Sky Stone Certificate Generation System Documentation.

**Overview**

Sky Stone is a Java-based application designed to generate personalized certificates and manage user authentication and registration. The system supports different types of user accounts (personal, business, and business plus), each offering varied functionalities ranging from generating a single certificate to handling bulk operations through CSV file uploads.

Project Structure

The project is organized into multiple Java files, each serving a distinct purpose:

**Main.java**: The entry point of the application, handling initial user interactions.

**Authenticate.java:** Manages user authentication and registration.

**Accounts.java**: Facilitates certificate generation and management for different account types.

**Certificate.java**: Encapsulates the properties and methods of a certificate.

**TestFunction.java**: Provides functionalities for creating and taking tests.

**DataReader.java**: Utility to read data from CSV files.

**ClearTerminal.java**: Utility class for clearing the terminal screen for both Windows and UNIX-based systems.

**Main Components**

Main.java

The `Main` class controls the main program flow, presenting initial user options and transitioning into other parts of the application based on user authentication status.

Authenticate.java

Handles login and registration processes. It interacts with a CSV file to retrieve or store user credentials and account types. Once authenticated, users are directed to appropriate functionalities based on their account type.

Accounts.java

Manages three types of user accounts:

Personal: Allows individual users to create a certificate.

Business: Enables operations like creating individual certificates and processing bulk certificates through a CSV file.

Business Plus: Extends Business functionalities with additional features such as creating and taking tests.

Certificate.java

Represents a certificate with methods to generate a certificate file based on user input. It stores details such as the certificate holder's name, issuer details, and remarks.

TestFunction.java

Provides functionalities to create and administer tests, including storing test results.

DataReader.java

Contains methods to read data from CSV files, specifically for certificate data, which aids in bulk operations within the `Accounts` business functionalities.

ClearTerminal.java

Utility class providing a method to clear the console, enhancing user experience by keeping the terminal interface clean.

Utilities

The project also contains utility methods and classes that perform side tasks like reading from and writing to files, date formatting, and more.

Error Handling

The application includes basic error handling for file operations and data processing, ensuring that any file access or data format issues are reported to the user.

This documentation provides a fundamental understanding of the Sky Stone project's architecture and functionality. It can be used as a reference for development and debugging.