**Technology Stack**

**Backend**:ASP.NET Core C#, MS SQL / My SQL.

**Frontend**: Angular TypeScript

**Software stack for the project**

**1 .NET Core SDK**

The **.NET SDK** is required to build and run .NET Core applications.

**Download Link**: [Download .NET Core SDK](https://dotnet.microsoft.com/download)

**Installation Steps**:

1. Visit the download page.
2. Download the latest **.NET SDK** for your operating system (Windows, macOS, or Linux).
3. Run the installer and follow the on-screen instructions to install .NET Core SDK.
4. To verify installation, open a terminal/command prompt and run:

dotnet –version

**2. Visual Studio Code**

**Download Link**: [Download Visual Studio Code](https://code.visualstudio.com/)

* **Installation Steps**:
  1. Download the installer for your operating system.
  2. Run the installer and follow the instructions.
  3. After installation, open Visual Studio Code and install extensions like:
* Open **Visual Studio Code**
* Go to the **Extensions** view by clicking on the square icon on the left sidebar
  + In the **Extensions** search box, type C#
  + Look for the extension **"C# by OmniSharp"** and click the **Install** button
  + Direct Link: <https://marketplace.visualstudio.com/items?itemName=ms-dotnettools.csharp>
  + In the search box, type SQL.
  + Look for the extension **"SQL Server (mssql)"** by Microsoft and click **Install**.
  + Direct link: <https://marketplace.visualstudio.com/items?itemName=ms-mssql.mssql>
  + In the search box, type Angular.
  + Look for the extension **"Angular Essentials"** by John Papa and click **Install**
  + Direct link: <https://marketplace.visualstudio.com/items?itemName=johnpapa.angular-essentials>

1. **Visual Studio**

Download Link: Download Visual Studio <https://visualstudio.microsoft.com/>

**4. SQL Server Express (Database)**

**Download Link**: [Download SQL Server Express](https://www.microsoft.com/en-us/sql-server/sql-server-downloads)

* **Installation Steps**:
  1. Click on the download link
  2. Download the **SQL Server Express Edition** and follow the installation steps.

**5. SQL Server Management Studio (SSMS) (for database management)**

**Download Link**: https://aka.ms/ssmsfullsetup

* **Installation Steps**:
  1. This will take you directly to the **SQL Server Management Studio (SSMS)** setup file from Microsoft.
  2. Run the installer and follow the on-screen instructions to complete the installation.
  3. Once installed, open SSMS and connect to your SQL Server instance.

**6. Node.js and npm (Frontend Development for Angular)**

**Purpose:** Node.js provides the runtime environment for Angular, and npm (Node Package Manager) is used to install dependencies for Angular.

* **Download Link**: https://nodejs.org/en/download/
* **Installation Steps:**
  1. Go to the Node.js website and Download the **LTS version** (recommended) for your operating system.
  2. Run the installer and follow the on-screen instructions.
  3. After installation, verify by opening a terminal/command prompt and typing:

node --version

npm --version

**7. Angular CLI (Angular Project Setup)**

**Purpose**: To create and manage Angular projects.

* **Installation Steps**:
  1. **Once Node.js is installed, open a terminal/command prompt and run:**

npm install -g @angular/cli

* 1. This will install Angular CLI globally on your system.
  2. After installation, verify the installation by running

ng –version

**8. Follow Angular Material for UI design**

**Install Angular Material:**

Run the following command in your terminal:

ng add @angular/material