records. The foundation for email verification is also in place for potential expansion to two-step authentication or password recovery.

Vendor Module

Vendors can log in and easily apply for offered tender through a simple online form. The application allows them to select the offered tender, specify the budget, check the tender requirements, view and update vendor profile, and view tender and profit analytics. After submission, vendors can monitor the status of their applications—whether pending, approved, or rejected—directly from their dashboard. This self-service module reduces dependency on manual processes and improves communication efficiency.

Admin Module

Administrators have access to a centralized dashboard where they can view all tender applications submitted by vendors. For each application, they can review details, approve or reject it. This module also enables admins to manage new tender, review tender applications, adjust tender requirements and analyze the vendors performance to put trust on. The role-based control ensures that only authorized personnel can perform these sensitive actions.

Staff Module

Staff have access to review the applications by vendors, make decision either approve or reject the application and create a new open tender to the vendor. This module also enables admins to manage new tender, review tender applications, adjust tender requirements and analyze the vendors performance to put trust on. The role-based control ensures that only authorized personnel can perform these sensitive actions.

Tender Application Management

MY-TENDER handles tender applications based on structured data, linking each request to an offered tender and vendor profile. Vendors can review the tender requirements before applying, it is because vendors need to review the requirements and budget for the tender so they can apply the tender that meets their satisfaction, budget and requirements. The system keeps a complete record of tender applications, ensuring transparency and consistency in tracking.

8.0 USER INTERFACE OVERVIEW

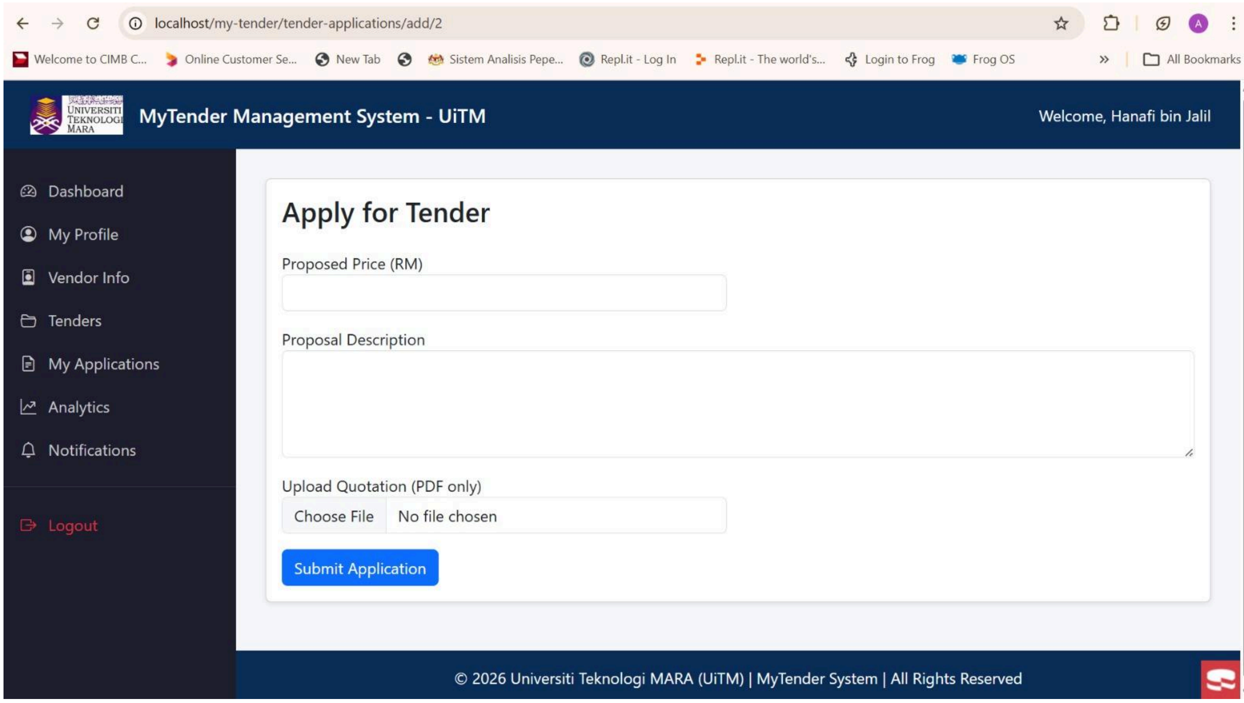

Figure 2: Application form for vendor to apply the tender

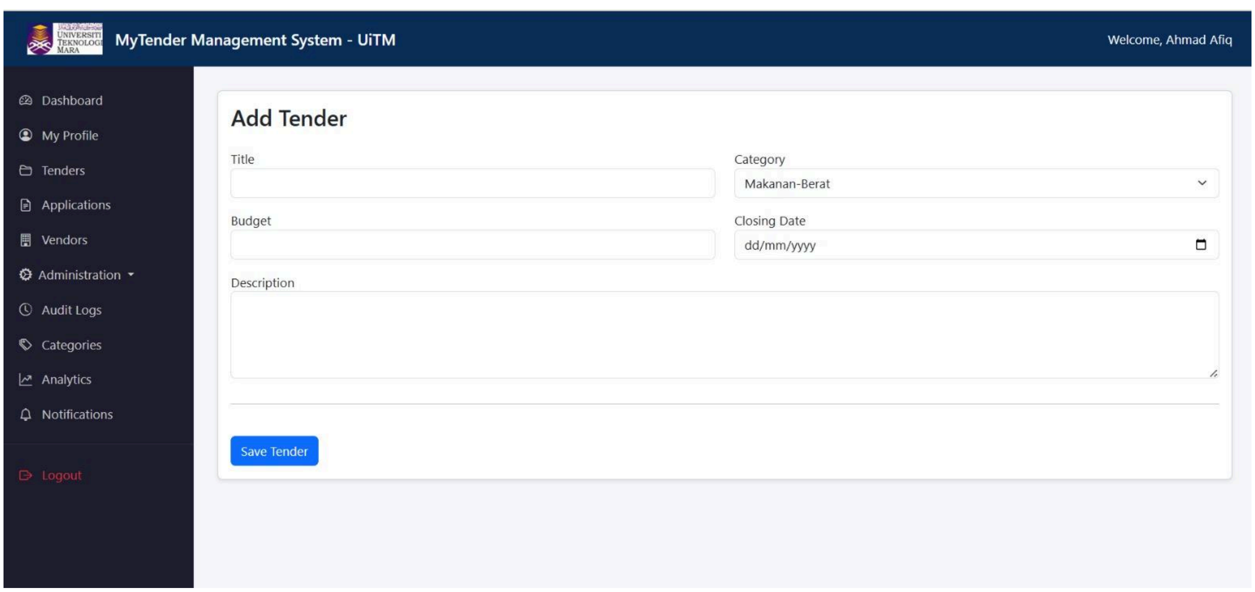

Figure 3: Form for new tender to be created by staff

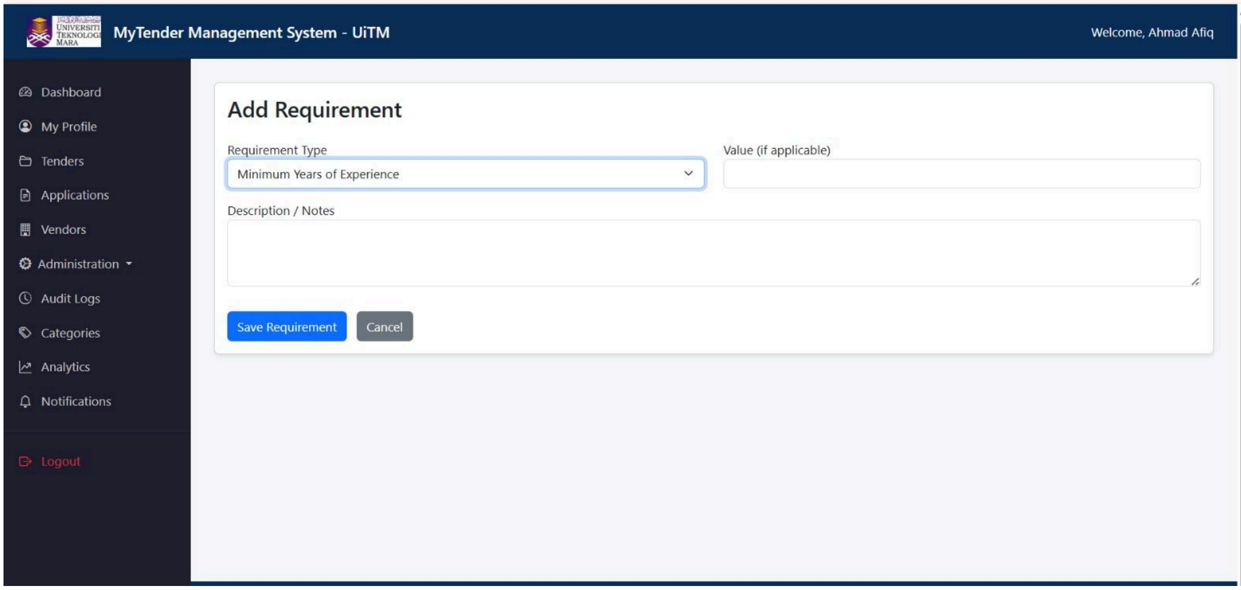

Figure 4: Requirement form for staff/admin to insert the requirement for the tender

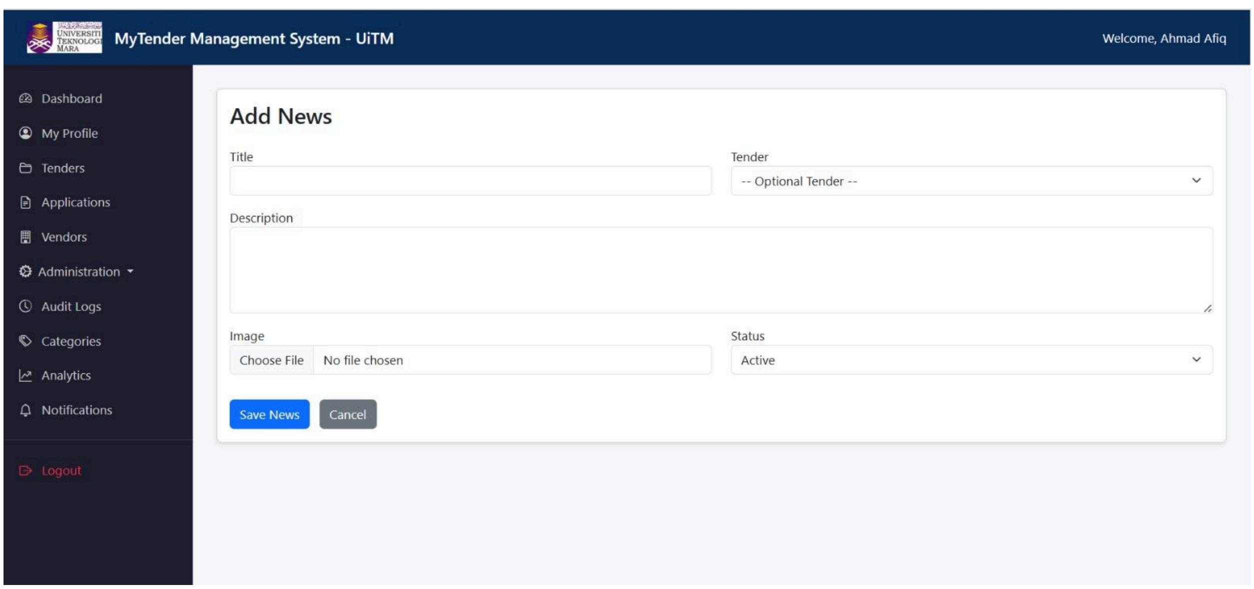

Figure 5: News form for staff and admin to promote the tenders through the website

8.0 NAVIGATION GUIDE

The MY-TENDER is designed with intuitive navigation that adjusts according to the user's role—either as a vendor or an administrator. This ensures users can access only the relevant modules and features based on their responsibilities.

Page/Section	Navigation
Login and Role-Based Redirection	After accessing the application via the browser (e.g., http://localhost/my-tender/login), users are prompted to log in using their email and password. Upon successful login: Vendors are redirected to the vendor dashboard, which focuses on tender application and status tracking. Administrators are taken to the admin dashboard, which includes additional tools like approvals, tender management, tender application to be reivew and new tender to create.
Main Menu/ Sidebar	The system's primary navigation is structured through a sidebar menu (or top navigation bar, depending on screen size), containing clearly labeled links with icons. Key navigation items include: Dashboard – Overview panel with role-specific summaries Tender Application / My Applications – Submit and review tender applications Approvals – For admins to view and act on pending tender applications Users / Vendors – Admin access to manage system users and vendor records Audit Trail – View system logs for transparency and tracking

	System Settings – Admin-only configuration tools for branding, notifications, and integration settings
Quick Access Buttons	Throughout the system, users will find contextual buttons for quick actions. Examples include: “Apply Tender” button in the employee dashboard “Approve” / “Reject” buttons on each application row for admins “Add New Tender” in the admin dashboard
User Profile and Logout	In the top-right corner of the interface, users can access their profile dropdown. From there, they can: Log out securely (Optional future feature: Edit profile/password)

9.0 WORKFLOWS OF SPECIFIC FORM (APPLICATION)

The tender applications process is the core workflow of the MY-TENDER. It follows a clear and structured path from submission to administrative decision-making, ensuring transparency, accountability, and efficiency.

Step 1: Vendor Submits Tender Application

The process begins when a logged-in vendor navigates to the "Tender List" page via the sidebar or dashboard. The form prompts the vendor to:

- Select a Tender
- Review the requirements and budget
- Apply for the tender if their budget and requirements meets the tender needs

Step 2: Admin/Staff Reviews the Application

An administrator logs into the system and navigates to the "Approvals" section, where all pending applications are listed. Each record includes details like the vendor's name, vendor's record, vendor's performance and the tender that the vendor applied. Admins can click into each application for a full view or use filters to narrow down results by status or date.

For each request, the admin has two primary options:

- Approve – Changes the application's status to "Approved" and the applications will appear as Approved by the vendor.

- Rejected – Marks the request as "Rejected" and the applications will appear as Rejected by the vendor.

Actions are recorded with timestamps and associated admin user IDs for auditing purposes.

Step 3: Vendor Views Status

Once a decision is made, the vendor receives an update on their **dashboard** or under the **"My Applications"** section. Each application record now displays its status:

- ✅ Approved
- ❌ Rejected

Step 4: Data Logged for Audit

Every action—submission, approval, rejection—is automatically logged using the AuditStash plugin. This ensures that the system maintains a history of all changes for review or dispute resolution. These logs are viewable by system admins in the "Audit Trail" section.

10.0 DETAILED INSTRUCTIONS ON HOW TO USE EACH FEATURE

The MY-TENDER provides a secure and structured login system that authenticates users based on their assigned roles. After logging in, vendors and administrators are directed to their respective dashboards. Logging out is quick and accessible through the top-right user menu, ensuring sessions are closed securely. Navigation throughout the system is intuitive, with clear menus and labeled icons for fast access to all modules.

For vendors, the core functionality revolves around applying for tenders. They can fill out the applications after reviewing the requirements and budgets needed for the tender. Submitted applications appear in the “My Applications” section where users can monitor approval status updates in real time. The system ensures vendors have complete visibility over their application history, reducing the need for manual inquiries or follow-ups.

Administrators manage the approval workflow by reviewing pending tender applications in a dedicated “Applications list” section. With the ability to approve or reject applications, they ensure that each decision is traceable and justified. Admins also oversee system data such as user accounts, vendor profile, and analytics. They can create or edit user profiles, assign roles, manage tender to be created or existing tender, and access audit trails to review system activity for compliance and transparency.

Additional tools like advanced search, data filtering, and audit logs empower both vendors and admins to quickly locate relevant records. Admins can also configure system-wide settings such as organization metadata, system notices, and feature toggles through the settings module. Overall, MY-TENDER is designed to be both powerful and user-friendly, ensuring that all features are accessible with minimal training.

11.0 CONTACT INFORMATION FOR SUPPORT

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12.0 CONCLUSION

MY-TENDER successfully provides UiTM with a structured and centralized e-Procurement management platform. Through MVC architecture, CRUD implementation, search functionality, analytics dashboards, audit logging, and secure authentication mechanisms, the system demonstrates practical application of modern web development standards.

Although certain advanced features remain for future enhancement, the core modules operate efficiently and provide a scalable foundation for institutional implementation.