Full Stack Web Application Development Curriculum

Before starting Week 1, it's important to prepare the students with the necessary tools for the class. Here are the steps and notes on installing the required tools:

1. Python: Download and Install Python on the students' machines by following these steps:

- Visit the official Python website at https://www.python.org/.
- Choose the latest stable version of Python (e.g., Python 3.9) for download.
- Select the appropriate installer based on the operating system (Windows, macOS, or Linux).
- Run the installer and follow the installation instructions.
- Make sure to check the option to add Python to the system PATH during installation.

Note: It's recommended to use a Python version greater than 3.6 for compatibility with the latest libraries and features.

2. Visual Studio Code (VSCode): Download and Install Visual Studio Code, a popular code editor, by following these steps:

- Visit the official VSCode website at https://code.visualstudio.com/.
- Download the installer for the specific operating system (Windows, macOS, or Linux).
- Run the installer and follow the installation instructions.
- Open VSCode and install any recommended extensions for Python development.

Note: VSCode provides an excellent development environment with built-in support for Python and various useful extensions.

3. Git Version Control: Download and Install Git, a distributed version control system, by following these steps:

- Visit the official Git website at https://git-scm.com/.
- Download the installer for the specific operating system (Windows, macOS, or Linux).
- Run the installer and follow the installation instructions.
- Configure Git by providing your name and email address.

Note: Git will be used for version control, collaboration, and managing project repositories on GitHub.

4. GitHub: Sign up for a GitHub account by following these steps:

- Visit the official GitHub website at https://github.com/.
- Click on the "Sign Up" button and follow the instructions to create a new account.
- Provide the necessary details, such as username, email address, and password.
- Choose the appropriate plan (Free or Paid) for your needs.

Note: GitHub is a widely-used platform for hosting Git repositories and collaborating on projects.

5. iPython Notebook on VSCode: Install the iPython extension for Visual Studio Code by following these steps:

- Open VSCode and go to the Extensions view by clicking on the square icon in the left sidebar or pressing `Ctrl+Shift+X` (Windows/Linux) or `Cmd+Shift+X` (macOS).
- Search for "iPython" in the search bar.
- Find the "Python Interactive" extension by Microsoft and click on the "Install" button.
- After installation, you can open an iPython notebook by clicking on the "Jupyter" icon in the left sidebar or using the `Ctrl+Shift+P` (Windows/Linux) or `Cmd+Shift+P` (macOS) shortcut and searching for "Python: Create Blank New Jupyter Notebook".

Note: The iPython extension allows you to create interactive and exploratory notebooks within VSCode.

Happy coding! 😊 🚀