



Wind. Wave. Weather





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## Overview

Vela is a wind, water and weather forecasting app that is meant for water enthusiasts of all levels. It gives you access to the latest local forecasts and news, gorgeous, easy to read and detailed maps and an entire community of like minded people.

## Tools



## Role

User Research, Interviews, Information Architecture, Wireframes, Prototypes, Tests, Interaction Design.

## Timeline

April 2019 - December 2019

[View Prototype](#)

# Context

Vela was created as a requirement for Careerfoundry's UX Immersion course. Some of the specs detailed in the project brief were a mobile first approach to a water sports based forecast app that caters to beginners, demystifying complex charts and numbers that often stymie newbies just looking for a good day out on the water.

## Problem Statement

Users need an app that provides water, wave and weather forecasts in an intuitive yet aesthetic format and helps in making their day out in the water a memorable one.

We will achieve our threshold for the app when the reviews are overwhelmingly positive and the download rate is high.



## Objective

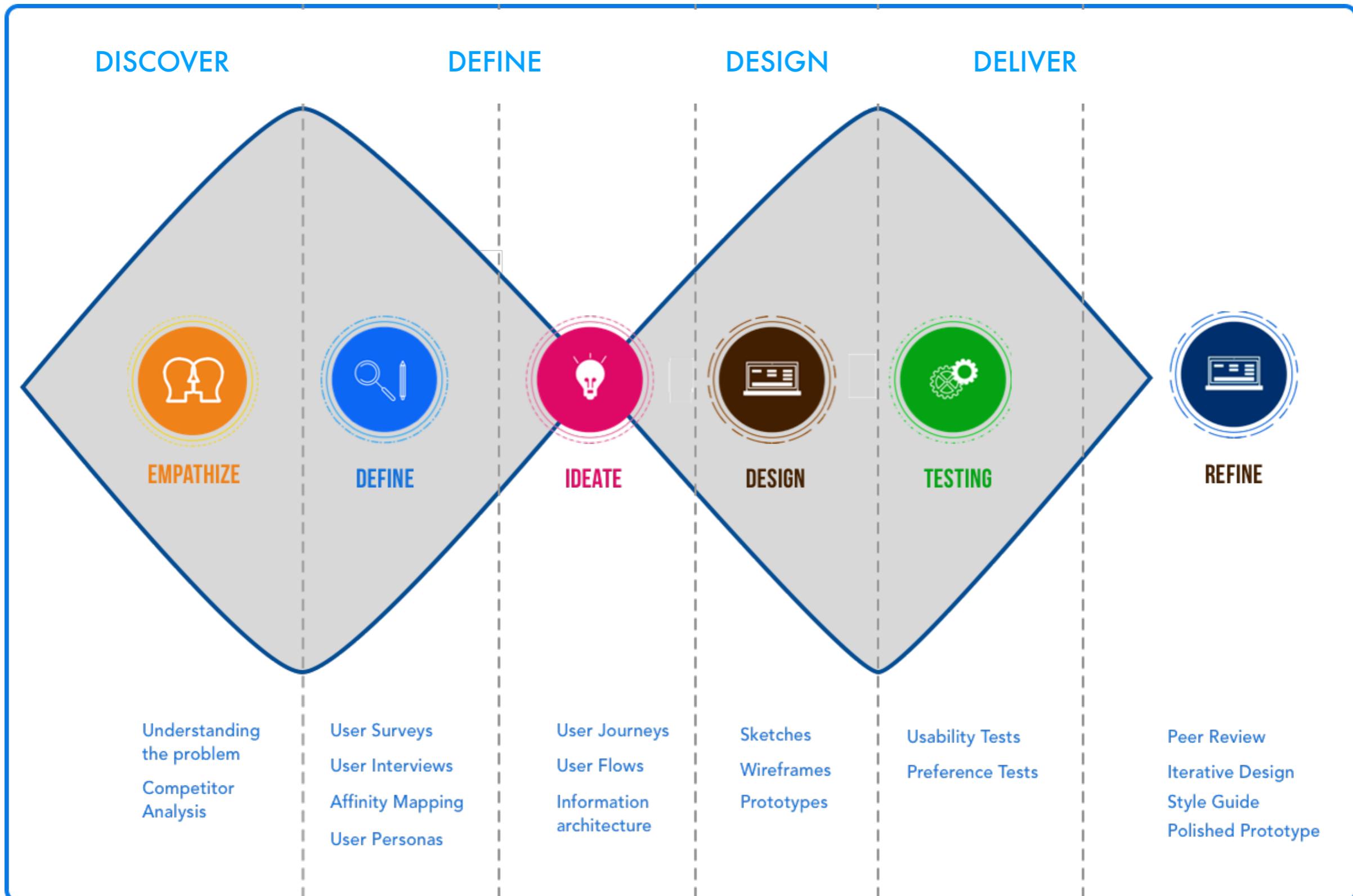
### Primary Goal

To provide a tool that safely guides and motivates beginner water enthusiasts to spend more time on the water.

### Questions to be answered

- ◆ What features do users really want in a water activity and forecast app ?
- ◆ What are proven design patterns that keep users motivated ?  
What patterns annoy users ?
- ◆ How important is community to water sport enthusiasts ?
- ◆ What are the most effective search criteria to keep the app personalized ?

# Approach



# What worked well

## Research

There are a couple of well established activity based forecast apps on the market. I spent a considerable amount of time researching them. I found patterns through Competitive Analysis that worked well and some that did not. I used user interviews to zero in on features that users really required in the app. The progressive onboarding option on Vela is an example of a good feature that follows proven patterns while being unique as a result of the research. It is detailed, accessible very easily and allows the user to gain a real understanding of some of the complex features of the app.

- ◆ Skills - User Interviews, Competitive Analysis
- ◆ Process - User Research.
- ◆ Solution - Spend time in the research phase finding patterns that work well and apply it appropriately. Continue refining till project delivery.

### competitor # 1



Windy

#### Strengths

Offers 4 leading models of forecasting to compare and take informed decisions.

Offers 35 different map layers to customize the forecast for one's particular needs.

Has a Community screen where users can ask questions and have them answered. Offers all of these features for free.

The map itself is nicely laid out, with a good number of locations and stations available. They also have webcams available to assess conditions.

Offers a nice write-up about the locations (of surf for example) and also gives the user a idea of its popularity.

#### Opportunities

A better organized Main menu and submenu would go a long way in making an app that provides good data all the better.

Strongly distinguishing itself from the similarly named Windy.app would eliminate confusion for potential users.

An organized, obvious and well designed help section and tool tips with recommendations for users would enhance the app for beginners.

#### Weaknesses

While it does offer a lot of data, the categorization of the layers into ski, water and flying is not obvious and it can take a while to realize there is a categorization of the submenu.

Help section is not easily accessible and is in the Q & A section in the form of bullet points all in one answer.

Layout on the Android app can be a little confusing, the menu is located on the lower far right corner. The menu itself is not very visible with the colors of the map layers making it a little difficult to see.

The phone app has all the layers the website offers, but there are no explanation or tool tips to make it easy for a beginner.

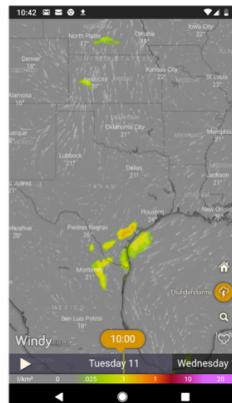
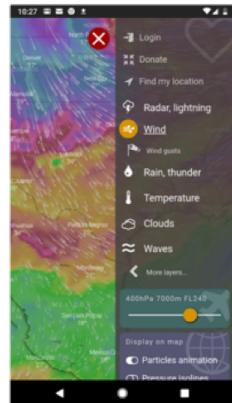
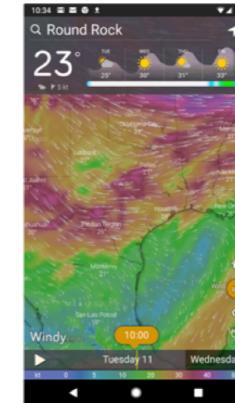
Lack of algae reports. Given the explosion of toxic algae blooms recently, this is an important feature to have for water activities.

#### Threats

Windy has a lot of apps nipping at its heels, like Windy.app, PredictWind, MagicSeaWeed that offer a good deal of weather information and help sections.

Having a clear marketing message rather than just 'We want to be the best forecasting app in the world' would go a long way in focusing their intent. Users can directly go to NOAA and other data model websites to look for reliable forecasts. Windy's strength lies in its ability to present data that is relevant for users free of cost. This should be the driving force of the marketing message.

The mobile app needs to be better designed to keep up with the competitors. The app is too congested and confusing to first time users.



### competitor # 2



Surfline

#### Strengths

Simple layout on the Home page, it is easy to find surf information for the location a user wants. Offers relevant spot forecast information in a well structured set of charts.

Live webcams are the best forecasting tools a surfer can ask for.

Fairly well organized content on the website in terms of menu hierarchy.

Help section is very well done, with instructive video tutorials on how to use the website's menu sections.

Really nice set of news articles and other relevant information pertaining to surfing.

#### Weaknesses

The real meat of the forecasting and content is for paid subscribers only, and the price is premium at \$9.99 monthly.

Even standard cameras have to be paid for after a week's use. The Android app does not have access to the cameras at all in the free version, at least for this user.

The best feature of the app, the camera forecasting depends on the reliability of the cameras, if a camera at a particular location is down for whatever reason, that USP is lost. There were multiple complaints of cameras being down in the reviews.

The advertising spoils the layout and aggressive pushing of the paid subscription can be an off putting experience for a beginner.

Lack of algae reports. Given the explosion of toxic algae blooms recently, this is an important feature to offer.

#### Opportunities

Add features like webcams to the Android app.

By establishing a organized and obvious pathway to the help section from the forecast charts, this app can be an invaluable resource to the user.

Make the advertising less obtrusive. Try to personalize the ad content.

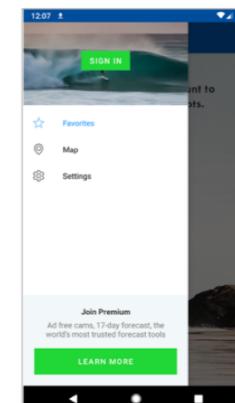
The articles on the Home screen, while excellent in content, feel like a monolith. Organize those better so the user really gains value from that feature.

#### Threats

Apps like MagicSeaweed, NOAA's app offer detailed weather forecast and are quickly catching up on webcam coverage.

The best content that this app has to offer has to be paid for and the aggressive marketing only reinforces the idea that the company is out for money.

Having been the market leader for a while, a sense of complacency can set in, constant innovation and adaptability is the way forward.



# What worked well

## Testing

I spent time on the test scripts it turned out to be well worth the effort. I got really good feedback from the testing, both usability and A/B preference testing. I was relaxed during the tests after the first one and was able to simplify the functionality of the app with progressive onboarding and change font sizes as required.

- ◆ Skills - Test scripts, Testing
- ◆ Process - Usability Testing, A/B Testing
- ◆ Solution - Organize time efficiently to write detailed Test scripts and conduct tests in a relaxed manner.

## Usability Test Report

### Issue 1 HIGH

Users were overwhelmed by the [Tips / Take a Test Run](#) section.

#### Suggested Change

Restructure the [Tips](#) section. Make it progressive and let the user actually use Vela and get a sense of all the features it provides.

#### Evidence

All of users expressed frustration at the amount of information on the [Take a Test Run](#) screens. A couple of users went through a screen and quit, while a couple did not browse any of the screens at all. One user repeatedly tapped the tips on the screens as he wanted to get going in using the app and expected guidance.

#### Conclusion

Overwhelming feedback on the shortcomings of the [Tips](#) section is well founded. It is an important feature of the app, as it allows the user to get a sense of how to use the app efficiently. If correct changes are implemented(making it progressive) and the user is encouraged to go through the Tips, this can be a very useful feature of the app and go a long way in user retention.

### Issue 2 MEDIUM

Users need a way to get back to a previous screen, especially in the [Settings Sub Menu](#) screens.

#### Suggested Change

Add a Back button in places where there is a chance for the user to be unable to use the Menu items to go back to a previous screen.

#### Evidence

Three of the users were stuck on the [My Ideal Conditions](#) screens and were unable to get back to the previous screen. While the path forward was scrolling down, this was not made clear and led to the deadlock on that screen.

#### Conclusion

Adding a back button the the screens in the Settings sub menus will solve the problem by orienting the user a lot better.

### Issue 3 MEDIUM

The [Map Marker Pop Up](#) information design makes it irrelevant to the user.

#### Suggested Change

Make the font bigger, it is so small at this point that it's impossible to comprehend on a mobile screen.

#### Evidence

One user brought up the Map marker pop up particularly during Home Screen feedback, while a couple of others mentioned their lack of interest in that feature during general feedback, mainly that the font was too small to be readable.

### Issue 4 HIGH

Users need a range of values for setting [My Ideal Conditions](#) and need the Scrolling to be made more obvious on the screen.

#### Suggested Change

Add another dot to the slider so users can have a range of values to set for desired statistics. Add a scroll indicator at the bottom of the screen to indicate scrolling.

#### Evidence

One user tried to set multiple values on the slider and was surprised that that a singular number was being used. This user was also mentioned that though he did scroll, it was not very obvious that the screen was scrollable. Two of the users did not realize that scrolling was an option and tried to find a back button.

#### Conclusion

Two values on some of the statistics make sense in the context of notifications. Making the fact that the screen is scrollable obvious in a way that is suitable to a mobile screen would be a good way to solve the issue of visibility of the feature and adding a Back Button will help orient the user better.

### Issue 5 HIGH

User was not able to view a detailed forecast, i.e look up a forecast for a particular time on the Home Screen.

#### Suggested Change

Make the font size bigger on the times in the [My Report](#) section. Clearly indicate that the [My Report](#) and [Quick Forecast](#) sections are tappable and will lead to a detailed hourly forecast.

#### Evidence

One user was able to locate the day of desired forecast, but had a tough time locating it for a particular time of day. Other users mentioned it would be nice to have a breakdown of the forecast in an hourly fashion so as to better pinpoint their use of the app.

#### Conclusions

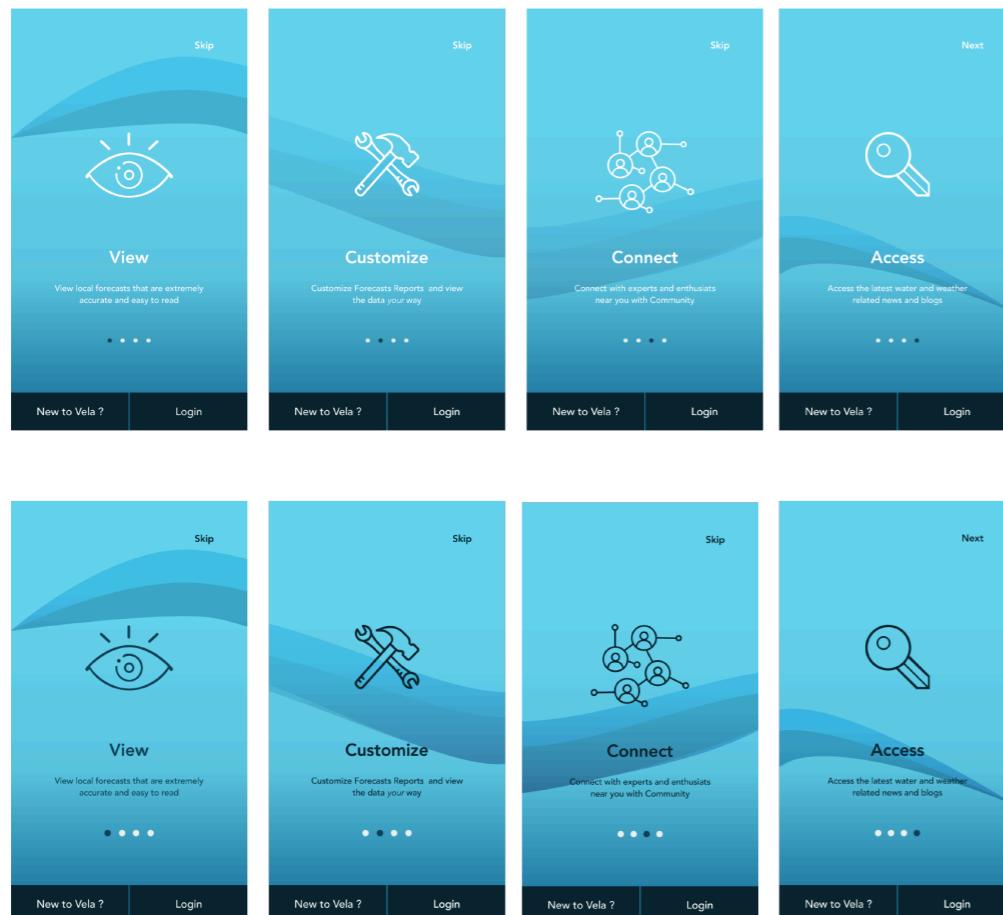
This is the main feature of the app, hence making it as easy for the user as possible to be able to get a detailed look at the forecast is priority. Adding a couple of screens with an hourly forecast and pointing this feature out in the [Tips](#) section should help with this issue.

# What worked well

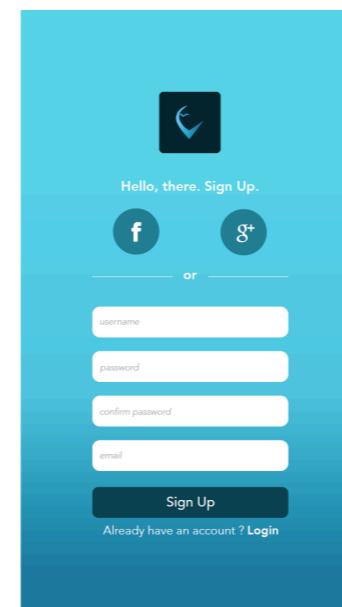
## Accessibility

I spent some time with meeting AA standards for Accessibility with WCAG. This resulted in changes in the prototype that made the app more accessible for anyone who wishes to use it.

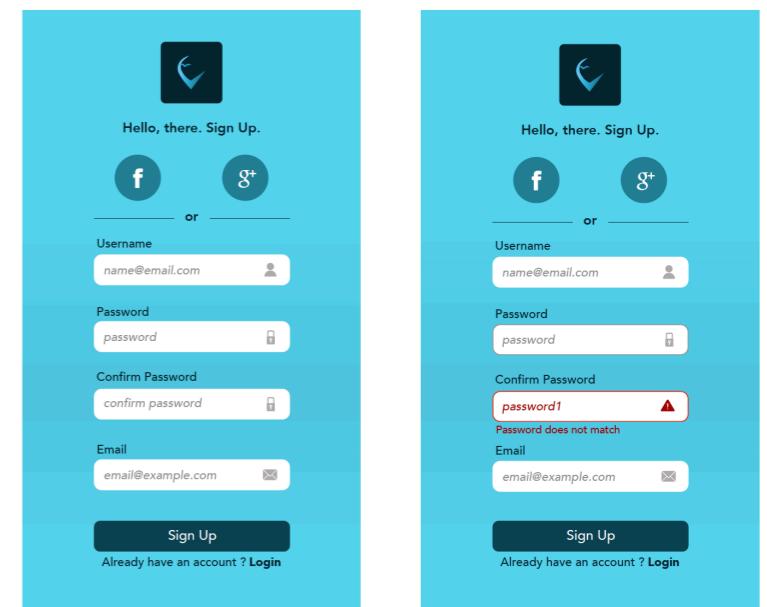
- ◆ Skills - Accessibility guidelines
- ◆ Process - Creative thinking, Visualization.
- ◆ Solution - Organize time efficiently to make changes to account for Accessibility or better yet, comply with the guidelines early enough to save yourself some effort.



Lack of contrast in colors and the size of the paging dots is the main issue with these set of screens.



Lack of contrast in colors, small text, lack of help of any sort for user input are all issue with this screen.



I changed the font color on the screen to have a 7.94:1 contrast ratio, which is beyond the 4.5:1 recommended by Guideline 1.4.3. I have added labels, placeholders & glyphs that should help the user with their form input. Font size has also been increased on the placeholders for better visibility. Finally, I have incorporated error messages so that user knows what the issue is when there is one.

# What didn't work well

## Use of Animation

The use of animation in mobile apps has to be carefully considered. While it works in a lot of scenarios, not all apps require it. The kind of animation that works for an app like Vela are transitions and gestures, not necessarily illustration based animation. While I did have these transitions in place, I also spent time with some illustrations, which in retrospect, I may skip.

- ◆ Skills - Motion Design.
- ◆ Process - Animation, transitions.
- ◆ Skill Gap - Getting carried away with applying animation.
- ◆ Solution - Understand the best way to add value with animation for a particular app.

## Organization of Data

I was new to the world of water sports and weather forecasts. I did a fair amount of research in the beginning about the subject matter of Vela and became a little overwhelmed by the amount of information I collected. I could have done a better job of organizing that data so I was more efficient with time when going to the DEFINE phase.

- ◆ Skills - Accessibility feature design.
- ◆ Process - Implementing accessibility after build of high fidelity prototype.
- ◆ Skill Gap - Applying good accessibility patterns in mobile design.
- ◆ Solution - Spend time on gaining knowledge of accessibility guidelines rather than implementing partially at the end of the project.

# Potential improvements

## Interactions & Gestures

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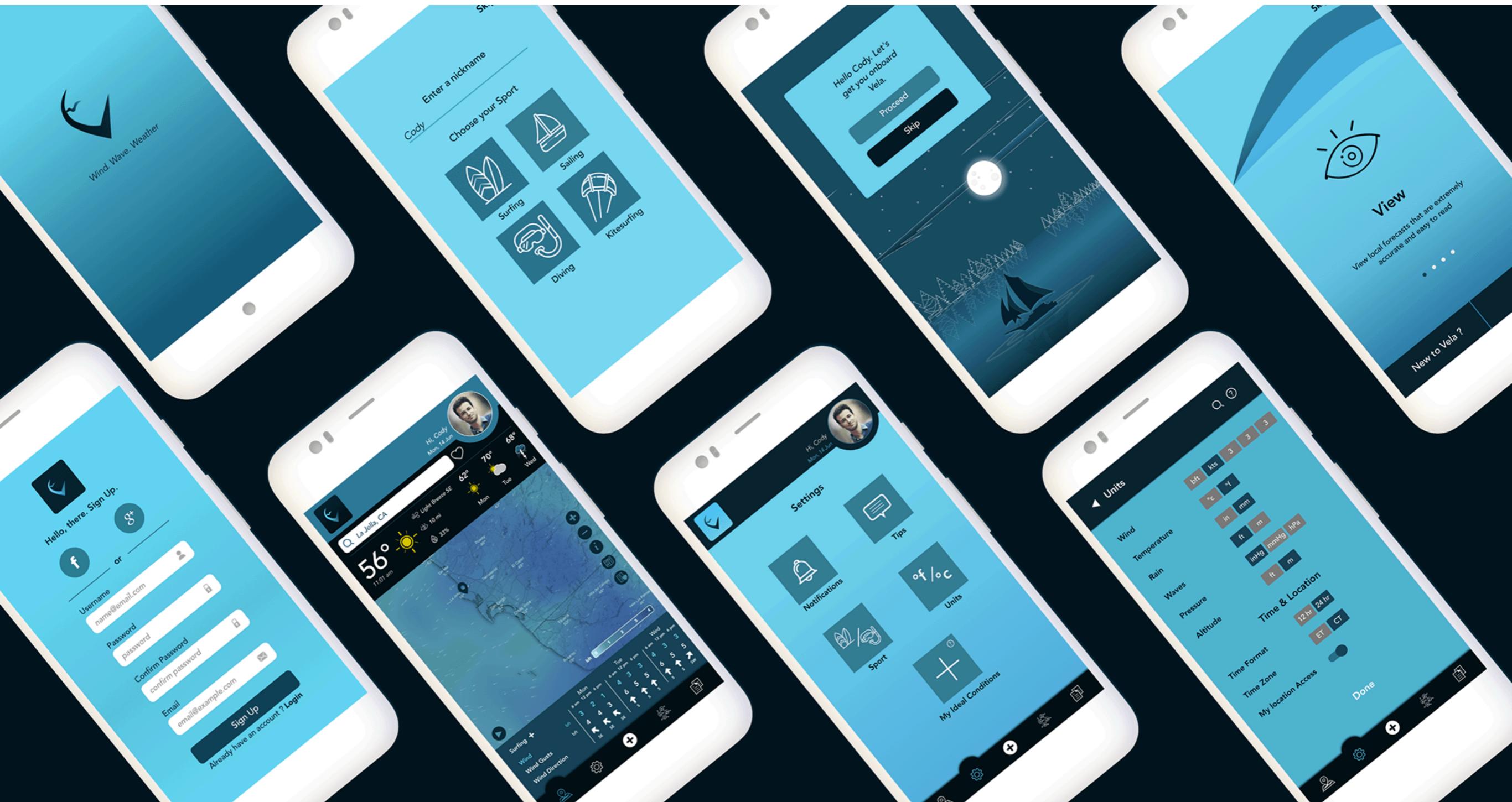
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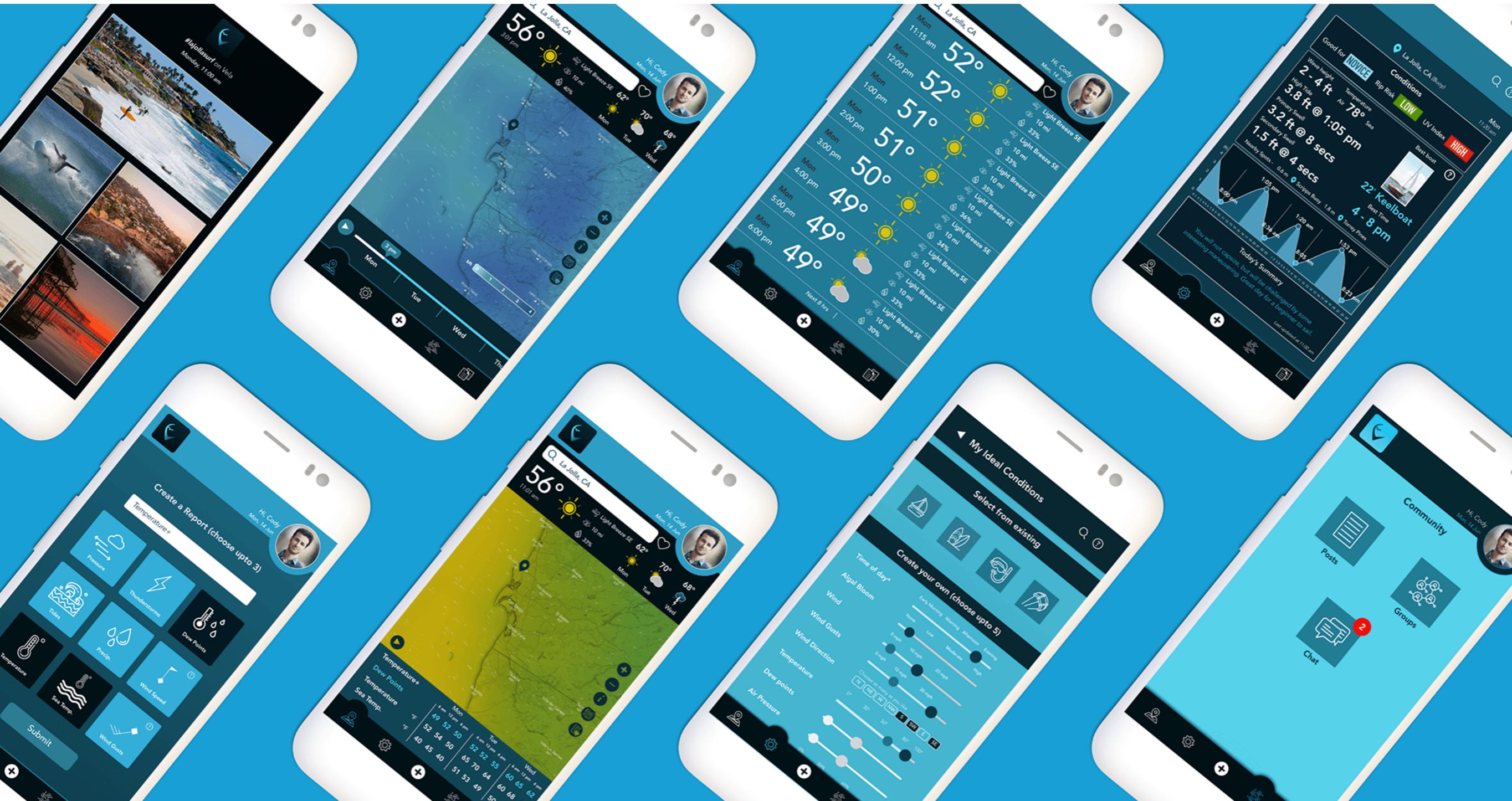
## Responsive Design

Although the project brief called for mobile first approach which was adhered to, I should still make sure I had at least some part of the interactive prototype designed for different screens.

- ◆ **Skills** - Responsive Design.
- ◆ **Process** - Using Grids and responsive design patterns.
- ◆ **Skills Gap** - Quicker implementation of responsive design with mobile first strategy.
- ◆ **Solution** - Gain more knowledge about efficient responsive design patterns and tools to be used to speed up the process.

# Result





## Final thoughts

Vela was my first foray into the world of UX Design. It was also my first foray into the unknown, the world of water sports and weather forecasts. Although I had subconsciously been working with research in my previous career as a Business Intelligence Developer, this app really opened up my eyes to the power of UX Design methodologies. The app is so much richer for the application of standard research practices and I am extremely happy with the way it finally turned out. I will continue to learn about better UX practices as time goes on.

[View detailed Case Study here.](#)

[Check out the final prototype of Vela here.](#)