TECHNOLOGICAL UNIVERSITY OF THE PHILIPPINES TAGUIG CAMPUS Bachelor of Technical Vocational Teacher Education Basic Arts and Sciences Department	**System Architecture Diagram**
ITSD220-T – System Analysis and Design	**Output 12**

PROJECT NAME	Angry Octopus Appointment System		
CLIENT	Taguig City		
DURATION	6 Months		
START DATE	09/19/23	**END DATE**	03/31/24
DESCRIPTION			

The “Angry Octopus Appointment System” is a web application designed to streamline the process of booking and managing appointments for franchise businesses. This system will allow franchise managers to schedule and track appointments efficiently, providing a user-friendly interface for both staff and clients. The system will include features such as appointment scheduling, notifications, and customer management.

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PRESENTATION LAYER

COMPONENTS

- **User Interface Design (UI):** It is creating visually appealing and intuitive elements like buttons, forms, and menus for user interaction.
- **Responsive Design:** To ensure the application looks and functions well across various devices using flexible layouts and CSS media queries.
- **Front- End Development (HTML, CSS, JAVA SCRIPT):** The application's visual and interactive aspects using HTML for structure, CSS for styling, and JavaScript for functionality.
- **User Authentication (Login, Registration,):** This implements secure login and registration forms, validate credentials, and manage user sessions.
- **Dashboard and Reporting Interface:** It provide graphical representations and real-time updates of key metrics for users to customize and view.

PPLICATION LAYER

COMPONENTS

- **Appointment and Scheduling:** It is the manage the creation, modification, and cancellation of appointments, including reminders and calendar integration.
- **Notification System:** To send alerts and reminders about important events via email, SMS, or in-app messages
- **Customer and Management System:** Manage customer data and interactions, including adding, updating, and deleting records.
- **Access Control and Permissions:** This helps to define user roles and permissions to ensure secure access to different parts of the application.

DATA LAYER

COMPONENTS

- **Database Design (MySQL):** Structure the database to store and retrieve data efficiently with well-defined tables, columns, and relationships.
- **Data Storage for Appointments and Customers:** It accurately records and organizes appointments and customer data for easy access and functionality support.
- **Backup and Recovery:** Implement automated backup schedules and secure storage for data recovery in case of loss or corruption.
- **Data Security Encryption:** Encrypt data at rest and in transit to protect sensitive information from unauthorized access.
- **API Integration for External Services Angry Octopus Appointment System:** This integrates with third-party APIs for additional functionality, such as payment processing and email services

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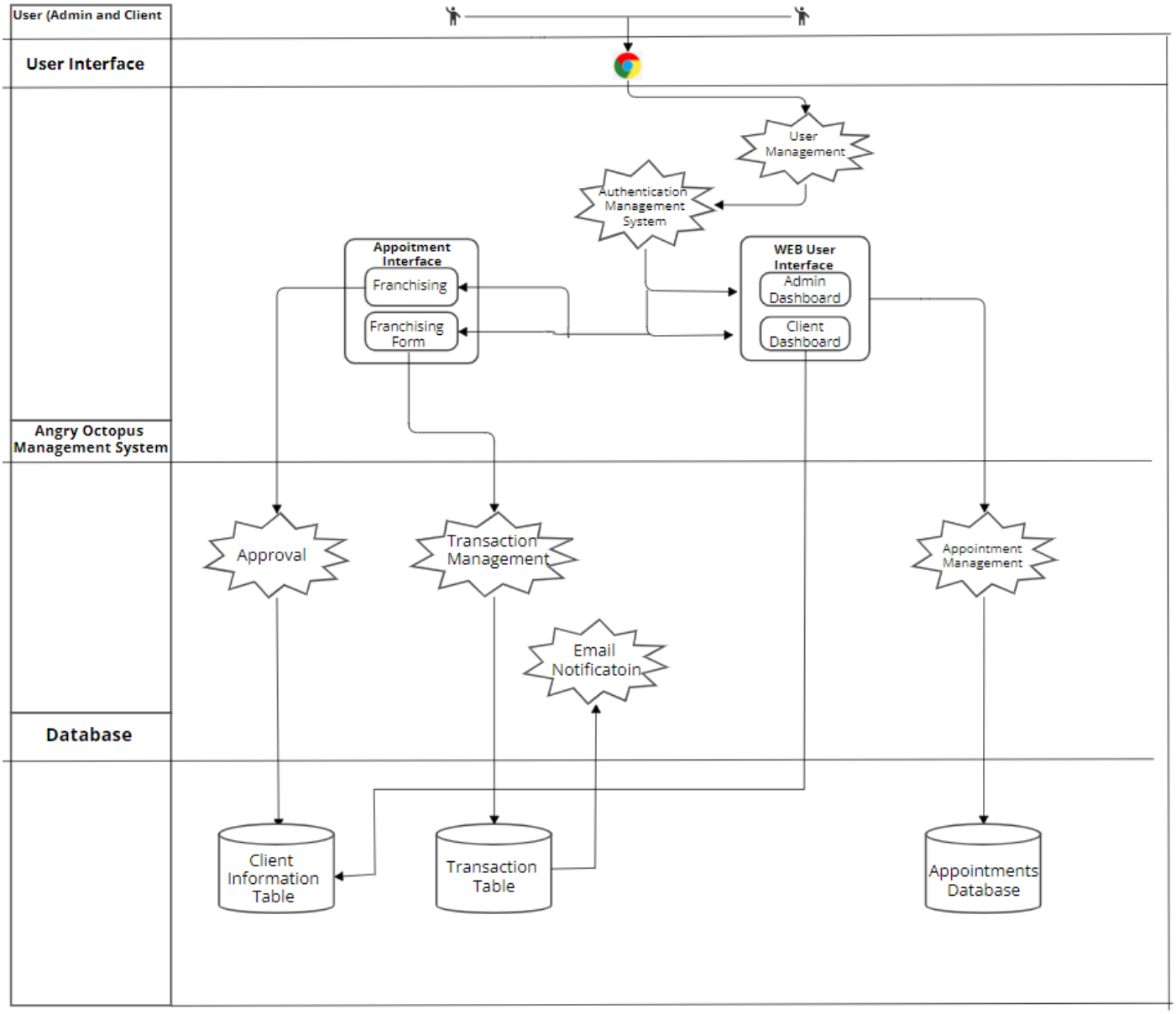

The diagram above shows the architectural structure of the Angry Octopus Appointment System that will be created. It explains how all user types will interact with the system, starting from the components presented the system is structured in three primary layers: User Interface, Management System, and Database. At the top, the User Interface layer provides access through a web browser, featuring an Appointment Interface with franchising components and a Web User Interface with separate dashboards for admins and clients. These interfaces are supported by Authentication and User Management systems. The core Angry Octopus Management System layer contains modules for Approval, Transaction Management, Appointment Management, and Email Notification, serving as the operational backbone of the platform. These modules interact with both the user interfaces above and the databases below. The Database layer at the bottom consists of three main tables: Client Information, Transaction, and Appointments, each corresponding to specific management functions in the system. This layered architecture facilitates the flow of data from user inputs through processing systems and into storage, enabling efficient management of client relationships, appointments, and business transactions within a single integrated platform.