Title of Project:

Improving Diabetes Management through Technology: A Web-Based Medication Search Engine Application using a Public API

Project Type

Student-defined

Project Domain

Software Development Education

Project Background & Context

Diabetes is a chronic disease that affects a vast number of individuals worldwide, and managing it requires close attention to glucose levels, dietary habits, and drug regimes. Having easy access to reliable and up-to-date information on medications is crucial for diabetics to avoid dangerous interactions/side effects and properly manage their diabetes. Because medications are continuously being tested and new information regarding these medications are rapidly being released, it could be hard for both healthcare providers and individuals to have the most accurate information on medications. To help solve this issue, my project intends to provide easy access to new information by creating a web-based application that utilizes a public API that is updated and checked on a regularly basis. The aim of this application is to change how we understand the medications we are taking and the way we can have access to this information.

Project Aims

- Create a web-based application that is accessible and easy to use.
- Design an application that is user friendly, anyone will be able to utilize the application regardless of their level of knowledge.
- Create an application that has accurate information on diabetes medications, this includes dosage, potential side effects and interactions with other medications.
- Help individuals have better management of their diabetes, especially if they don't have regular access to a healthcare provider.

Project Objectives

- Create an application that is straightforward, the user should be able to navigate the application and search medication names or their medication code with ease.
- Creating an application that can be accessed by any web browser, the user won't need to download an application on their mobile device.
- Using a public API that is regularly being updated with accurate information, so that users can be sure that the information they are viewing is correct.
- Creating an application that allows users to look up detailed information on the current drugs they are taking so that they understand the dosage/usage information, which will help avoid improper management of their diabetes.

Project Resources

- A laptop/PC (mac m1)
- Visual Studio Code
- Github
- Zotero for reference management