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Software Engineering-2

Logistics Dashboard

Title:

**Taswiq**(order Management System)

Description:

The Order Management System is designed to facilitate order creation and management for an organization. It allows users with different roles (admin, assistants, shipping companies) to perform specific actions related to orders and user management.

Functional Requirements:

1. User Management:

- Admin can add, edit, and delete user accounts (assistants, shipping companies).

- Assistants can log in, create orders, and view their own order history.

- Shipping companies can log in and view orders assigned to them.

2. Order Management:

- Admin can create, edit, and delete orders.

- Assistants can create orders and view their own order history.

- Shipping companies can view orders assigned to them.

3. Authentication:

- Users (admin, assistants, shipping companies) can log in using their username and password.

- Authentication checks are performed against the database.

4. Order Extraction:

- Assistants can receive orders via Instagram or Facebook.

- Assistants can extract order information (product, quantity, customer details, creation date) from received orders.

5. User Roles and Permissions:

- Admin has full access to user management and order management functionalities.

- Assistants can create orders and view their own orders.

- Shipping companies can view orders assigned to them.

Non-functional Requirements:

1. Security:

- Authentication and authorization mechanisms ensure data security.

- Data encryption for sensitive information (e.g., passwords, customer details).

2. Performance:

- System should handle multiple concurrent users efficiently.

- Orders and user data retrieval should be fast and responsive.

3. Scalability:

- System should be scalable to accommodate growing data and user base.

- Load balancing mechanisms for distributed deployment.

4. User Experience:

- Intuitive user interface for ease of use.

- Notifications for new orders and order status updates.

5. Reliability:

- System should be available and reliable with minimal downtime.

- Backup and recovery mechanisms for data protection.

Scope:

The scope of the application includes user management, order management, authentication, order extraction, and defining user roles and permissions. It covers the core functionalities required for efficient order processing within the organization.

Architecture:

The application can be built using a layered architecture, such as:

- Presentation Layer: User interface for interacting with the system (web interface or mobile app).

- Application Layer: Business logic and workflows for user management, order management, and authentication.

- Data Layer: Database for storing user data, order information, and authentication credentials.

- Integration Layer: Interfaces for receiving orders via Instagram or Facebook, integrating with external systems if needed.

The architecture is scalable, secure, and maintainable, utilizing Spring Boot for backend development, Angular for the frontend, and a relational database management system MySQL for data storage.