

Insurance System Documentation

1. Introduction

This documentation describes the Insurance Management System. The application facilitates managing clients, insurance policies, employees, and other related entities. It provides role-based access for various users, such as clients, employees, and administrators, enabling tasks related to record-keeping and insurance management.

2. Project Structure

The project is organized into the following components:

- **GUI**: Contains forms and the main application window.
- **Logic Layer**: Contains classes for processing data and application logic.
- **Database Layer**: Includes the `DatabaseConnection` class for data operations.

This modular structure ensures the application is maintainable and extensible.

3. Technology Stack

- .NET Framework (Version 8.0), with WinForms for GUI development.
- C# as the primary programming language.
- Classes for managing database connections and business logic.
- Modular approach to system design.

4. Main Classes and Responsibilities

Key classes and their responsibilities include:

- **User**: Represents application users, storing credentials and user information.
- **DatabaseConnection**: Manages interactions with the database.
- **Form1**: Implements the main user interface.

Each class is designed to handle specific functionalities such as user authentication, data retrieval, and display within forms.

5. Usage Guide

To run the application, ensure the .NET runtime is installed on your system. Launch the application to access the login screen, where users can either sign in or register. Upon logging in, users can perform role-specific tasks, such as managing clients, insurance policies, or employees, depending on their access level.

6. Future Extensions and Maintenance

To enhance the application, consider the following:

- Adding support for additional roles and permissions.
- Enhancing the database layer to support more complex queries.
- Improving the user interface for better usability and accessibility.
- Implementing additional security features to protect sensitive data.