

Criteria A

My client, who is a physics teacher, loves astronomy. Due to this, he likes going out to observe the universe. To do so, he looks up the weather forecast and tries to guess how good can be the observation. The problem is that the data that matters to an astronomer is hard to find on a typical weather app. He needed a way to see on a first glance how good would be the sky. On mid-December 2018, we did an interview and came up with an idea: build a web that showed the forecast and evaluated the quality of the sky automatically. After sketching the project, we decided that the product should be able to accomplish the following criteria.

Success criteria

- Get the location of the client
- Get the forecast based on the clients location
- The client has to be able to login and register as:
 - Admin
 - Normal user
- The client has to be able to contact with the administrator
- The administrator has to be able to reply to the email
- There should be a register of the usage
 - The user should be able to visualize it

Solution proposed

As this needs to be accessed from many places, we will use a web page. We will get the location from the browser using javascript and using fetch we will get the data from an api such as Darksky. For the login and register we will use ajax, php and mysql because it is the most used and is very versatile. For the contact we will use the same pack instead of an email. That way the client doesn't have access to the mail account, but for the administrative reply we will use python3 and gmail smtp server because I have experience with this structure and it would be easier form to adapt it than to create it from scratch using php. For the location register we will use mysql. When storing the data we will only keep a count of the people in a location and not the other way around because that way the data is anonymous avoiding the ethical concerns related with storing private data.

Test Design

Location

On loading the web on the top right corner of the screen, under the topnav there should be your latitude, longitude and nearest city.

Register and Login

On loading the web click on the register button. It should bring the user to the [register page](#). Fill the register form and click the register button to register. Go to the [login page](#) and fill the login form. When clicking the login button it should show the [main page](#).

Forecast

On loading the main page there should be three graphs, one with the temperature forecast, another with the rain probability and another with the seeing forecast.

On the right side there should be the current:

- Temperature
- humidity
- opacity
- seeing
- quality
- Summary

Contact

Go to the contact page fill the form. Then click on the send button. When an admin account logs in and goes to the contact page it should be show the last message instead of the contact form.

History

The when clicking on the history button the according page is loaded and sows the top most accessed cities.