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# Include my golf/sport functions

Comparative on other golf apps

What the project is about and why I chose it (to learn about app development)

Other apps are paid for

**2.1 Overview of .NET MAUI for Cross-Platform Development**:.NET MAUI (Multi-platform App UI) has started to gain popularity in the app development world as it has allowed developers to create applications for iOS, Android, macOS, and Windows using the same codebase in Visual Studio (Say who). The way its framework is programmed, it allows us developers to share the code much easier across different platforms which can greatly increase the speed and reduce the cost of development for apps. Tutorials and best practices suggest that MAUI’s control library and layout flexibility support interactive and responsive designs for various screen sizes and devices.(Says who) Aswell, using Visual Studio’s integrated tools allows for robust debugging, hot reload, and project setup, making it a solid choice for app development across multiple platforms (Copper Digital, 2023; Visual Studio Magazine, 2023).

**2.2 Integrating GPS and Location APIs**:.NET MAUI supports easy integration with GPS map controls and APIs like Google Maps. The integration with the GPS and the different APIS allows the app to interact with GPS data, display maps, add location pins (Which is an ideal tool for when I am creating the maps of the different golf courses). Including maps with a customisable map view in .NET MAUI allows developers to use the geographic information without custom implementations for each platform, as shown in Microsoft’s cross-platform mapping tutorials (Microsoft Learn, 2024; Artesian, 2023). (Says who)

**2.3 Using Google APIs with .NET MAUI**: The Google Maps API is a great tool that integrates well with MAUI on Visual Studio Code. The API offers different types of functionality such as displaying location Data and providing Directions, (location data will be very important for my app). Integrating these APIs requires setting up API keys and configuring platform-specific settings, especially for Android and iOS. The use of NuGet packages are recommend with MAUI as it ensures that the Google services that are being used are handled properly across all the platforms. (Says who) This integration allows for advanced capabilities, including routing, which enhances the app’s utility in location-based services (Artesian, 2023; Visual Studio Magazine, 2023).

* 1. **Project Management**:
  + VS Code allows us developers to organise different files such as powerpoint slides, document files, and project folders into one project folder that can be futher organised by different extension that visual studio provide such as different colour coding file types and icons that can be used. This makes switching between different files and resources very easy.

**3.2 GitHub Integration**:

* + VS Code has a built-in Git support that allows us developers to clone repositories, commit changes and create branches on GitHub without leaving the editor.Some of the extensions like GitLens also provide insights into code history, User contribution, and line-by-line changes, Showing who made what changes to the code if multiple people had access to the code.

**3.3 Document Storage and Access**:

VS Code supports a range of different file types, including Markdown, .txt, .pptx, html, and other document formats, allowing developers to keep important project documentation in the same folders as the code files. Some of the extensions like the preview feature allows developers to view different files such as powerpoints from VS Code.

**3.4 Cross-Platform**:

* + Vs Code is readily available on all major platforms such as Windows, macOS, and Linux. This allows very easy collaboration across different platfrom.

### **4.1 Codebase for Multiple Platforms:**

.NET MAUI allows developers to create an app that will work across multiple platforms without the need for multiple different applications that you would require to create apps on both android and IOS. This helps with organisation and storage of the project.

### **4.2 Integration with Visual Studio:**

Visual Studio provides extension tools for .NET MAUI that allow it to create a field for testing and debugging, making it easier to develop as this is all done in the one project folder.

### **4.3 UI and Control Library:**

MAUI has a great control library that allows developers to create UIs with just a small bit of coding. MAUI has features such as Stacklayout and different controls such as interactive buttons that are important for creating a responsive interface.

**5. Naweed Akram's article, Building a Real-World MAUI App: The Good, the Bad, and the Ugly**

Naweed Akram is a software developer that used MAUI to create an App. He previously worked with Xamarin Forms but switched to MAUI and found that many features that used to require third-party tools or custom code were now built directly into MAUI.

[TO BE CONTINUED]

**5. References**

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* Copper Digital, 2023. *A Complete Beginner's Guide to .NET MAUI*. Copper Digital.
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