Annex

Technologies

- **C#:** C# is a very versatile programming language that can be used for game development, web development, and many more. It's easier to use than lower-level language like C++ and more flexible than higher-level languages like Python. It's also a very popular programming language, ranking 4th in the 2018 Stack Overflow Developer Survey in the "Most Popular Technologies" after JavaScript, Java and Python.

- .NET Core: .NET Core is a server-side framework that is open-source, cross-platform, lightweight and easy to use. It can be said it is the "new kid on the block" compared to its predecessor, .NET Framework, and is very appealing for newcomer programmers given its lightness and well documented features. It is also the 4th most popular framework in the 2018 Stack Overflow Developer Survey.

- SignalR: ASP.NET Core SignalR is a library that simplifies adding real-time web functionality to apps. Real-time web functionality enables server-side code to push content to clients instantly.

  SignalR provides an API for creating server-to-client remote procedure calls (RPC). The RPCs call JavaScript functions on clients from server-side .NET Core code.

  Naturally, the client-side version of SignalR was used in conjunction with the .NET one so that functions could be registered and thus made visible to the server-side hub (A hub is a high-level pipeline that allows your client and server to call methods on each other). The client-side version can also make RPCs to server-side functions, thus making the communication between client-side and server-side very simple and intuitive.

- Angular: Angular is a framework that makes it easy to build client-side apps. Angular combines declarative templates, dependency injection, end to end tooling, and integrated best practices to solve development challenges.

  Angular was the chosen client-side framework because of its following advantages: is trustwhorty, familiar, and has a strong ecosystem. Angular is trustworthy because The Angular team is committed to evolving Angular in a careful and planned manner, with a publicly announced release schedule that allows developers to understand and plan for future changes to the framework. They roll out new versions pretty frequently so it's pretty obvious the framework is here to stay and evolve.

  Angular is familiar for a developer with C#/.NET background. Both C# and typescript rely on type specification which makes working with them safer and clearer.

  Angular also has a strong ecosystem. There are thousands of libraries and code samples across the web for Angular and given it has the giant tech company Google as its parent, we know for sure it has enough resources to grow.

- Automapper: AutoMapper is an object-object mapper. Object-object mapping works by transforming an input object of one type into an output object of a different type. What makes AutoMapper interesting is that it provides some interesting conventions to take the dirty work out of figuring out how to map type A to type B. As long as type B follows AutoMapper's established convention, almost zero configuration is needed to map two types.

- MD Bootstrap: MD Bootstrap is a very popular design framework meant to make front-end design easy and intuitive.

- SQL Server: SQL Server is a central part of the Microsoft data platform and it is the second most popular database technology according to 2018 Stack Overflow Developer Survey.