

Mobile app: Gale

Weather forecasts for water sports



Role

UX / UI design

Duration

May-October 2020
(6 months)

Skills

Research
User Experience
Prototyping
Usability Test
Visual design

Tools used

Adobe XD
Survey Monkey
Optimal Sort

00. KICK-OFF

Project overview

Gale is a concept of the app which I create during my study at CareerFoundry. The app is designed for water activity enthusiasts, providing clear, simple and precise reports to help people understand and enjoy the weather and stay safe at any time.

01. UNDERSTAND

Problem Statement

Our water-sports enthusiasts need a way to have simple, clear information about wind, wave, and weather conditions at any moment because they wish to plan their water activities with confidence about the weather and stay saved.

Product goals

Provide beautifully displayed and easy to understand wind, wave and weather reports, forecasts and statistics for sailors, surfers, divers and any other water sport aficionado.

Basic App Feature Requirements

An onboarding page
A way to sign up and login
A profile area
A navigation menu
A display of wind, wave, weather conditions in real-time
Recommendations that can help users stay safe

Competitive Analysis

Once the problem statement was clear I started my research from competitive analysis of Windfinder and Weesurf. I analyzed their key objectives, marketing profile, overall strategy, created SWOT and UX analysis.



Windfinder



WeeSurf

Windfinder SWOT

Strengths

- 45000 water sports locations with real-time observations from more than 21000 weather stations worldwide.
- Detailed and accurated forecasts.
- Positive feedback on both apps stores: Google and iTunes.

Weaknesses

- In the free version, a lot of advertising appears on each screen of the app. Pro version available without ads.
- The complexity of the app: UX and UI.
- A lot of features don't work in the free version.

Opportunities

- Simple design of the app, which can be used by user less familiar with the professional use of the weather forecasts.

Threats

- Generic weather forecast which gives all necessary information but in a more simple way and for free (like Weather Live, Windy).

Executive Summary

Target Audience

- Anyone who is going to take water activity, like sailors, surfers, divers, kitesurfer, windsurfers, stand-up paddleboarding.
- The main audience will be between 16 and 45 years for surfers, paddle boarding and between 25 and 65 for sailors, divers.
- Our users are passionate about activity on the water (lake, sea, ocean).

Risk / Opportunity

- Risk is to create similar app to already existing.
- Risk is not to be known or to be lost around already existed apps.
- Opportunity is to catch the market by simple and clear UI and intuitive experience.

Competition

- Main competitors are Windy, Meteo Marine, Weesurf, Windfinder, WindHub.
- Generic weather apps like Weather (App store), Weather & Radar, The Weather Channel, etc.

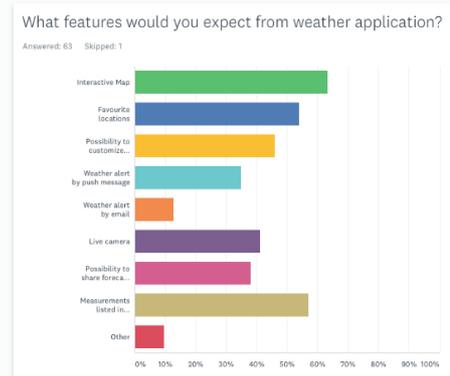
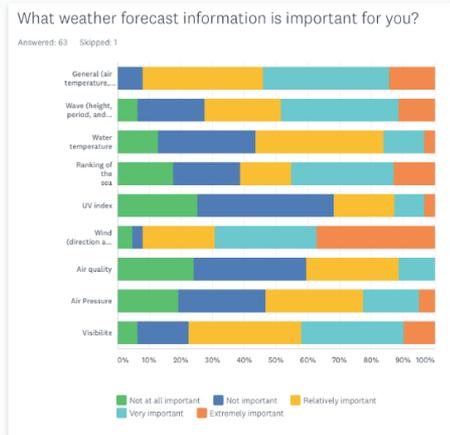
Conclusion

- Even the market already loaded with many popular apps, there is an opportunity to take our place there through clear (and beautiful!) representations of this valuable information, to help water sports aficionados have fun and stay safe.
- Marketing strategy will be a key in promotion of the app.

02. OBSERVE

Survey

As a first step of observe phase, I decided to make a survey to get quantitative data about users' needs and attitudes. I used SurveyMonkey as a tool and collect the results by the link in Facebook (French community of diving and sailing). 64 users took part in a survey.



Insights

- ✦ More than 70% check the weather on the phone, so the app is a priority.
- ✦ Wind, general meteo, waves and visibility are the most important weather parameters.
- ✦ Top 3 features are interactive map, possibility to save locations in favourites and weather measurements in different metrics.
- ✦ The main frustration comes with no clear information and navigation of the app.

Interviews

As the second step, I conducted interviews by Skype with 3 potential users, who had experience in diving and sailing. I followed 3 main goals:

01

Understand user needs in a weather app, what kind of information they need out from there.

02

Documenting user opinions on competing weather sites.

03

Determining which weather apps or sites users enjoy using or leave them frustrated.

The results of the interview I turn to affinity mapping and made 3 iterations to find behavioral patterns and insights.

Insights

- ✦ Wind, waves, currents, tides and meteo are the main parameters for divers and sailors.
- ✦ Users of the app can be professional, sportsmen or just a hobby.
- ✦ Important features: weather reports, maps, favourites and alerts.
- ✦ Search spots or locations in the search bar or on the map.
- ✦ Possibility to save spots and locations in favourites.
- ✦ Compare weather at different spots and locations.
- ✦ Different type of interactive map to have visual forecasts.
- ✦ The best precision of the forecast is one hour.
- ✦ Minimum period of forecasting is one week.
- ✦ An option to use app without login.

03. POV

Personas & Journey Map

Based on user research I identified 2 personas: sailor Maxime and diver Nicolas with different needs and goals. From this moment all what I do around Vela it is not just my thoughts or imagination. Every step is based on data and with focus to both personas. I used journey maps to understand their thoughts and emotional experience while looking for the weather.



Nicolas

Age: 50 y.o.
Location: Marseille, France
Status: Married, 2 kids
Nationality: French
Occupation: Owner of dive centre

About

Nicolas lives in Marseille. Every single day he spends on the Mediterranean sea. 2 times a day he or his team drive a boat to the dive spot. He dive 3-5 times a week with his clients or with his 2 sons.

Behaviour

- He usually checks the weather forecast 2-3 times a day.
- He uses weather forecasts to plan dives and take decision about the safety.
- He doesn't like to change the app he has a habit to use.

Frustrations

- He is frustrated when the app doesn't run properly after updates.
- He doesn't like to receive something he didn't ask for (like push messages, notifications, advertising).
- He is frustrated when he is not able to access to the app or find the information he needs.

Needs & Goals

- He would like to save spots in Favourites and have quick access to them.
- He would like to parameter the alerts of his favourite spots.
- He needs to compare forecast on different dive spots.
- He needs forecast precision of 1 hour.
- Current apps have many options and features, but in reality, he uses maps, favourites, alerts and meteo.

Experience level

Frequency of forecast control: (Scale: Few times a week to Daily to Few times a day)

Importance of the forecast: (Scale: Not at all to Relatively to Extremely)

Precision and accuracy of the forecast needed: (Scale: Not at all to Relatively to Extremely)

Device used: (Scale: Desktop to Mobile to Tablet)

Current source



"I need to use weather app like a tool - at any time to have a reliable data."

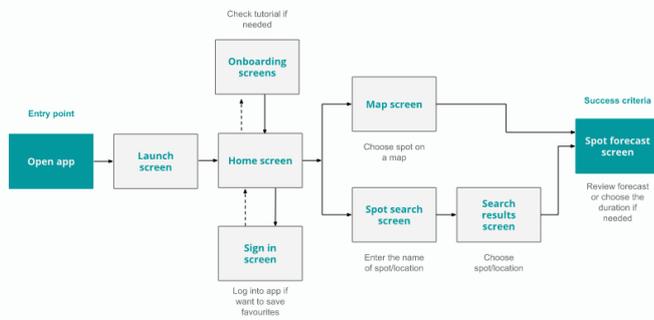
"Professional divers and sailors don't like to change because data is important and their safety depends on it."

	Age: 50 y.o. Location: Marseille, France Status: Married, 2 kids Nationality: French Occupation: Owner of dive centre Water sport: Diving	Scenario: Nicolas needs to decide what spot to choose for tomorrow diving with clients of his centre. There are 7 spots in his perimeter available. He takes a boat to reach any of them, so the weather conditions on the sea are very important for him.	Goal: Compare direction of the wind and tides to find the best safe spot to dive.
Phase	Preparation	Plan morning dive	Plan afternoon dive
Tasks	<ul style="list-style-type: none"> • Find a spot and register in favourites • Review the forecast 1 day before the dive 	<ul style="list-style-type: none"> • Open favourites • Define the weather parameters to compare • Review reports for all 7 spots in real-time • Decide where to dive 	<ul style="list-style-type: none"> • Open favourites • Review weather reports for favourite spots by wind and tides comparison for next 5 hours • Check the wind and tides on the sea in real-time
Thoughts	"If the weather is fine we will go to that spot and if not I will be able to reach another one"	"Sometimes I decide on the boat where I'm going to dive and the customer can be unhappy."	"The best is to have the wind in front of you like that waves are perpendicular to the wind and will be on the back by way back."
Experience	New day - new dive (Happy face)	Don't like to plan the last moment (Sad face)	Option to compare spots on one page (Happy face)
Opportunities	<ul style="list-style-type: none"> • Search option by map or search by list • Possibility to add spots to favourites 	<ul style="list-style-type: none"> • Option to filter weather parameters to control • Option to compare spots by defined parameters 	<ul style="list-style-type: none"> • Possibility to change the spot (Sad face) • Finally, the second dive is done (Happy face) • Hourly weather forecast • Option of alerts of the weather changes

04. IDEATE & PROTOTYPE

User flow

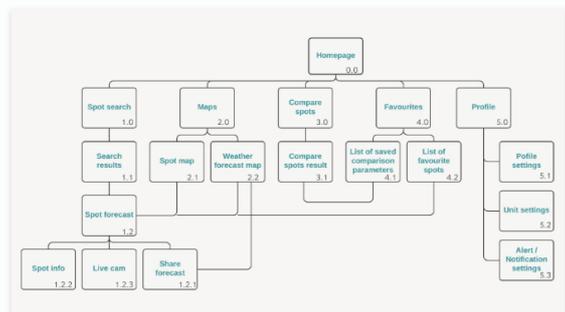
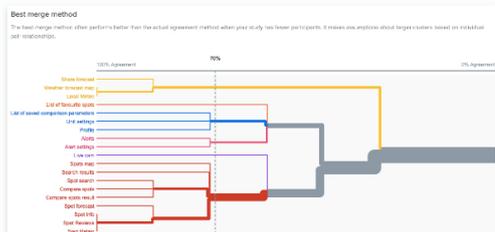
With help of Maxime and Nicolas, I was able to imagine how they can use the app and create user flows for the main tasks step by step.



Sitemap

According to survey users mainly check the weather on a mobile phone, so priority was given to mobile-first design. I decide to use co-existing hierarchies to give opportunity to the user easily switch between features. Keeping in mind all above I created a sitemap as a global view of the app screens and its connections.

I did a card sorting to confirm the right of my choice for the information architecture. I used OptimalWorkshop and collected 12 responses.



Wireframes and Prototype

During the design process, I had several iterations for my app. All of them are crucial and brought a lot of value to my product.

Changes from flow-fidelity to high-fidelity prototype I did based on the research results and my ideas. Then I performed usability testing, which helped me to improve the functionality of the app based on users feedback.

Next iterations were about visual design and assessability: what visual solution could work better for the app. Then this was tested and based on the peer's feedback I made an improvements.

Home Screen Evolution



Spot Screen Evolution



05. TEST

Usability Test

Usability test has been organized twice. In both cases the goals of test were:

- ✦ To assess the learnability for users interacting with the Vela app for the first time.
- ✦ To observe and measure if users understand the project, find it valuable.
- ✦ To confirm if the user understands how to complete basic initial functions such as logging in and searching for/comparing spot forecasts.

01

Mid-fidelity prototype test

Moderated in-person (4)
Moderated remote (2)

3 active practitioner of water activity
3 person without specific preference of water activity



All interviews scripts I turned to affinity mapping and find common patterns for observations, errors, negative and positive quotes. I use this as input for rainbow spreadsheet, where I evaluate each point (I measured errors by using Jakob Nielsen's scale), set up the priorities and defined an action plan.

02

High-fidelity prototype test

Unmoderated remote (4)

I use CareerFoundry Slack channel to engage peers for design collaboration and collect their feedback.



I received all comments screen by screen on Adobe XD platform, so It was easy to set up an action plan and make improvements immediately.

Observations	Errors	Negative quotes	Positive quotes
<p>I think can be good to combine several layers of the map</p> <p>Will it be only for bad weather of if nothing special, what will be there?</p>	<p>Not possible to come from login to sign up screen</p> <p>Was struggling where to click to open filter parameters.</p>	<p>Why do you have 2 time search and favourites</p>	<p>I like that there is minimum info, but only what I need about the forecast.</p> <p>Its explain very well features of the application. It is clear and short (onboarding)</p>
<p>I would like to click Budapest to open a detailed forecast</p> <p>How can I see the forecast for the next day</p>	<p>She don't see google account button.</p> <p>To compare my fav spots I will go to my fav</p>	<p>This typeface for detailed forecast is too small for me to read easily.</p> <p>What does mean this alarm sign (favourites)</p>	<p>I like that app proposes to sign up with Facebook and Google and that this is on the top of the usual process.</p> <p>For search, I like that there are links to spots near me and previous search.</p>
<p>Can be good in edit mode to change places of the spot, not only delete.</p> <p>For me not clear what are the numbers and colour if there is a relation, how can I read that</p> <p>I don't understand the meaning of the lines (fav screen)</p> <p>I have this small red indication 1, someone what to be my friend already or I have a notification</p>	<p>On the compare results page Back to home doesn't work.</p> <p>From interactive maps fav icon doesn't work.</p>	<p>I don't understand why do I have cancel button on the search.</p> <p>Parameters - why they are here, I don't understand what to set up (spot screen)</p> <p>It is not interesting to have weather 2 hours ago</p>	<p>There is another sign close to Budapest. Probably the app double that I'm in Budapest.</p> <p>Back to home and cross have the same function, probably no need to double</p>

TOP3 issues - Mid-fidelity prototype test



01

Issue: Not clear how to check the forecast for the next days.

Action: Add daily forecast on the homepage and the spot screens. User can see a short preview of the weather forecast and also click on the day and see more details.

02

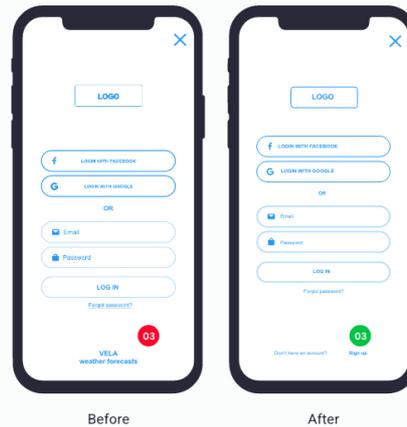
Issue: Double icons for search and favourites feature on the home page.

Action: delete double icon for search; move the favourite icon close to the name of the spot on the right side.

03

Issue: Not possible to get from login to sign up screen.

Action: Make connection between screens and processes by link on the bottom redirecting user to correct place.



TOP3 issues - High-fidelity prototype test



01

Issue: Meteo part of the screen feels cramped

Action: I moved Icon to the left and temperature to the right. Moved safety alert to this area and removed its borders.

02

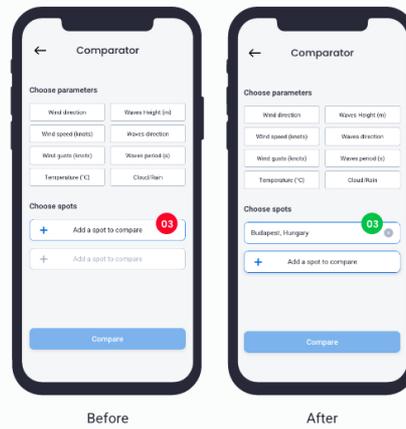
Issue: Alert is looking like a button, but it is just information

Action: delete a border, change colour text and move to the weather information to be hierarchically visible with the most important information.

03

Issue: Clicking «add a spot to compare» open empty forms, but users expect it prefilled with user location.

Action: Add current location to compare screen with option to change it.



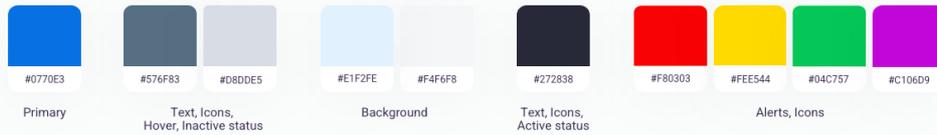
Before

After

06. VISUAL DESIGN

Visual design (Style Guide and Final mockup)

Colors



Typography

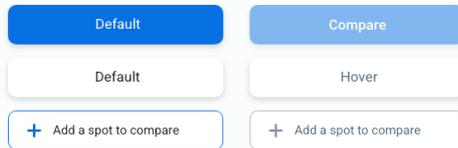


Logo



UI Elements

Large Buttons



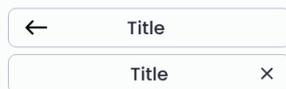
Small Buttons



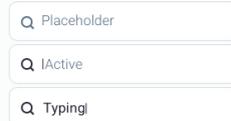
Other Buttons



Navigation Bar



Search Bar



Paginations Dot

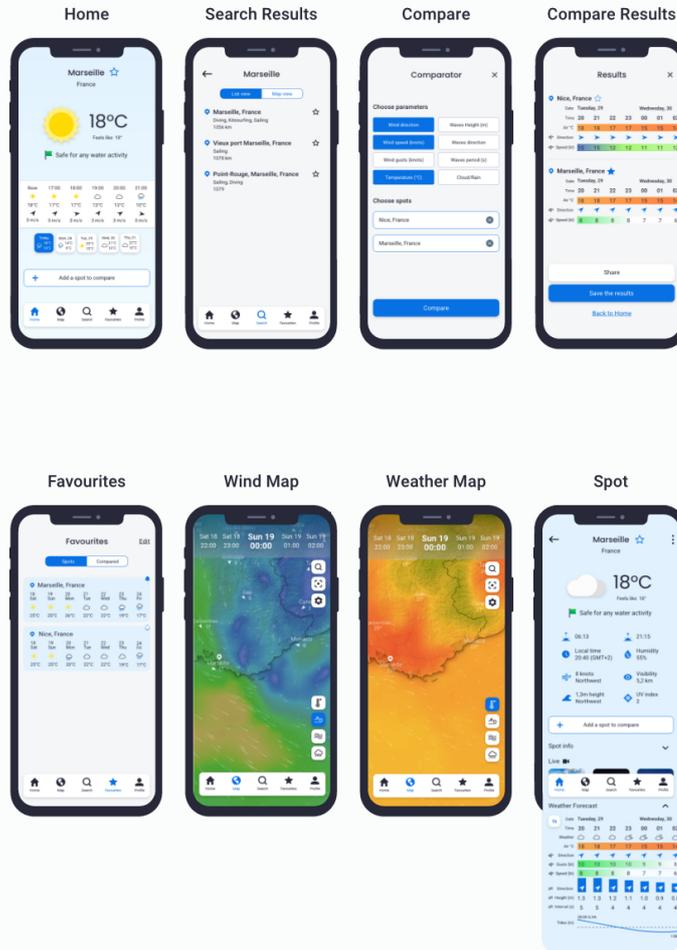


Segmented Control



Icons





07. LESSONS LEARNED

It was important to make a proper research and define personas with their journey map. It gave me a clear understanding of needs and expectations. This way the ideation phase was smooth and fun, but at the same time very productive and based on data.

Iterative process was the best way to keep wireframes on the right way. Important to test each decision and iterate based on the users input and always keep in mind that "you are not a user". Visual design is aimed to support usability and user experience.

Credits

Photo by Alexander Andrews on Unsplash.
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