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# Introduction

I have recently been tasked with planning a digital solution for Health Advice Group. They already provide users with:

* advice regarding extreme weather
* information about environmental conditions and allergies
* risk assessments for environments

The digital solution requires that:

* users are provided with a weather forecasting feature.
* users have access to a dashboard for monitoring air quality.
* users can look for advice for dealing with related health matters.

Finally, the client has requested some potential features which could be in the solution:

* health advice based on location.
* accessibility features.
* health tracking tools.

This documentation is designed to outline how I would suggest implementing the solution, the requirements and metrics which would measure the success of the project, and how we will comply with legislation and guidelines.

# Design

In this section I will be discussing several factors which will impact the design choices of our application and how we plan to comply or address these factors.

## Project Proposal

## UI/UX Designs

## Legalities

# Requirements

## Software Requirements

|  |  |  |
| --- | --- | --- |
| Software Name | Software Type | Reasoning |
| HTML / Razor | Markup Language | HTML is needed to insert basic content such as text, buttons, and links into web pages, which the solution will be using. |
| CSS | Styling Language | CSS is needed to edit or manipulate the layout or appearance of basic HTML elements on a webpage. As HTML is used, CSS is also important. |
| JavaScript | Programming Language | JavaScript is the language which runs any basic logic on the web page and is used to retrieve data and generate new or edit existing HTML elements and CSS properties. |
| Bootstrap | CSS Framework | Bootstrap is a framework which generates hundreds of existing CSS classes, reducing the amount of CSS that we must write ourselves. |
| jQuery | JavaScript Library | jQuery is a JavaScript library designed to make the way that JavaScript can be written more concise. This will improve the readability, scalability, and performance. |
| OpenWeatherMap Current Weather | API | The current weather API is a large set of data for the current temperature at a certain longitude and latitude. This will allow users to easily see the weather at any time. |
| OpenWeatherMap Air Pollution | API | The air pollution API is a detailed list of the concentration of all the pollutant chemicals in the air at a certain longitude and latitude. This will allow users to see if the air quality is healthy or unhealthy and allow users to take action based on the result. |
| OpenWeatherMap Geocoding | API | Whilst you can get the Latitude and Longitude of a user from their location, users may opt to see a different location. As the APIs expect a Latitude and Longitude, this API can convert a readable address to a Latitude and Longitude to be used in the other features. |
| ASP.NET MVC | Backend Framework | ASP.NET MVC is a backend tool which is used to generate HTML webpages using C# queries and code, retrieve and manipulate data from a database, and authorise current users and their permissions. |
| Microsoft SQL | Query Language | Microsoft SQL is a Query Language which is used to store, retrieve, and update data. By default, ASP.NET MVC uses Microsoft SQL and I will be using it as they are both well integrated. |

## Hardware Requirements

Whilst there are no specific hardware requirements, the host machine must be able to run all the software requirements, mainly ASP.NET MVC, which comes bundled with the majority of the other software requirements (excluding APIs).

## Functional Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement Number | Description | Priority | Reasoning |
| 1 | Everyone has access to an accounts system. | HIGH |  |
| 1.1 | Individuals can sign up for their own account using their name, email, and a password. | HIGH |  |
| 1.2 | Individuals can log in using the email and password that they used to register. | HIGH |  |
| 1.3 | Individuals can reset their password. |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Non-Functional Requirements

# Project

## Project Methodology

## Project Risks

# Business Context

## Key Performance Indicators (KPIs)

## User Acceptance Criteria

# Data

## Data Map

## Data Requirements

# Testing

## Testing Strategy

## Testing Log

## Feedback Approaches