# *W.A.F.T. Design Report*

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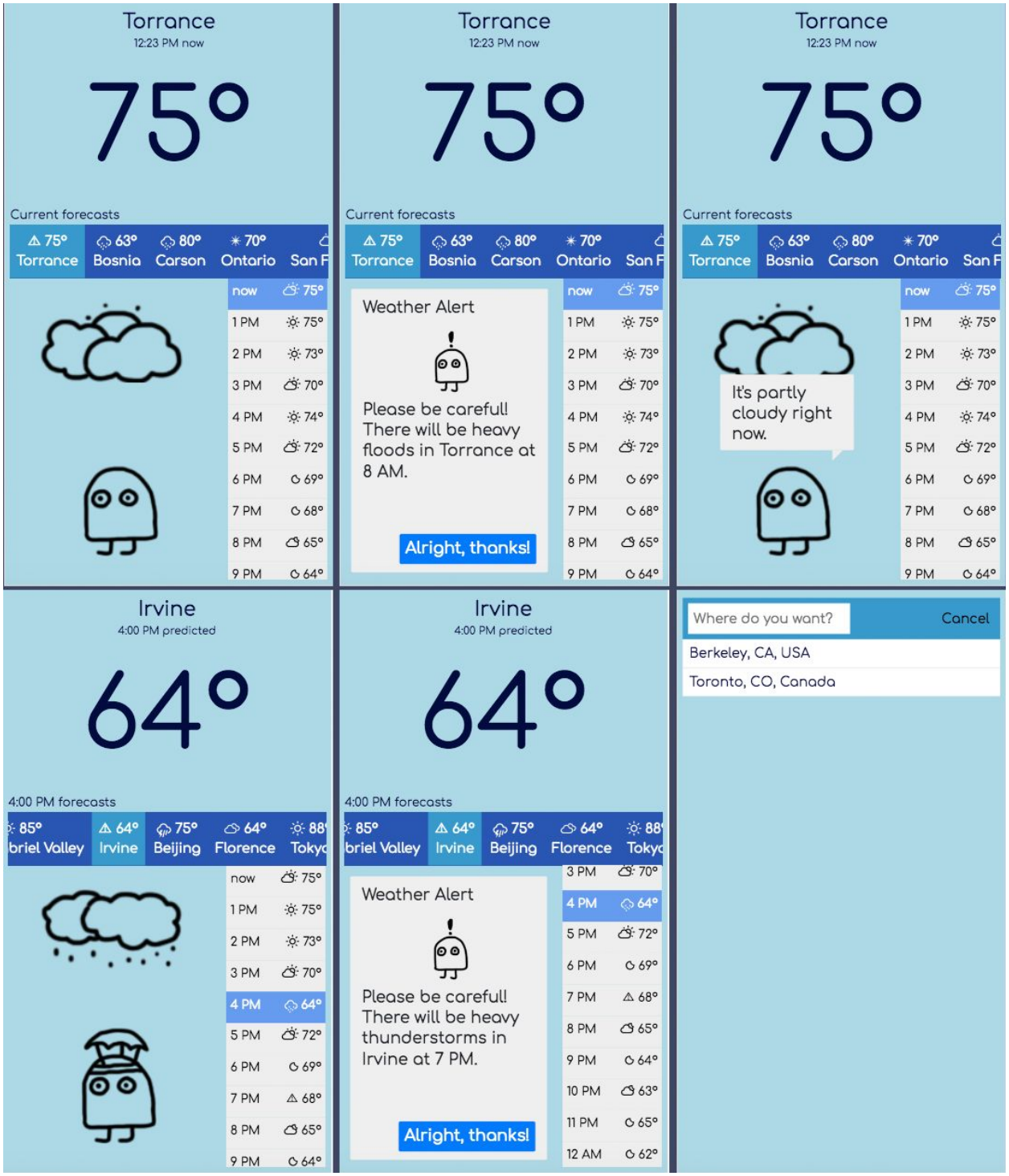
June 25th 2018
Computer Science 160 - Amy Pavel

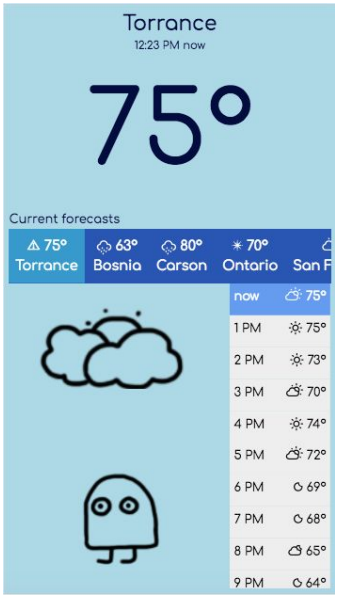



Weather and Forecast Teller - WAFT is a prototype for a weather app designed using HTML, CSS, and Bootstrap, starting from a low-level design and proceeding with the design cycle to create a high-fidelity prototype as a final product.

## Project description

For this project, the goal was to design a mobile application that would be able handle certain functions and procedures. I was given specific STUs (situations, tasks, and users) which in summary was to create a weather app for the leisure traveler, and be able to alert the user of the weather - eg. the forecast at any location at any specified hour, or of an approaching weather emergency. I went through multiple procedures and steps, following the basic design cycle (design, prototype, evaluate...) all throughout working with an iterative idea based on simplicity and uniqueness, which were my two focuses when sketching all the way to implementing a prototype.

## Interface and interactions




The intention of my interface was to ease the information for the user. The largest areas I wanted to direct them to was the temperature in large font and also WAFT, the cartoon assistant. Tapping on WAFT will give the user a little bit of extra information on the forecast, such as “it is slightly cloudy right now” to give the application a friendlier feel to it. Choosing a certain hour of the forecast will allow the user to see not only the weather for that hour, but also the weather of multiple locations for that specified hour as well (the forecasts will update), and the home page will change depending on which location you choose to look at if you tap on one of the locations.

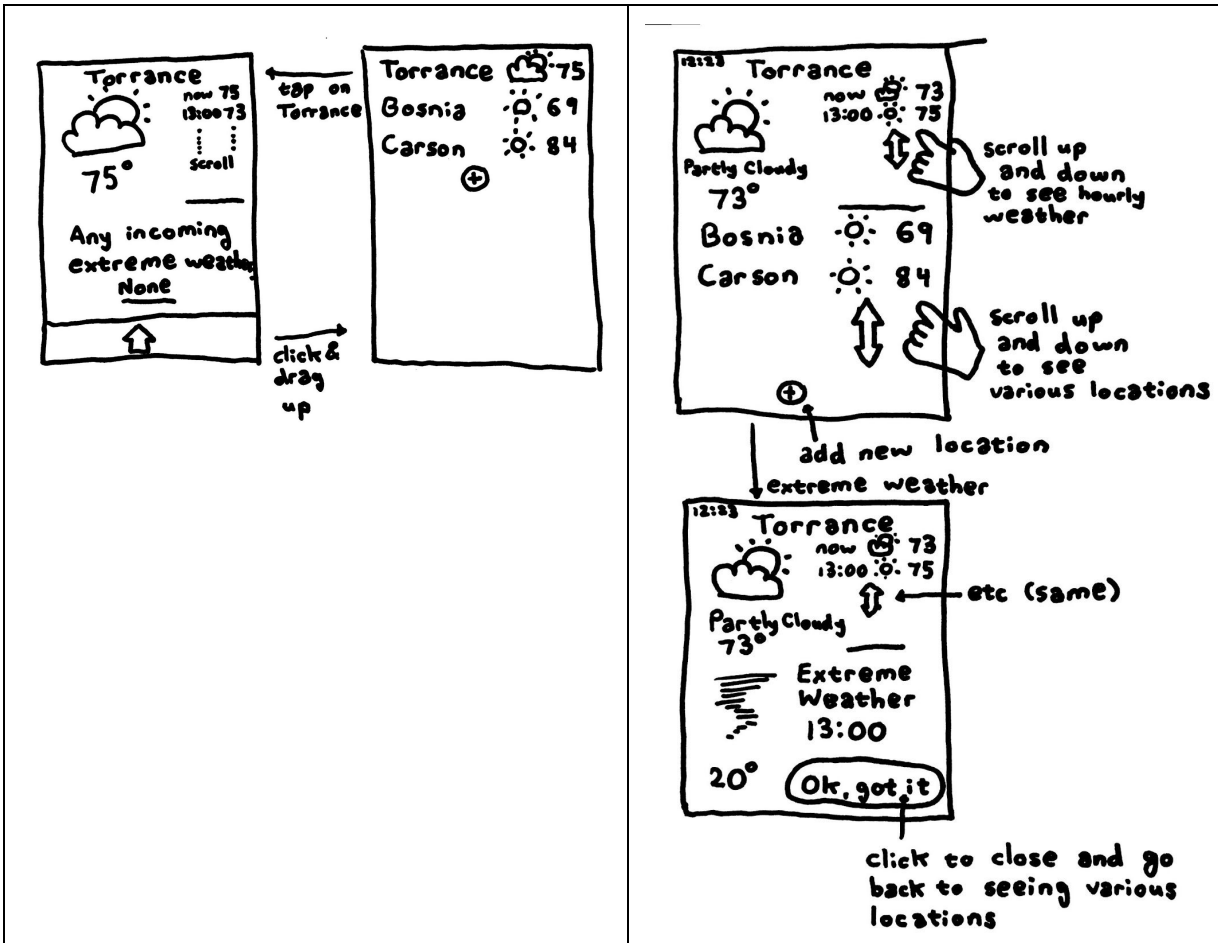
**Full Video: *https://youtu.be/D8Ut03oEcCc***

# Cycle I: Investigation and ideation

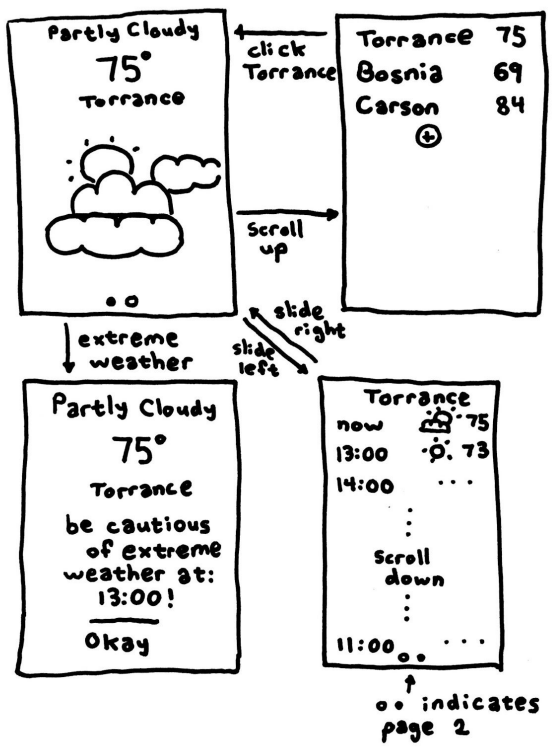
## MOOD BOARD

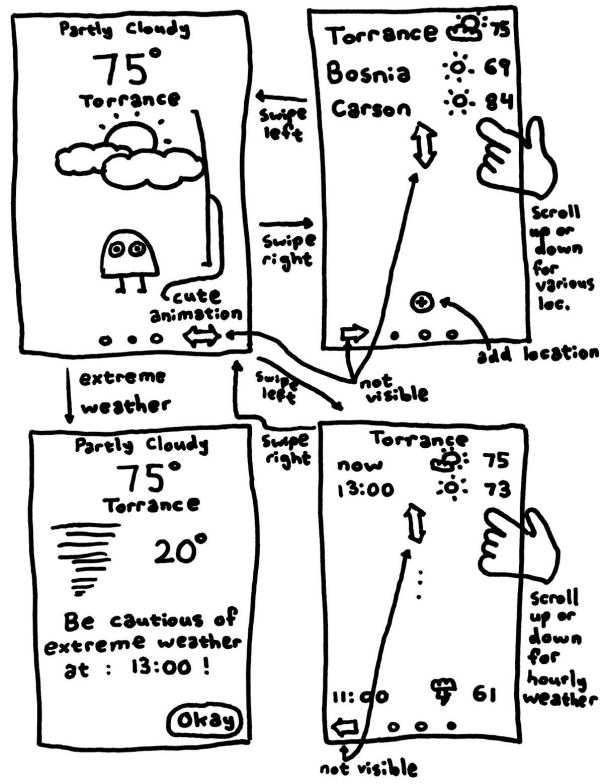

This was the mood board I designed to clarify to myself the approach I would want to direct my sketches and my idea towards.

## INTERACTION SKETCHING

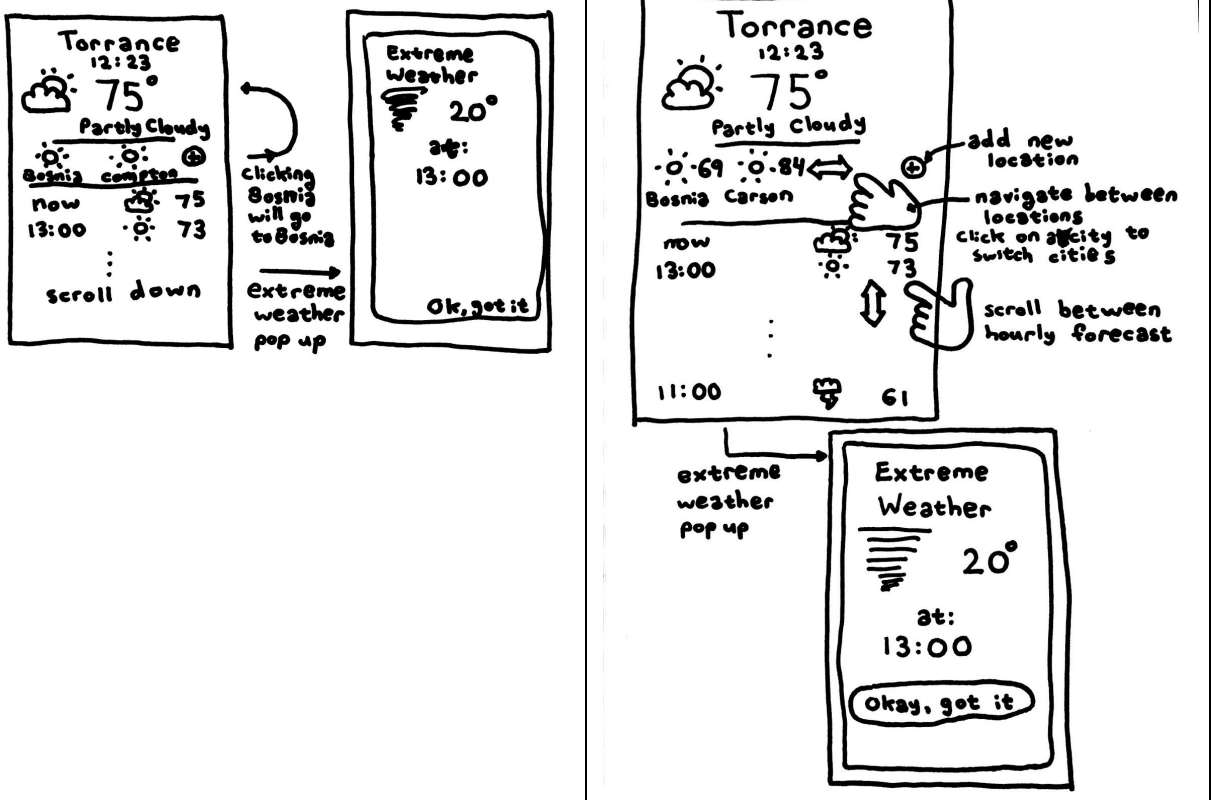



Initial Sketch #1 “Easy” - Hid the extreme weather notification so that it would only come up when there is an extreme weather change. In its place, I put the locations with their current weather.




Initial Sketch #2 “Slidies” - Instead of having to slide both horizontally and vertically to get to different pages, I stacked all the pages horizontally for simplicity. Instead of an aesthetic picture of the weather, it would now be an animation of the weather with a cute figure.

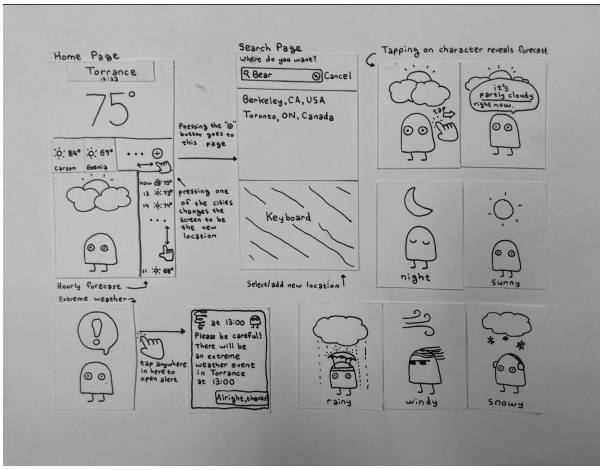


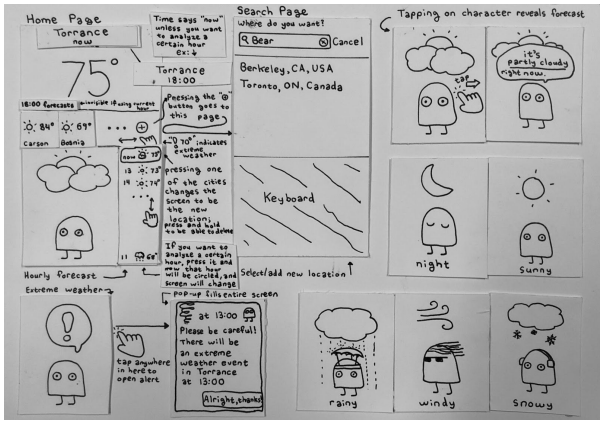

Initial Sketch #3 “Pop-up” - Added the temperature to the various locations’ forecasts so that it would be easier to compare cities. Pop-up button is clearer and harder to accidentally close out of the notification.

## SUMMARY

Using my moodboard, I took the approach of trying to make my designs as sleek and simple as possible. With my theme of calmness and serenity, I tried to avoid sharp edges or attributes that would come off as abrupt or surprisingly sudden, and went towards what I thought were smooth designs. As far as critiques go, some of the feedback that would help improve my application was to make the designs more intuitive, as some people felt that having multiple screens and pages over complicated the design and made my ideas confusing. Having three designs came to my benefit because I was able to use certain aspects from each of them to move on with cycle II; a simple one-page design with a friendly character was the approach I directed myself to follow.

# Cycle II: Low-fidelity prototype



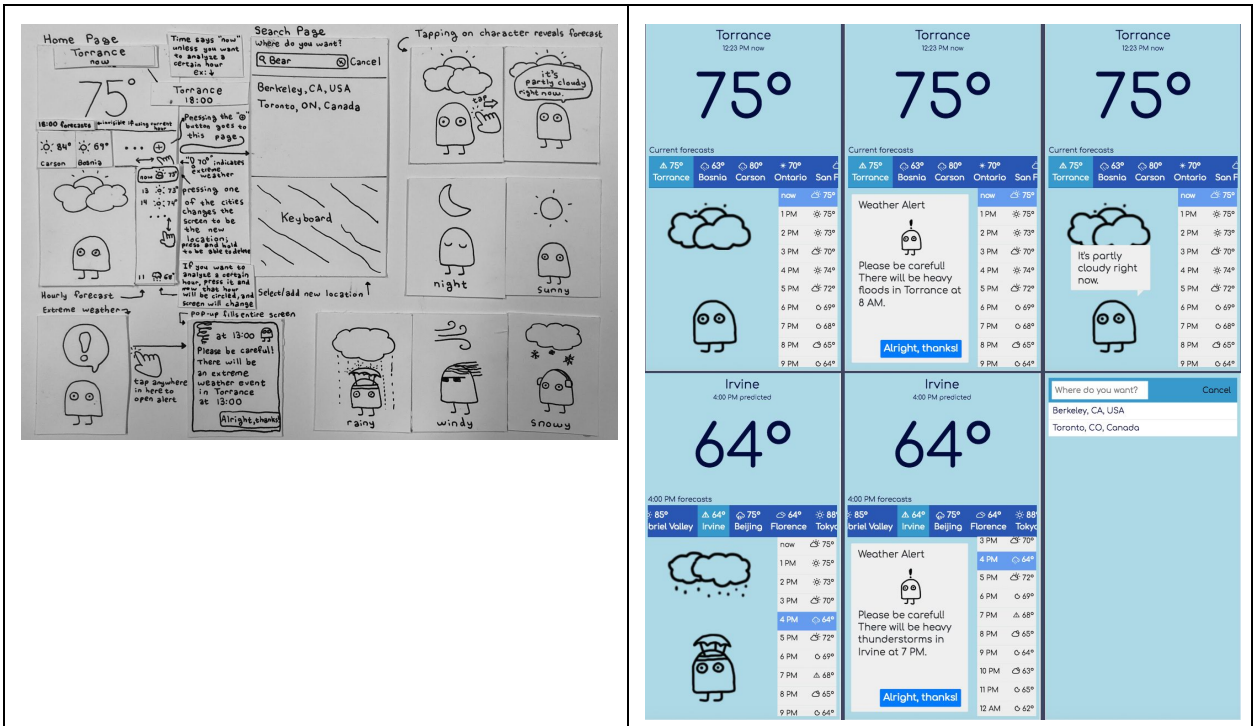




Weather and Forecast Teller (WAFT) wireframes - pre-studio wireframe (left) vs post-studio wireframe (right).

## SUMMARY

After receiving critique from my peers in cycle I, it was time to move on and create my first low-fidelity prototype. This was made as a wireframe and was a more detailed prototype that built off of my sketches from the first cycle. From the interactive activity done in class with the wireframe I constructed, I received multiple critiques. Critiquers seemed to enjoy the small character design I had in the bottom corner of the screen. However, my wireframe did not seem to be too clean and that may have come from my uneven proportions for my grid in the home page. A problem that I had with my wireframe was that I needed a more obvious notification for extreme weather, because it seemed pretty hidden. I also personally thought that I needed to resize the fonts and designs to help emphasize the visual hierarchy of the home page (I wanted to make the user's eyes direct towards the temperature as well as the character). With this, I made some clarifications and inputted them into my improved wireframe diagram.

# Cycle III: High-fidelity prototype




Weather and Forecast Teller (WAFT) - My post-studio wireframe (left) vs my high fidelity prototype screenshots (right).

## SUMMARY

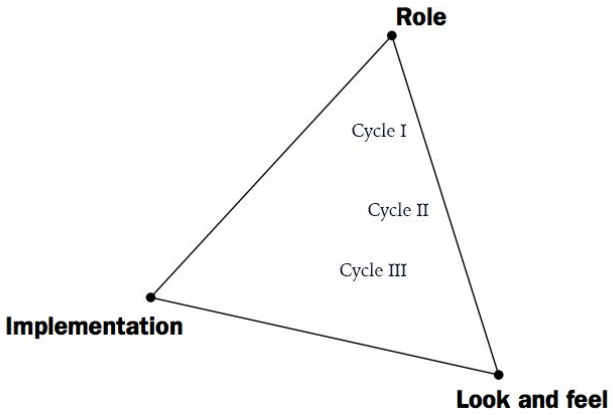
The final step was to implement my wireframe design into a full fledged high-fidelity prototype. I created this using HTML, CSS, and bootstrap, trying to mimic the same ideas I had with the wireframe design. Reminding myself from the previous cycles, I was still going for a simple and peaceful feel to it, so having the correct color scheme as well as sizing the elements properly improved the look of my design. Between Cycle II and Cycle III, I specifically was going to make the weather alert pop-up take up the entire screen, but I felt that having it just cover up a portion of the screen was sufficient and clear enough for users to understand. This cycle taught me a good amount of ins and outs to the coding languages and the significance of changing small things to significantly affect the final product.

# Reading and reflection

## READING RESPONSE #1

**Prompt:** Houde and Hill (1997) contributed a model to better understand and talk about the different functions of prototypes. Leverage this model to describe how your prototypes address different design concerns.

**Response:** Houde and Hill's model of prototyping addressed three main concerns: the role of the application, the look and feel of the application, and the implementation. This is how I saw my various prototypes fitting into the prototyping triangle:

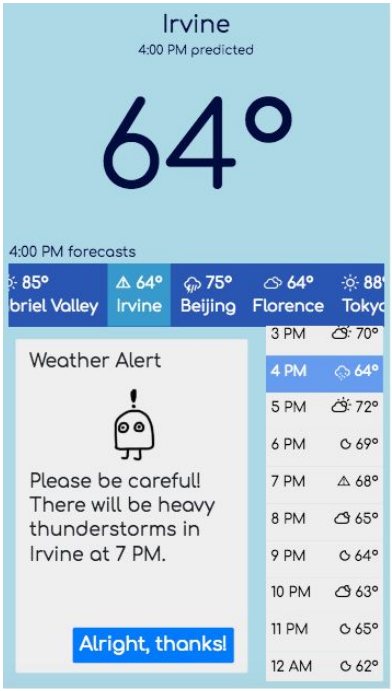



My prototype in Cycle I had the least impact for Implementation and Look and feel, primarily because it was a rough design and was only meant to portray the actions that the application would perform; because of this, it is perfect to be seen as a prototype which is analyzed for the role it plays - a weather app that is designed to be sleek and simple, and provides quick information for the user. The other two cycle prototypes are closer to Look and feel, since these are the prototypes that are focused on visual design and the size of elements. I felt that Cycle III had more so than Cycle II, mainly because it had many more options to explore such as color scheme and the fluid functions that are difficult to portray on paper. Because this was developed as a compilation of static web pages, I wouldn't see the cycles falling too close to the Implementation section. However, Cycle III's prototype does have some code that would accurately imitate how it would function in actual use, such as the linking to neighboring pages.

## READING RESPONSE #2

**Prompt:** *Universal Principles of Design* collects design guidelines in order to guide designs and discuss the effects of various design choices. Choose one screenshot of your application and two of the following principles that are relevant to that screenshot: Alignment, Color, Iconic representation, Legibility, Proximity, Signal-to-noise ratio, Similarity.

**Response:**




I feel like color plays an important role in the design of this application. I limited myself to the number of colors that I would add to the font and fill of certain elements, all with some sort of shade of blue. The colors in this screenshot are similar in feel, and that also contributes to the attribute about color combinations. Aesthetic color combinations come from adjacent colors on the color wheel which is why there are no sharp differing warm colors on the page.

Legibility is also a key aspect when creating a simple application for users. The font size for my text is fairly large because of the resolution of the screen I was going for (iPhone 8 resolution), so it was able to come out clear. The typeface I chose was sans serif because I wanted less edges to the text, and from my perspective this made it softer on the eyes and more relaxed. I was able to give a good contrast for the texts' backgrounds, where the lighter backgrounds have black text and the darker backgrounds have white text.

## Links

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|---|---|
| Design report Google Doc | https://docs.google.com/document/d/1lZYKkf2UxbiDjRV1IzwEooGOYNGyA_n5Gay_Z5c3kys/edit?usp=sharing |
| Github repository | https://github.com/cs160su18/p1-brianjho |
| Codeanywhere project | https://codeanywhere.com/s/l/5Vk5AQwvVw379Xd3IJn7jSEGq2cCFkT27JztWF1QARZ1901DZ4SQdiHLJIPkxaDl |
| Design archive pin | https://www.pinterest.com/pin/734227545475014551/ |
| Final video | https://youtu.be/D8Ut03oEcCc |