PathWise: Comprehensive Career Navigation System

Software Used

1. XAMPP:
   - A local server environment that provides Apache (web server), MySQL (database), and FTP services.

2. VS Code:
   - An integrated development environment (IDE) for writing and editing code in PHP, HTML, CSS, JavaScript, and Python.

3. Terminal:
   - Command-line interface to set up the virtual environment and execute machine learning scripts.

4. Safari/Chrome Browser:
   - For testing the website on `localhost`.

Execution Steps

Step 1: Setting up XAMPP

1. Download and Install XAMPP:
   - Download and install the latest version of XAMPP compatible with your operating system.

2. Project File Import:
   - In the `htdocs` folder of XAMPP, import all necessary project files:
     - `.php`, `.html`, `.css` files for web pages
     - `.png` files for images
     - `.csv` file for dataset
     - `.pkl` file for the model
     - `.py` files for machine learning.

3. Run Services in XAMPP:
   - Start the following services in the XAMPP control panel:
     - Apache (Web Server)
     - MySQL (Database)
     - Apache ProFTPD (File Transfer Protocol).

4. Database Setup:
   - Open phpMyAdmin in your browser (http://localhost/phpmyadmin).
   - Create a new database named `career-guidance`.
   - In `career-guidance`, create a table named `users` with the following columns:
     - `id`: Unique identifier for each user.
     - `username`: Username for login.
     - `password`: Password for login.
     - `created_at`: Timestamp for account creation.

Step 2: Organizing Files in VS Code

1. Create Project Folder:
   - In VS Code, create a folder named `ccgss`.

2. Store Files:
   - Store all project files within this folder, including `.php`, `.csv`, `.py`, `.html`, `.css`, and `.js` files.

Step 3: Setting up and Running the Python Environment

1. Terminal 1 Setup:
   - Open Terminal and navigate to the project folder (`ccgss`) by running:
     ```bash
     cd path/to/ccgss
     ```

2. Create Virtual Environment:
   - Create and activate a virtual environment:
     ```bash
     python3 -m venv mien
     source myenv/bin/activate
     ```

3. Install Required Libraries:
   - Install necessary Python libraries:
     ```bash
     pip install scikit-learn flask pandas numpy
     ```

4. Execute Python Scripts:
   - Run each of the following Python scripts sequentially:
     ```bash
     python3 bagging.py       # Train and save the machine learning model
     python3 testmodel.py     # Test the model functionality
     python3 testapp.py       # Start the Flask application
     ```

Step 4: Testing API Using Terminal 2

1. Open a New Terminal (Terminal 2):
   - Run the following curl command to test the model's prediction API:
     ```bash
     curl -X POST -H "Content-Type: application/json" \
     -d '{"input": [5.1, 3.5, 1.4, 0.2]}' \
     http://127.0.0.1:5000/predict
     ```

Step 5: Running the Website on Localhost

1. Open Browser:
   - In Safari or Chrome, navigate to:
     ```
     http://localhost/filename/paginame.extension
     ```

2. Website Access:
   - Your website will now be accessible and ready for use on the local server.