



Design Challenge

OVERVIEW

A travel company which has a large portfolio of tours across the world that people can book, is looking to grow their customer base but don't know how to make sense of their data.

GOALS

- Create an interactive data visualization that enables someone at the tour company to visualize their tour bookings.
- Enable the user to view their information yearly, monthly, weekly, and daily.
- Enable the user to experiment, visually, with the ability to increase advertising spend for tours which are not receiving enough traffic.



RESEARCH

To get a better idea of how customers might want to view their information, I gathered reviews from three main analytic tools used by businesses.

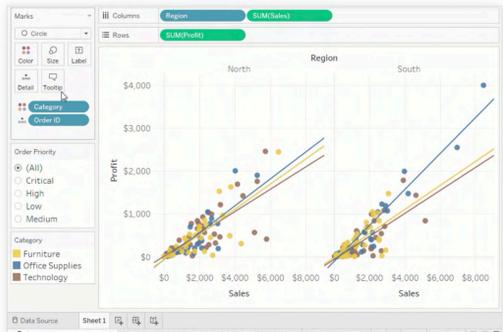
Google Analytics



Google Analytics is one of the most common tools that any website owner can use to track and analyze data about Web traffic. You get to see what keywords are bringing the most visitors to your pages and what aspects of your designs are turning them off. It's design follows material design guidelines, making it easy to use and learn.

Tableau

Tableau's live visual analytics allows for unlimited data exploration. Interactive dashboards give business users the ability to perform fairly complex data visualization in a very intuitive, drag and drop manner. The user can highlight sections and drill-down into charts without extensive skills or assistance.



Looker

Looker can connect to a wide array of data and sources to make several company departments more efficient with quick access to relevant data. Allowing to quickly find, filter and sort data to work with it more efficiently. The overall user interface is clean and allows us to navigate and use different sections in a simple and smooth manner. The process of saving data is done with minimal steps.

The initial configuration and development of Looker requires time, attention and work. Configuring the program to access your data requires a large amount of programming, troubleshooting and general work of the data science team.



USER'S MENTAL MODEL

The user wants the flexibility to turn all of their collected information into an easy-to-understand report that gives them the insights needed into their business. When they are equipped with the necessary knowledge, they are able to make decisions on what changes they need to make in order to improve their business.

DESIGN APPROACH

After having a better understanding of the problem domain, users' mental model, and similar approaches to data visualization, the next step in my process is to define the system of real-world objects that make up the user's mental model of the problem.

This will allow me to ensure the anatomy of every object is mapped before sketching, wireframes, interaction design or visual design begins.

I do this, by following the Object Oriented UX method, which roots every interaction in a well-defined direct object.

Objects are derived directly from the goals of a system, and goals should be derived from research.

Goals

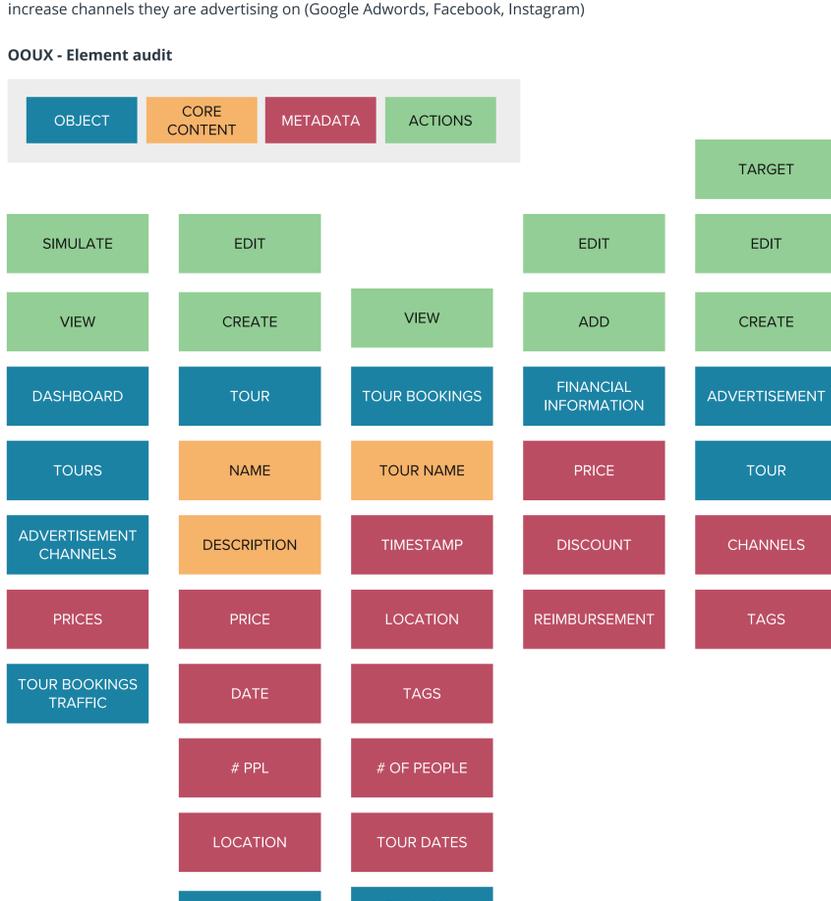
- Create an interactive data visualization that enables someone at the tour company to visualize their tour bookings.
- Enable the user to view their information yearly, monthly, weekly, and daily.
- Enable the user to experiment, visually, with the ability to increase advertising spend for tours which are not receiving enough traffic.

Things to consider

Each tour sold has a tour name, timestamp, location, tags, number of people booked, date of tour, and financial information (price, discount, reimbursement, etc.) captured.

Users might do a variety of different things to impact sales of their tours: Reduce price, offer a discount code, rewrite the tour's description, increase spending on advertising, increase channels they are advertising on (Google Adwords, Facebook, Instagram)

OOUX - Element audit



Wireframes

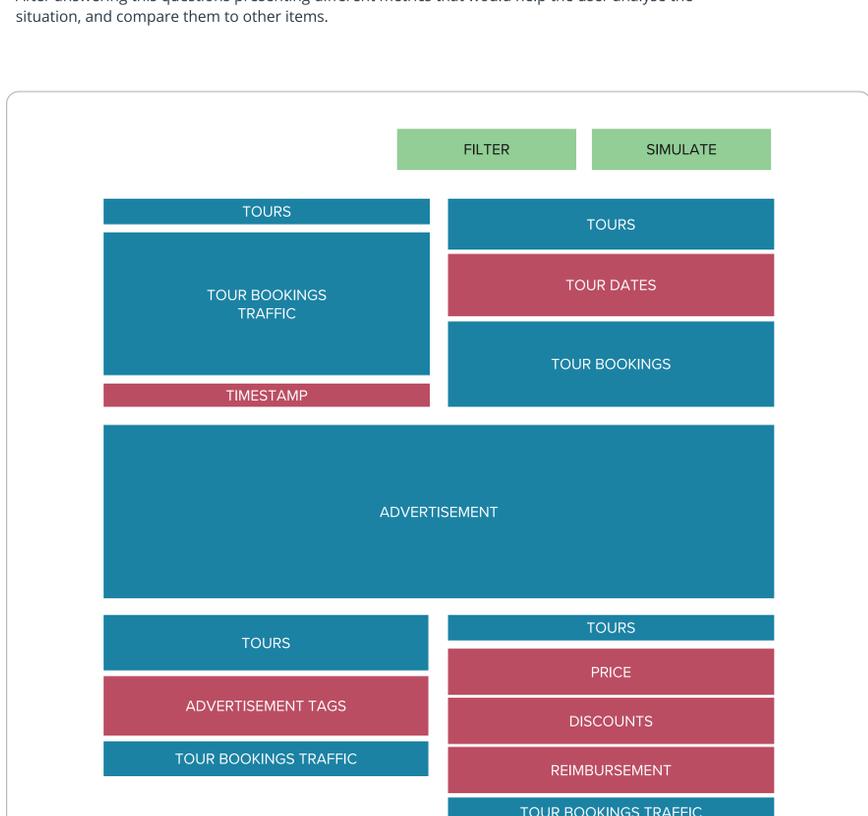
The OOUX element audit identifies the needs for the dashboard and helps narrow down the components needed. When working on initial wireframes details for each element is defined finding the best placement and hierarchy of elements to answer the questions needed to achieve the goal.

The goals guided the decision on how to group the different elements. Asking myself what elements the user might need to answer the different questions the user would have while trying to make sense of their data.

"My Berlin Zoo Tour booking went up by a significant amount last week, why did that happen?"

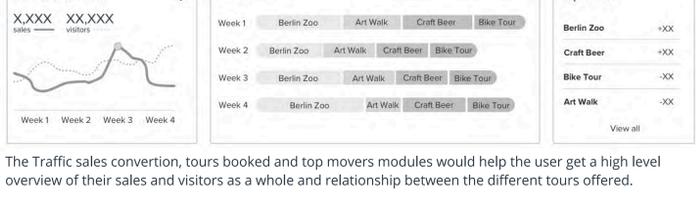
First, the user must be aware of this change, so a visual representation is needed.

After answering this questions presenting different metrics that would help the user analyse the situation, and compare them to other items.





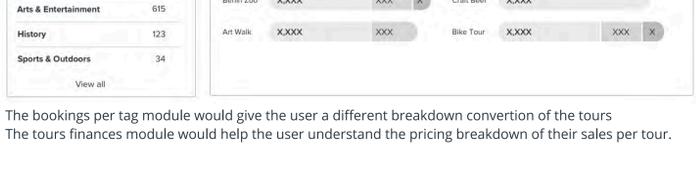
MODULES EXPLORATION AND COMPOSITION



The Traffic sales conversion, tours booked and top movers modules would help the user get a high level overview of their sales and visitors as a whole and relationship between the different tours offered.

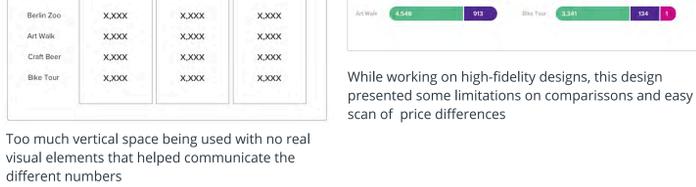


The advertisement conversion modules would help the user understand the impact the different campaigns are having across the different channels, comparing click through rates and conversions.



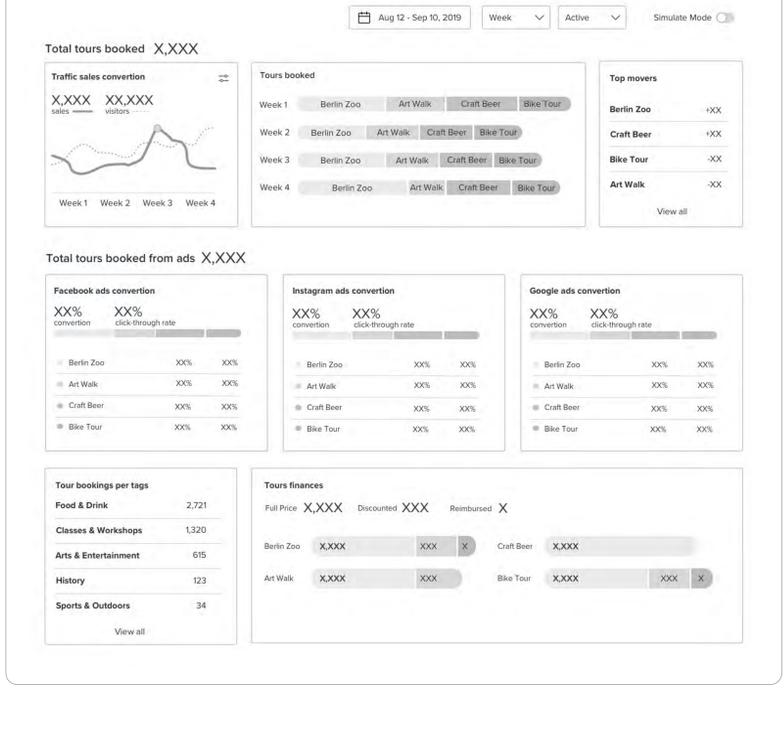
The bookings per tag module would give the user a different breakdown conversion of the tours. The tours finances module would help the user understand the pricing breakdown of their sales per tour.

Understanding the finances, presented some visual challenges, below different explorations and their constrains

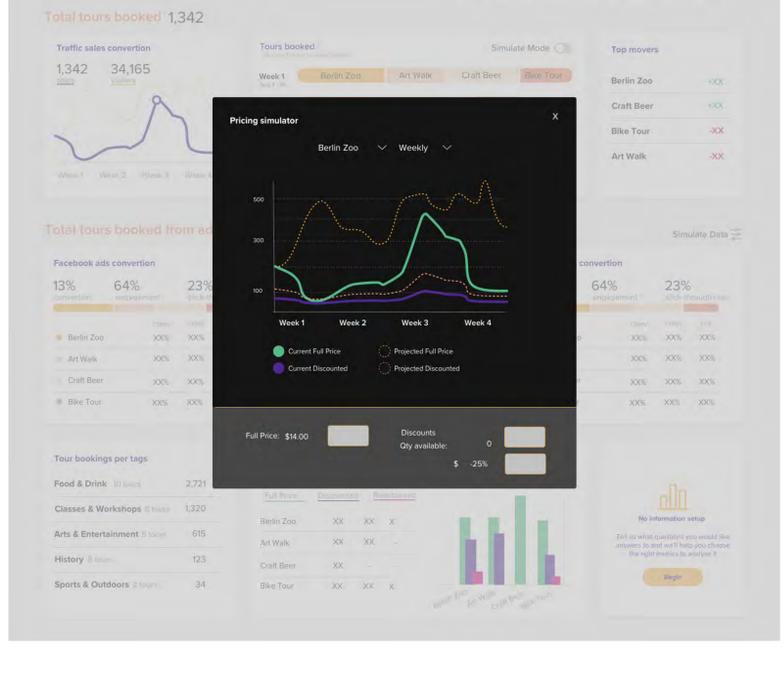
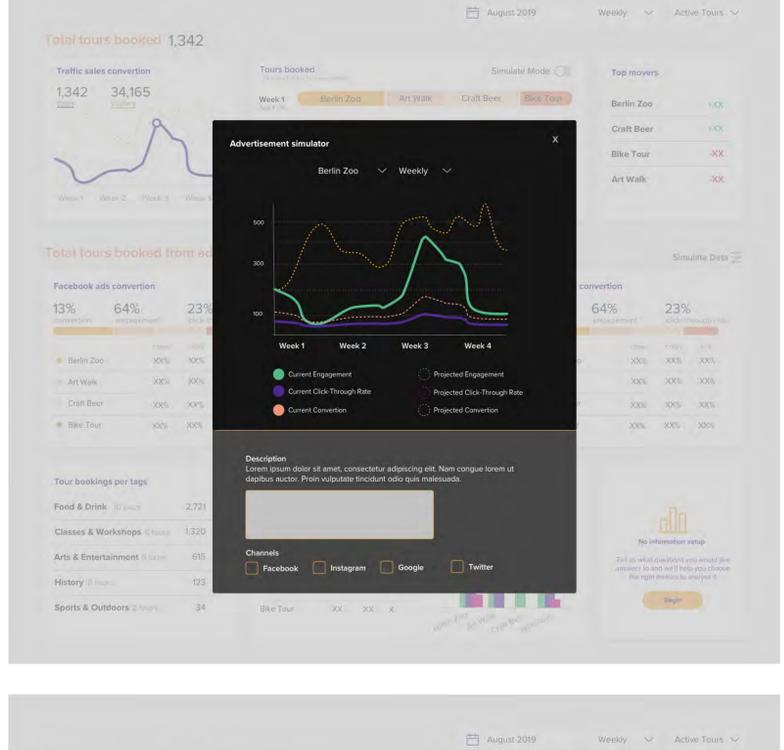
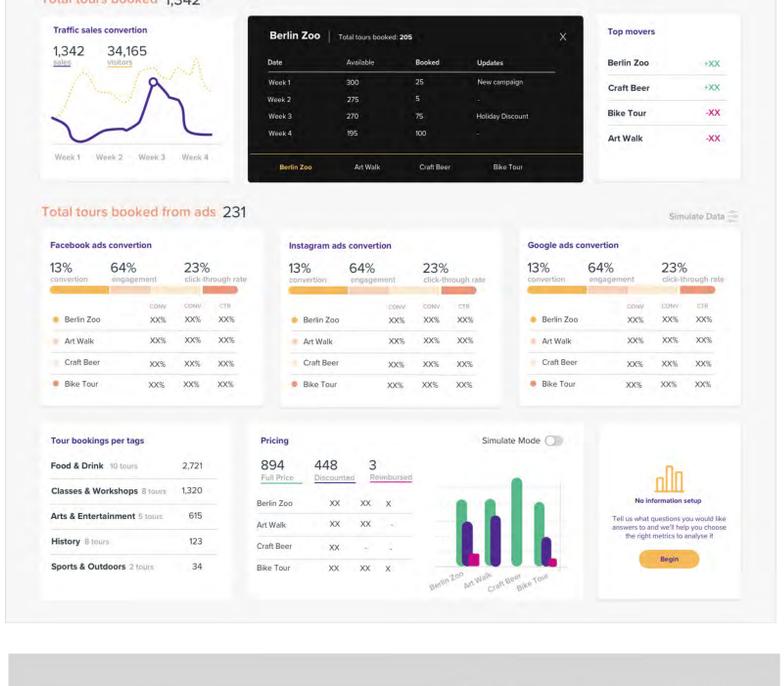
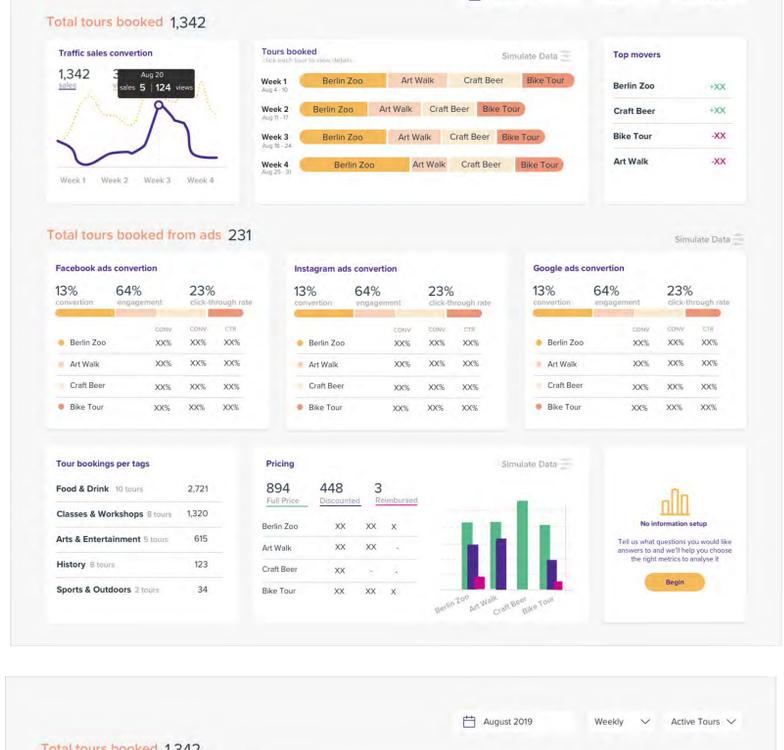
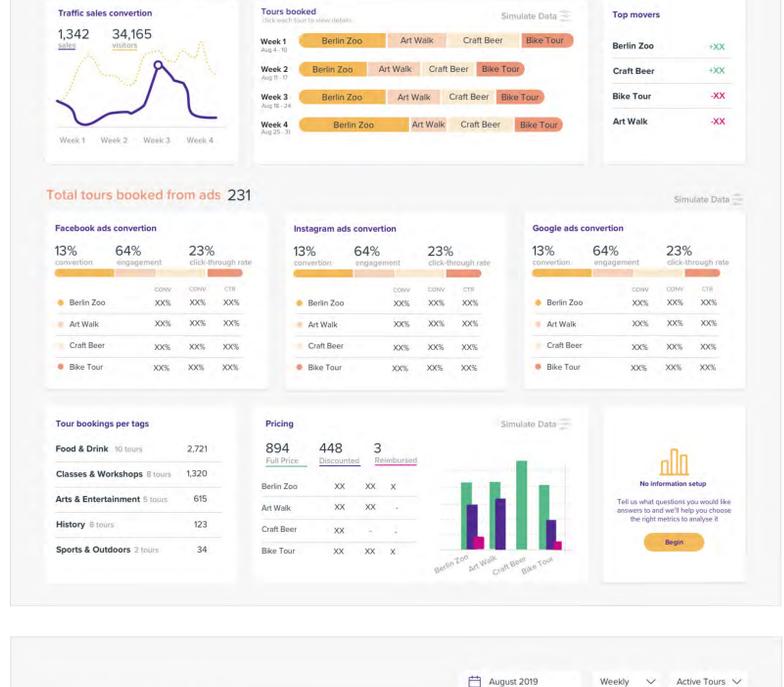


While working on high-fidelity designs, this design presented some limitations on comparisons and easy scan of price differences.

Too much vertical space being used with no real visual elements that helped communicate the different numbers.



Hi-Fidelity Prototype



As I worked on the high fidelity designs, I adjusted the presentation of some elements based on interaction decisions that would make it easier for the user to digest their data.

View InVision prototype here