Requirements

- Color scheme flexible colors based on the weather
    - Backgrounds adaptive based on weather conditions
    - Can upload personal backgrounds to app
    - Users can select their own personalization styles and customize the layout and theme of the app to their liking
- Analyzing weather data, predicting trends, and displaying historical trends
    - Display graphs and charts for historical weather patterns including monthly and yearly precipitation, temperature, UV, etc.
    - Show how current weather patterns are comparing to historical ones
    - Make predictions of future weather based on historical data
- Live locations
    - Get the current location of the user to display their weather
    - Allow user to see weather of chosen locations on their dashboard
    - Show user weather of popular areas
- Notification System
    - Push notifications to users for changes in weather for current location and planned locations
    - Notify users of extreme weather patterns and inclement weather
    - Suggest precautions for users to take based on daily forecast
- Extension capability to further customize the app
- Scheduling feature
    - Display an hourly forecast of planned locations based on the users set schedule or adapted from their daily location schedule
    - Display a map of the forecast over the users' saved locations
    - Reminders of weather the user wants to see based on scheduling preferences
- Travel Mode
    - Allows a user to receive concurrent weather updates across the entire route based on likely travel path
    - Provide a forecast of what the weather will be like at each point in the route for the estimated time of arrival at that point
    - Adapt the travel modes to the user's daily routines and provide corresponding weather updates
- Widgets and Dashboard
    - Widget displays the weather on select locations
    - User can customize which widgets they see on their dashboard
    - Users can customize the weather related activities that the widgets display (UV, precipitation, temperature, wind, etc.)
- Unit conversions based on user location or preferences such as Fahrenheit and Celsius for temperature
- Personalization of the app

    - Users can make the app as simple or complicated as they want based on widgets, extensions, and themes
    - Default to the current weather of current location unless user changes this setting
- Non-functional
    - Loading the weather for the current location should have a response time of < 5 seconds
    - Loading the weather of a selected location should have a response time of < 1 second
    - Web app should be coded using React library
    - Decision tree should be used for user suggestions

User-Stories

- Wishlist
    - Epic
        - As a customer I want to be able to customize the web app to all my preferences
    - Stories
        - I want to be able to put my cute cat pictures in the app
        - I want to be able to customize the theme to be dark
        - I want the app to adapt its theme to the current weather
        - I want to be able to create a custom overview with information relevant to what my needs are.
    - Tasks
        - Use React to create an upload button to add pictures
        - Use React to create customizable themes as well as default theme list
        - Inspired from Jiras custom dashboard with widgets, the user will be able to create their own overview screen by adding various widgets related to the information they need
- Wishlist
    - Epic
        - As a customer I want to view the current weather conditions to my location, so I can plan out my day accordingly
    - Stories
        - I want to be able to view the weather in my current location and my destination location
        - I want the app to provide an hourly breakdown based on my estimated location at each hour
        - I want the app to adjust to my schedule and provide weather alerts for my usual locations
    - Tasks

        - Use the google maps API and React to program the weather route
- Wishlist
    - Epic
        - As a customer, I want to access historical weather data for a location so that I can learn more about the area at specific parts of the year
    - Stories
        - I want to be able to have the reassurance of the low likelihood that I won't deal with extreme weather conditions
        - I want to learn more about the area conditions throughout time because it interests me
        - I want to be able to see general trends in weather for a location at a particular time of the year
    - Tasks
        - Use the google maps API and React to display the weather conditions
        - Create a feature for historical weather data so that users can explore information about a location over time
- Wishlist
    - Epic
        - As a customer, I want the app to be nice and easy on the eyes
    - Stories
        - The app should allow the users to customize the main colour of the app that will extend to the widgets
        - The app should support dynamic colouring that matches the weather and time of day that the user can toggle between
        - The app should adhere to accessibility guidelines in its colour and font choice
    - Tasks
        - Retrieve the data from the API and assign the weather and time of day to variables
        - Set conditionals that use these variables only if a "dynamic lighting" variable is true
        - Otherwise, have the user choose a colour that will be assigned to the widgets
- Wishlist
    - Epic
        - As a customer, I want to be able to plan out a travel day based on the weather in various locations
    - Stories
        - The app should allow the users to create a schedule for weather information based on the times and locations set

        - The app should provide apparel suggestions appropriate for weather conditions
    - Tasks
        - Retrieve the data from the API and assign the weather and time of day to variables
        - Create a decision tree for apparel suggestions based on generated weather data
- Wishlist
    - Epic
        - As a customer, I want to be able to create a custom overview of weather data so that I get all the information I want how I want it
    - Stories
        - The app should have several weather-related metrics displayed through widgets
        - Each widget should have customization features concerning colour, background, and more
        - There should be multiple widgets for the same metric so that information is shown in different ways (i.e. single or double bar line, scatterplot, etc.)
    - Tasks
        - Create weather metric widgets for information including but not limited to any combination of the following: temperature, humidity, wind, precipitation, daily forecast, hourly forecast, weekly forecast, UV index, travel method safety, real-time weather, radar, pressure, health concerns, wind-chill, feels-like temperature, sunset, sunrise and air quality

Tools

- Jira is a tool to manage the user stories and sprints
- React is a tool we'd use to create the web app
- Accuweather API for weather related data fetching

Breakdown of Contributions

Matthew Berger, Harman Barpaga, Hamza Chaudhry, Duncan McDonald, Matty Slyzys, Michael Conroy, Azeel Jivraj attended the Release Planning Meeting on January 23rd. Notes from that meeting are in an issue on the Github due to temporary push access problems. All members present contributed suggestions for requirements, user stories, project discussion and outlook. Hamza created the OneDrive, this document, and added the requirements and user stories we discussed during the meeting. Harman created the GitHub project and after the meeting, he created a wireframe for the app. On Friday, Duncan, Matthew B., and Hamza met to finalize this report. Duncan and Matthew

continued to refine the document, expand on requirements, and add user stories. Azeel suggested the categories for the epics and created the Jira Project. Duncan moved some of the user stories to the Jira backlog for later organization and planning. Matthew B. has taken meeting notes for the in-person meetings and facilitated discussion throughout.