Artifacts - Born from an idea to provide the Berlin creative and art scene with a web app to make borrowing artists equipment easy and accessible using its own currency, the product concept has quickly developed into a platform for buying and selling second-hand items, as well as giving and obtaining them for free, thanks to critical user research and survey. Artifacts allows users to post, search and manage items and to contact the current owners.

In addition to functionalities such as user login via an existing Google account, an extensive search mask for finding items and an editable user profile, Artifacts also allows users to create and delete their own items and save favorites. With the connection to a Google Firebase Realtime Database the information is stored securely and can be retrieved at a later session.

In the summer term 2021 of TechLabs Project Phase our team of 3 UX-Techies and 3 Front End Web Devs actively applied and deepened their acquired knowledge, gained while TechLabs Academic Phase, and developed a functioning, responsive and user friendly prototype, while having fun!

Problem - Berlin is known as the cultural capital of Germany. According to official statistics, there are over 20,000 registered artists currently working and living in Berlin, and more than 160,000 people are employed in the cultural and creative sector. We see a need for artists and creatives to exchange resources and collaborate with each other. Meanwhile, there are some online platforms in Berlin for equipment rental (e.g. Beazy or Ebay Kleinanzeigen) and for collaborations (e.g. Crew United and Schauspielervideos), but they are mostly catered towards the filmmakers. There is a lack of interdisciplinary platforms to pool together artists and creatives in different fields. As we see a growing trend for cross-disciplinary projects and hybrid forms of art-making, we feel of course a need to build a more centralised platform for our potential users.

We did some quantitative and qualitative research and found out that people are most interested in selling and buying items and equipment from fellow artists, and also finding free items and giving them away for free. Renting equipment is not the most popular functionality since people generally would not trust other people with their equipment and they would rather hire from a secure rental company. On the other hand, another major finding is that potential users are also interested in finding and offering services (collaboration & networking). Therefore, we decided to shift our project from a rental-based site to an all-encompassing platform that allows users to buy/sell/give away items as well as offer services to each other. Based on our research and also interviews with creatives and artists of different ages, fields and backgrounds, and levels of experience, we created different personas and user stories.



Andrea is a young professional.

She graduated from film school 1 year ago and is currently pursuing a career in directing. She uses the platform in order to gather experience and build a portfolio. Hence, she would use it to offer her services and gain some connections.

She wants to find people who are willing to **collaborate with no payment** and she also **doesn't have** much of the **equipment** needed for those projects herself. Hence, she would use artifacts to search for cheaper equipment she might need to projects.



Sofia, 23 Opera student and performer

Sofia is a opera student and performer.

She performs live or records music as her job, but she is also a full-time student. She often needs help from other musicians and does not have a budget for professional equipment she needs as well as staff. Therefore, she would use Artifacts to connect with fellow artist who would help her with her music as well as find free equipment that other people are giving for free.

Right now, she turns to her classmates for help, but she wants to build a community of musicians in Berlin that would help each other.



Stefan, 45 Photographer and painter

Stefan is an established artist, with more than 20 years of experience.

He is a professional photographer and painter, and has a lot of knowledge about the industry. He loves the art community and wants to meet fellow artists, as well as offer his services on the platform. His speciality is model photography, so he wants to do some freelance work on the app and help fellow artists out for a small fee.

He also has a lot of equipment he does not use anymore, so he wants to sell some of his cameras on the site.

Picture 1: Personas

More information:

- Please check out our survey
- Please see the survey findings
- Please see the survey insights summary
- Please view the user stories

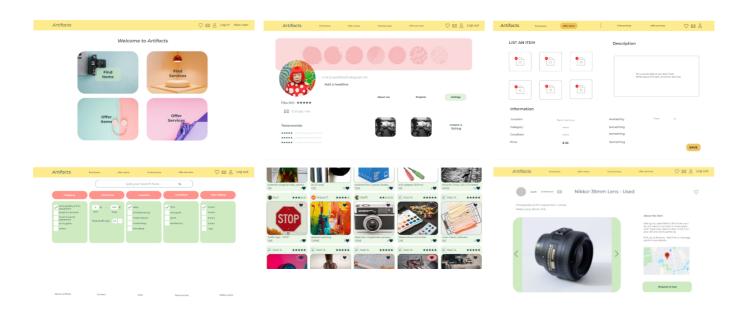
Design Process - We started to sketch our prototype with the above personas in mind. We came up with sketches on the Invision app, and then moved on to design our wireframes on Figma.

The general Information Architecture (IA) model that we used is the Bento-box model. We believe that we have to present on the landing page very clearly what scope of functionalities we are providing in Artifacts, since the range of services for the creative and art sector could be really wide. The user will be drawn to the four main functionalities (which are neatly fit into a 2x2 grid) once he/she visits our page, namely "find items", "offer items", "find services" and "offer services". To create a more secured experience, the user must first register with their Google accounts before they can access the functionalities.

We decided to go for a neat, simple and cheerful design, which incorporates pastel and more primary colours (yellow, red, green and blue), the Montserrat font which gives a modern and not too serious feel. We avoid sharp corners in our buttons and text boxes, which also contributes to the friendly and cheerful look and feel of the site.

More information:

- Please check out our initial drafts on the Invision page
- Here is our project on Figma
- A glimpse to our style guide
- Check out the user flows



Picture 2 (in order of their appearance): Landing page, user profile, offer item page, find items page, items grid, individual item pop-up page

To sum up, the UX team has learned a lot during the past 10 weeks from research to design. What we have not achieved is to test out our prototype among more people. However, we believe that we have successfully created a consistent, user-friendly design for our potential users.

Coding - As soon as the Project Phase began, the active work on the project for the web dev team also started. Thanks to the advice of our mentor, the Tech Stack was quickly clarified and we agreed to test our freshly acquired knowledge regarding React and SCSS directly in the project. The first hurdle we had to overcome was the issue of data storage and database. Since our web dev team consisted of three Techies who followed the front end path and we therefore had to tackle the project without a back end Techie, this was quite a challenge. Again, however, we were able to rely on the expert advice of our mentor and decided to use Google Firebase for authentication with existing Google accounts, data storage and hosting.

After the initial set up of the repo, we went straight to creating the first components and making them accessible via React Router. In parallel, enabling the authentication and CRUD functionalities in interaction with the database was a core focus of our first weeks in the project. At the beginning, we focused mainly on

the functionalities of Artifacts in order to have the core features implemented quickly and to give the UX team time to work on wireframes. Using initial sketches, we set up the landing page, the search mechanism and item cards, the header, the user profile and the form for entering new items.

As time went on, we slowly realized that we could not implement the MVP, as initially defined, in the given time without sacrificing quality in the product (and our lifes beside the project ⑤). In order to secure our goal of providing a prototype that is harmonious in itself and also works without errors in the offered functionalities, features had to be eliminated. We therefore continued to focus on Artifacts as an exchange platform for items and postponed the

- extension to services to Release 2.0, followed by
- the user rating,
- the dynamic display of fans per item,
- the messenger functionality,
- the functionality to show someones profile
- the feature to upload and store pictures (not just URL) and
- other features to make the website more dynamic.

With the provision of the wireframes by the UX team, we were able to begin with the restyling of the pages from the second half of the Project Phase on. In parallel, further functionalities, such as the popup with detailed information about the items, were implemented and major and minor errors and bugs were fixed.

Thanks to the continuous deployment of the main branch of our Github repo via Github workflows to Google Firebase, we were able to quickly add different sample items to the database in the last two weeks of the Project Phase, so that we could frequently test the behavior and the search algorithm and identify bugs. The last weeks of the Project Phase therefore mainly included bug fixes, restyling and finalizing the last functionalities.

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We are happy to bring a project of this scope to life within the 10-weeks Project Phase interdisciplinary while having fun and respect for each others needs. Thank you for having us!