

Outline of approach

Given the short amount of time and taking this task in an Agile fashion, the first action was to fully consider the specification and identify what needed to be done. These were then transferred onto Post-Its notes for a rudimentary Agile board, tracking progress and breaking down into bite-sized portions.

The work on this was done and considered as a first prototype which can then be iterated on further to improve and add functionality; a focus was done on functionality rather than appearance for user testing/acceptance.

In terms of implicit requirements the main one identified was the ability to store data persistently, implement google maps (most commonly used maps application), ability to enter notes, adding a front-end to view them (markers), ability to see markers from other users, and geographical locating.

Research was done to learn about and implement functionality that I was unfamiliar with at first, such as more in-depth Angular setup, unit testing on a new project and code-first EF databases. Certain portions of the task required research and learning on how to implement.

Database can be created by running 'Update-Database' in Package Manager console in Visual Studio.

Time spent

Project setup	30 mins
Git setup	15 mins
'Board setup'	15 mins
Adding user authentication	1 hours
Creating database tables (EF)	2 hours
Controllers	2 hours
Unit tests - Angular	5 hours
Unit tests - C#	3 hours
General testing	1.5 hours

Issues/Limitations

Technical functionality was completed as per requirements, however was unable to implement C# Unit tests due to a lack of experience with ASP Core Web Controller testing and limited time.

Given more time to iterate on this first prototype, I would've liked to add more error handling into the database layer, improved security, enhanced resilience, added more unit tests, confirmation toast on add, creating a proper SQL database and integration tests and allowed users to see a list of their own markers (and delete them).