## **Weather Meme Generator**

Weather Meme Generator is a utility to quickly assemble a relevant meme given a user's location in order to give a comedic description of the current weather.

The general scope is providing a descriptive meme that strongly describes the user's current environmental condition. E.g. if it is raining combined with cold, the image and text it generates would accurately describe the emotive sense of that condition. This is the overall general goal of the program and what needs to be achieved. The fallback goal would simply be to have a lesser relevant production. It can be related but not as fully descriptive or pinpointedly relevant as possible. One stretch goal would be to have an acutely relevant production that includes acutely relevant text to describe the situation. Forecasting and other information could be included as well. The farthest likeliest stretch goal achievable would be the integration of social media APIs that allow users to quickly post their generated meme.

A user would be able to use this utility for social media or in another form of message, in order to quickly generate a comedic post that describes their sentiment of the weather. For this use case it is important for the application to be simple, clean and intuitive; with precise logic to formulate a good post on the first generation. It is also important to make the application easy to use on a mobile interface, which means it needs to be simple and clean. We hope the user walks away thinking it was a fun comedic experience and producing a relevant meme that people will enjoy to see.

We chose DarkSky, Giphy, and Geocoding by Google as our chosen web services. DarkSky is a weather application that can return a large amount of weather data at a given GPS coordinate. We don't expect for users to know their precise GPS location, so we are employing a Geocoding API from google to transform an inputted 5 digit ZIP code into GPS coordinates for input. We will then parse the weather data from DarkSky as search terms in Giphy which would then return an image. All of the above API's were chosen due to their expansive documentation and free use.

2 of the 3 members in the group has previous experience with Node.js and React but one member has no previous knowledge on web development. This member will have to learn both frameworks in order to work on the project, potentially slowing down development pace. The project also needs to integrate multiple facets, e.g. external sources, front end and back end. So, it will be a challenge to integrate the parts of the project cohesively. Finally, the project needs to be able to work on mobile platforms as well as in other forms of web browsers.

Henning will initially work on the project level scope, laying out initial technologies and creating a platform for further development. Tommy will be creating relevant React components in order to display reactive information to the users. Caleb will be working on the API hooks and the underlying logic of the system. As the project progresses, Henning will be able to assist the others on both logic and component creation. After components are finished, all 3 members will be able to work on the logic.

The interface is designed to be simple, intuitive and easy to use on mobile. It only presents one text field and a single generate button. When the generate button is clicked, the server compiles information from the api calls and generates a witty phrase based on the

dynamics of the information (e.g. temp + precipitation + cloud cover). This is then used to develop a meme component that React places onto the page below the form.

