

# Weather Webapp

This work sample is created to test the candidate's ability to work independently, full-stack and with the MERN tech stack. Please note that this is an artificial task and does not fully resemble a normal task in the company, but it's using part of the same tech stack and is limited in scope. Also, the candidate might put more emphasis on one part of the stack (frontend or backend) depending on their skillset and comfort level.

## The assignment

The goal with this work sample is to create a simple weather app that will display the current weather for an area.

The frontend should:

- Show a simple search page for entering zip code or city name (optionally: use the browser's Geolocation API to get the user's location)
- Searching should send a request to backend
- On successful result show a clean simple result page showing the current weather in that area
- On failure, show a nice error page

The backend should:

- Expose a suitable API for the frontend (REST or a plus: GraphQL with Apollo Server)
- Send the weather request to an external service provider (see tips below)
- Add MongoDB caching for improved performance
- Graceful error handling

General:

- The code needs to be self contained, meaning it should be possible to install dependencies and run the backend and frontend from a standard local environment
- It would be preferable with a responsive webapp
- Comment the code at the level you feel is necessary for us to understand and assess the code
- Add appropriate automated testing to both frontend and backend

Some tips:

- Bootstrap the frontend with the `create-react-app` package
- Some weather API providers: <https://openweathermap.org/api> or <https://developer.yr.no/>

## Assignment delivery

1. Create a private Github repo for the assignment
2. Submit the answer by giving us access to the git repo (invite Github user @tah)

## Assessment

This work sample is only one of many ways to measure something, only one of which is your ability to develop software. We will be looking at the following when evaluating your work sample:

- Ability to follow specific instructions
- Ability to follow existing software patterns
- Ability to solve problems on your own
- Thoroughness
- Comfort working with the complete development stack (version control, test frameworks, etc...)

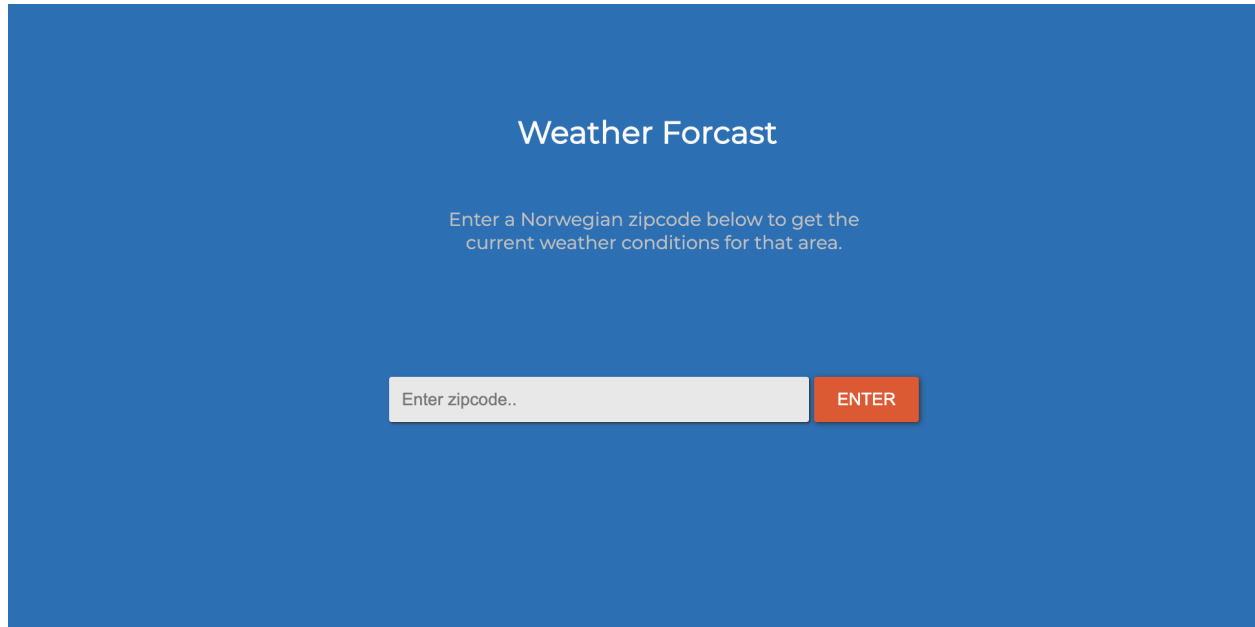
## Notes

Some work sample notes:

- This is a 100% open book test - you should be reading existing adapters, searching Google for solutions to common problems, etc...
- We have to create a frontend + backend, add routes, get data from a 3rd party API, use this API data with a React frontend, and we have to route React components around.
- Finally, we are looking for any and all feedback about the work sample process including whether you think it's an appropriate effort to ask somebody to do as part of the application process (i.e. it doesn't take too long, isn't too onerous of a process etc...).

# Appendix 1: Sample screens

## Search screen



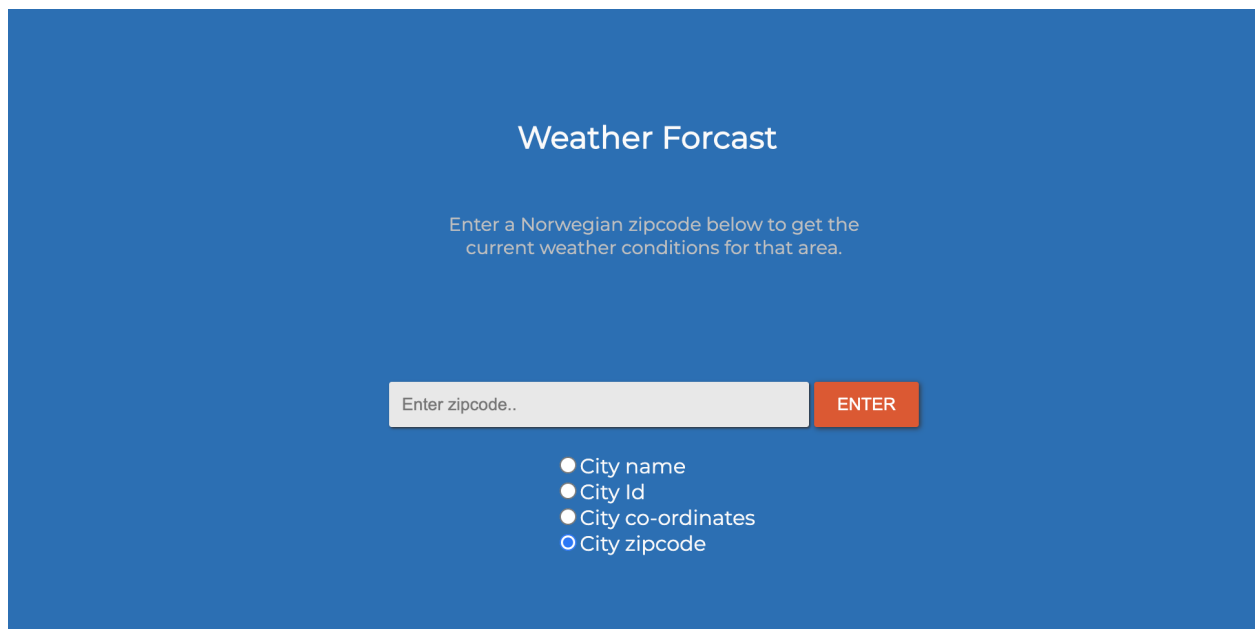
Weather Forecast

Enter a Norwegian zipcode below to get the current weather conditions for that area.

Enter zipcode.. ENTER

This is a sample screen for a weather forecast search. It features a blue background with the title 'Weather Forecast' in white. Below the title is a message: 'Enter a Norwegian zipcode below to get the current weather conditions for that area.' At the bottom, there is a white input field with the placeholder text 'Enter zipcode..' and an orange button labeled 'ENTER'.

Or with more options:



Weather Forecast

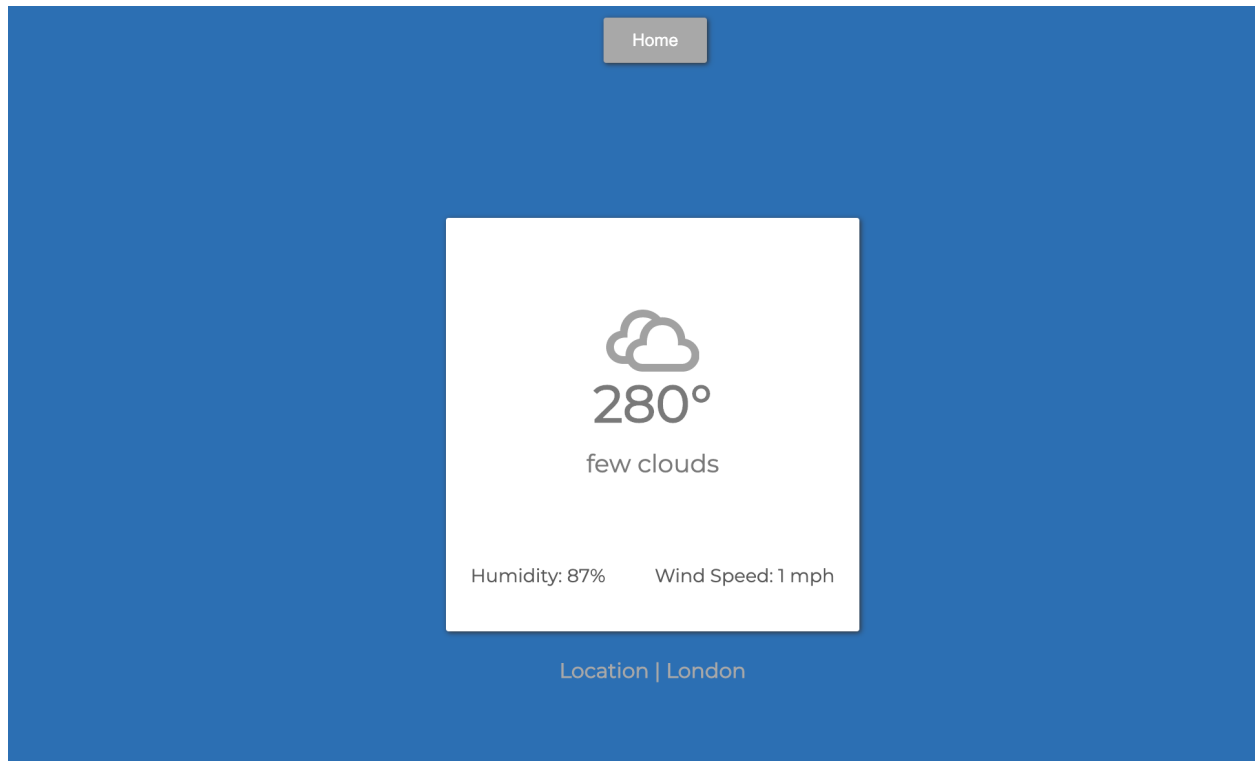
Enter a Norwegian zipcode below to get the current weather conditions for that area.

Enter zipcode.. ENTER

- City name
- City Id
- City co-ordinates
- City zipcode

This is a sample screen for a weather forecast search, similar to the first one but with additional options. It features a blue background with the title 'Weather Forecast' in white. Below the title is the same message: 'Enter a Norwegian zipcode below to get the current weather conditions for that area.' At the bottom, there is a white input field with the placeholder text 'Enter zipcode..' and an orange button labeled 'ENTER'. Below the input field, there is a list of four options, each with a radio button: 'City name' (selected), 'City Id', 'City co-ordinates', and 'City zipcode'.

## Weather forecast page



## Error page

