# Software Requirements

**Operating System:**

The operating system required is Windows 7, 8, or 10, providing a stable and widely supported platform for both development and execution.

**Front-End Technologies:**

The front-end of the web interface is developed using HTML, CSS, Bootstrap, and JavaScript, which offer flexibility in design and responsiveness across various devices.

**Programming Language:**

The core programming language used is Python, chosen for its simplicity and extensive support for machine learning and data processing.

**Python Libraries:**

To support the backend and machine learning operations, several Python libraries are employed, including Flask for web framework development, Pandas for data manipulation, Mysql.connector for database connectivity, Os for system-level operations, Smtplib for sending emails, and Numpy for numerical computations.

**IDE/Workbench:**

Development and testing are carried out using the PyCharm IDE, which offers a robust environment with support for Python and its related frameworks.

**Technology:**

The project uses Python version 3.6 or higher to ensure compatibility with the required libraries.

**Server Deployment:**

For server-side deployment, XAMPP Server is utilized, enabling a local development environment that includes Apache and MySQL for hosting and database management.

**Database:**

The database used for storing signature data and user information is MySQL, a reliable and widely used relational database system.