In my implementation, I am using the following languages and software platforms:

Languages:

HTML: I am using HTML for creating the structure and content of the web pages. HTML is the standard markup language for creating web pages and provides the basic structure for presenting content on the internet.

CSS Styling: CSS is used for styling and formatting the appearance of the web pages. It allows me to control the layout, colors, fonts, and other visual aspects of the application, making it more visually appealing and user-friendly.

Java: I am using Java for implementing the backend logic of the application. Java is a widely-used programming language known for its platform independence, strong community support, and extensive libraries for web development. It is well-suited for building scalable and robust web applications.

MySQL: MySQL is used as the database management system for storing and managing data related to user profiles, weather forecasts, crop recommendations, and other application data. MySQL is a popular open-source relational database system known for its reliability, performance, and scalability.

Software Platforms:

Apache Tomcat: I am using Apache Tomcat as the servlet container for deploying and running the Java Servlets. Tomcat is a widely-used open-source web server and servlet container that provides a robust and efficient environment for hosting Java-based web applications. It is well-suited for my application due to its ease of use, scalability, and support for Java Servlets.

Presentation of Code Modules:

My class structure is defined based on the requirements and use cases of the application. I have classes for managing user profiles, weather forecasts, risk mitigation strategies, crop recommendations, and other functionalities. Each class corresponds to a specific aspect of the application's functionality, and the code modules are organized accordingly.

For example, I have a UserProfile class that handles user registration, login, and profile management. This class contains methods for validating user credentials, creating new user profiles, updating user information, and managing user sessions. The corresponding servlets and database interactions are implemented to support these functionalities.

Similarly, I have classes for managing weather forecasts, crop recommendations, and other aspects of the application. Each class is responsible for a specific set of functionalities and interacts with other classes as needed to fulfill the requirements of the application.

Identification of Business Logic:

The code that handles user registration, login, and profile management can be considered as business logic. This includes validating user input, creating new user profiles, authenticating users, and managing user sessions. These functionalities are essential for the core operations of the application and directly contribute to its business objectives of providing a personalized and secure user experience.

Additionally, the code that generates weather forecasts, crop recommendations, and risk mitigation strategies based on user input and external data can also be considered as business logic. These functionalities involve processing complex data, applying algorithms and heuristics, and generating tailored recommendations for users to help them make informed decisions regarding their farming practices.