Prerequisite Document

Introduction:

This document outlines the step-by-step installation instructions necessary for students to effectively work with Angular 14, PostgreSQL with pgAdmin, .NET 8, and Visual Studio 2022.

System Requirements:

Ensure that your system meets the following requirements:
- Operating System: Windows 10, macOS, or Linux
- Sufficient RAM: At least 8GB recommended
- Disk Space: At least 20GB of free disk space

Software Installation:

1. Visual Studio Code:

1. Download Visual Studio Code:

  - Go to [Visual Studio Code website](https://code.visualstudio.com/) in your web browser.
  - Click on the "Download for [Your Operating System]" button.

2. Install Visual Studio Code:

   - Once the installer is downloaded, locate it in your computer's downloads folder or wherever you saved it.
    - Double-click on the installer to run it.
    - Follow the instructions in the setup wizard:
    - Click "Next" to proceed through the setup process.
    - Review and accept the license agreement if prompted.
    - Choose the installation location (you can leave it as default).
    - Select additional tasks if desired (e.g., adding to the PATH environment variable).
    - Click "Install" to begin the installation process.
    - Wait for the installation to complete.
    - Click "Finish" to exit the setup wizard.

3. Install Required Extensions:

  - Open Visual Studio Code.
  - Go to the Extensions view by clicking on the square icon on the sidebar or pressing `Ctrl+Shift+X`.

- In the Extensions view, search for "Angular Essentials" and "C for Visual Studio Code".
- Click on the "Install" button next to each extension to install them.

2. Angular 14:

1. Install Node.js and npm:

  - Go to the Node.js official website: [Node.js](https://nodejs.org/).
  - Download the LTS version of Node.js for your operating system.
  - Run the downloaded installer and follow the installation wizard instructions.

2. Install Angular CLI:

  - Open a terminal or command prompt.
  - Run the following command to install Angular CLI globally:
  <mark>npm install -g @angular/cli@14</mark>

3. PostgreSQL with pgAdmin:

1. Install PostgreSQL:

 - Go to the PostgreSQL official website: [PostgreSQL](https://www.postgresql.org/download/).
 - Download the installer for your operating system.
 - Run the downloaded installer and follow the installation wizard instructions:
   - Click "Next" to proceed through the setup process.
   - Choose the installation directory (you can leave it as default).
   - Select components to install (usually leave everything selected).
   - Set a password for the default PostgreSQL user ("postgres").
   - Click "Next" and then "Install" to begin the installation.
   - Wait for the installation to complete.
   - Click "Finish" to exit the setup wizard.

2. Install pgAdmin:

 - Go to the pgAdmin official website: [pgAdmin](https://www.pgadmin.org/download/).
 - Download the installer for your operating system.
 - Run the downloaded installer and follow the installation wizard instructions:

- Click "Next" to proceed through the setup process.
- Choose the installation directory (you can leave it as default).
- Click "Next" and then "Install" to begin the installation.
- Wait for the installation to complete.
- Click "Finish" to exit the setup wizard.

4. .NET 8 SDK:

1. Download .NET 8 SDK:

 - Go to the official website: [.NET SDK](https://dotnet.microsoft.com/download/dotnet/).
 - Download the .NET 8 SDK installer for your operating system.
 - Run the downloaded installer and follow the installation wizard instructions:
   - Click "Next" to proceed through the setup process.
   - Review and accept the license agreement if prompted.
   - Choose the installation location (you can leave it as default).
   - Click "Install" to begin the installation.
   - Wait for the installation to complete.
   - Click "Finish" to exit the setup wizard.

5. Visual Studio 2022:

1. Download Visual Studio 2022:
   - Go to the Visual Studio official website: Visual Studio.
   - Click on the "Download Visual Studio" button.
   - Choose "Visual Studio Community 2022" edition.
   - Click on the "Download" button.
2. Run the Visual Studio 2022 Installer:
   - Once the installer is downloaded, locate it in your computer's downloads folder or wherever you saved it.
   - Double-click on the installer to run it.
3. Choose Workloads:
   - In the Visual Studio Installer window, select "ASP.NET and web development" workload.
   - Optionally, you can select additional workloads as needed.
   - Click "Install" to begin the installation process.
4. Wait for Installation to Complete:

- The installation process may take some time depending on your system and selected components.
- Once the installation is complete, you'll see a confirmation message.
5. Launch Visual Studio 2022:
    - After the installation is finished, you can launch Visual Studio 2022 from the Start menu or desktop shortcut.
    - When you first launch Visual Studio 2022, you may be prompted to sign in with your Microsoft account or create a new one.

Additional Resources:

- Angular Documentation: [Angular Documentation](https://angular.io/docs)
- PostgreSQL Documentation: [PostgreSQL Documentation](https://www.postgresql.org/docs/)
- .NET Documentation: [.NET Documentation](https://dotnet.microsoft.com/learn)
- Visual Studio Documentation: [Visual Studio Documentation](https://docs.microsoft.com/en-us/visualstudio/)

Conclusion:

Ensure that all the mentioned software is installed and configured properly before starting with the course.

These detailed step-by-step instructions should guide your students through the complete installation process for Visual Studio Code, Angular 14, PostgreSQL with pgAdmin, .NET 8, and Visual Studio 2022. Let me know if you need further assistance!