map & meet
a collaborative web app for our cartographic journey.

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The Cartography M.Sc. distinguishes itself from other programs with its four different study locations. The student life is determined by moving to those different cities, exploring, and finding new places to visit and meet. For this reason, I wanted to create a web application for our carto group to gather our favorite spots during our journey. Therefore, the app offers not only information about different places, but also provides a tool that can generate suggestions for places based on the users desired activity and participating member's home location.

DATA COLLECTION

The target audience of this web map is the current 2023 cohort of the cartography program. Utilizing a collaborative approach, I have manually collected online data based on recommendations from several students of the program. Now, 30 places from 6 different categories (café, restaurant, theatre, museum, cinema, bar) form the initial dataset. However, the focus of this app is to evolve during our time in Munich.

DESIGN

The clean and intuitive user interface follows the same color scheme in alignment with the branding of the master's program. A uniquely assigned color (green, blue and orange) was given to each tab in the navigation to help with
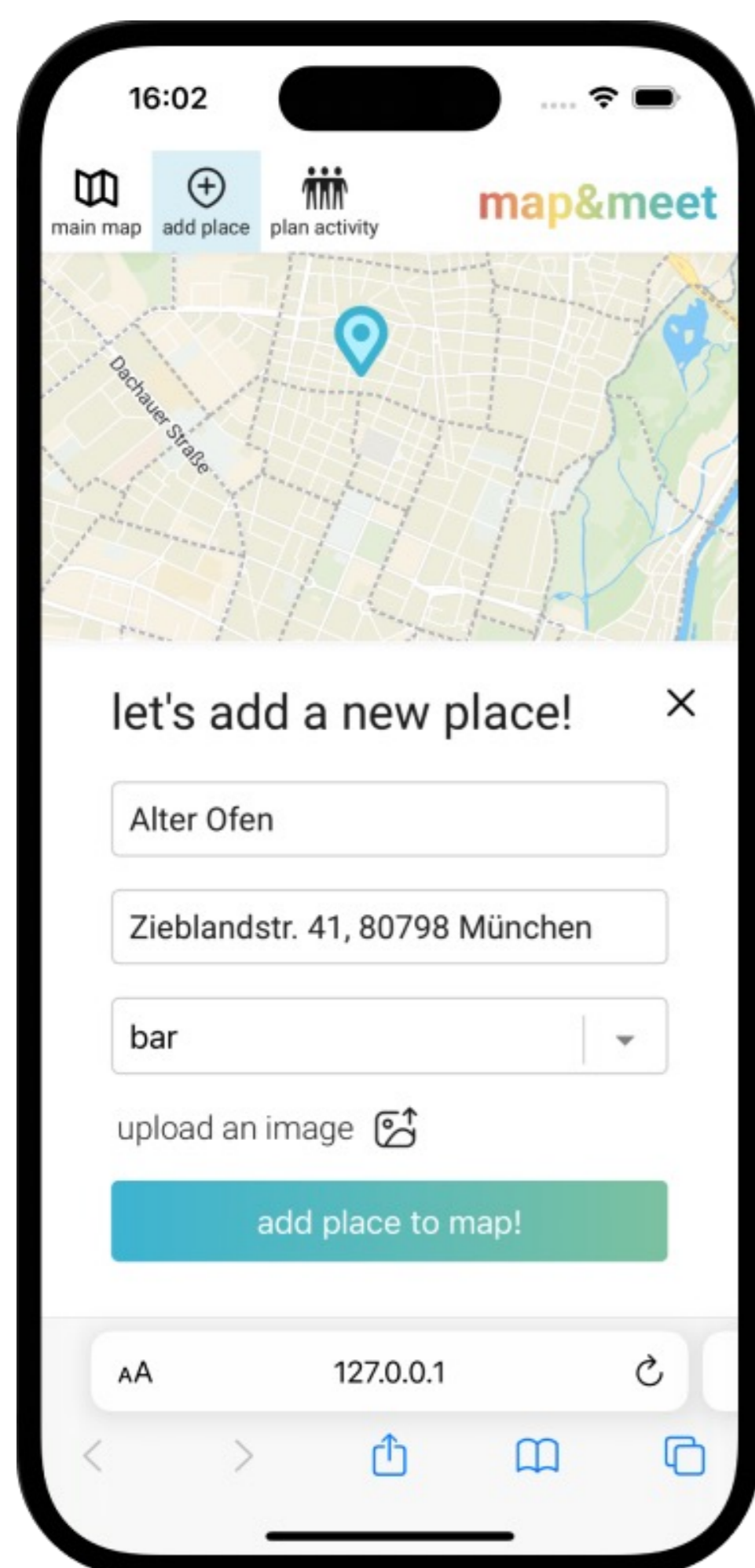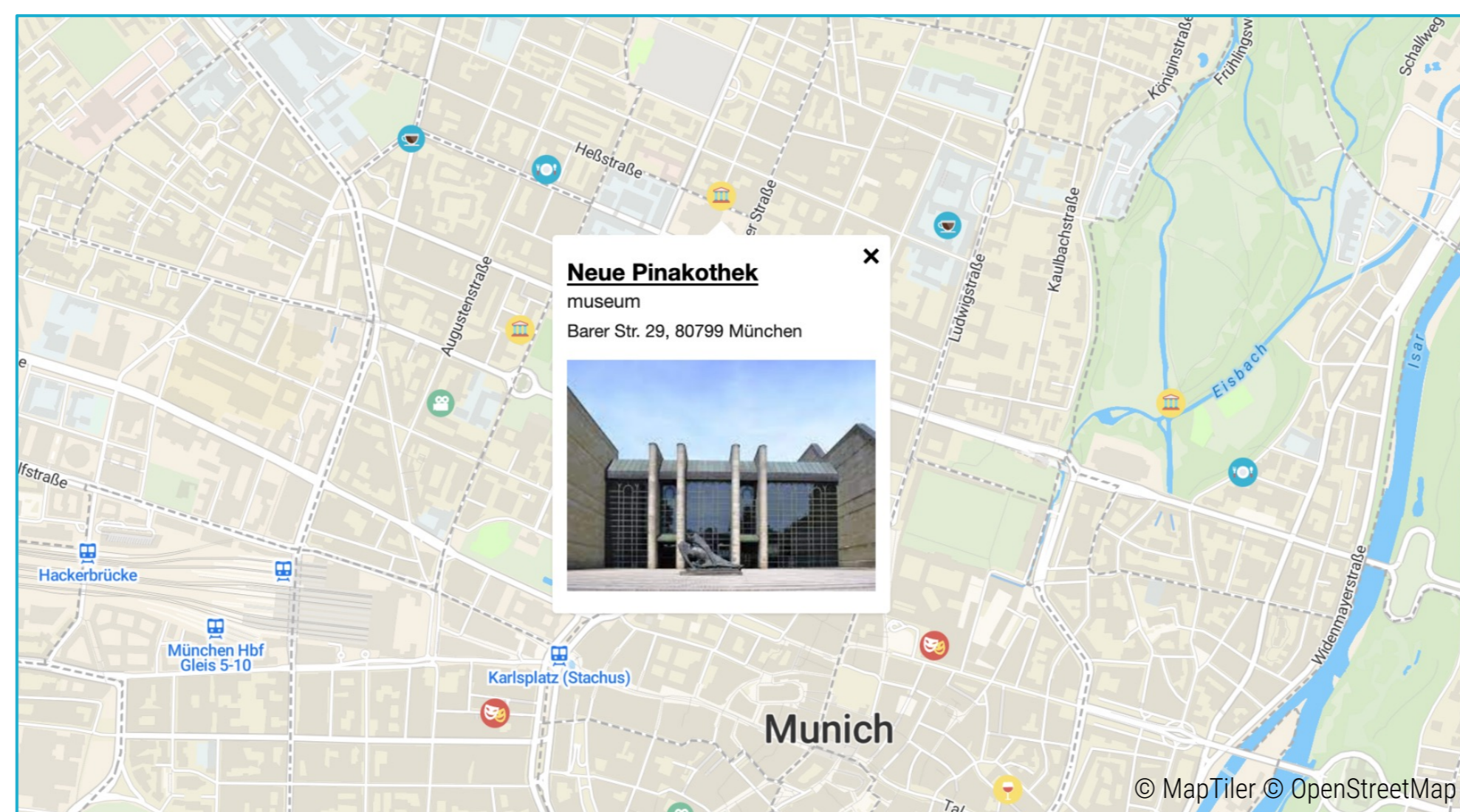

Fig. 1: Main map with popup window containing information about "Neue Pinakothek"

the reduction of cognitive load on the user. Those colors are also reflected in buttons, icons and other items on the page.

IMPLEMENTATION

The development of the web app is the focal component of the project. It was implemented using JavaScript (React), HTML and CSS. The data for the places is stored in a PostgreSQL database leading to a client-server-architecture. Even though the development of a server hosting the database is more complex compared to a simple website, it was worth the benefit as it offered a dynamic interaction between the users and the database. For the base map I chose MapTiler as it is freely available and easy to incorporate in React. [1] The step-by-step development ensured a robust procedure in creating the web app.

FUNCTIONALITY

Fig. 2: The "add place" page with filled out form

map & meet offers a fun and dynamic user experience by allowing the user to choose between three different use cases that can be reached over the menu tabs:

1. Main map with information popups
2. Add new places to the map
3. Plan an activity with other people

The interactive map is visualizing different locations that are stored in the database and provides further information on them (*Fig. 1*). Those places can be added by the users individually on the "add place" page (*Fig. 2*). Beyond mere information and visualization, the app offers a tool for activity-based suggestions on the third tab ("plan activity"). A result page contains detailed information about the suggested place and offers a share function to invite more people.

CONCLUSION

map & meet turned into a representation of the dynamic lives of the students from our cartography group. It transforms the journey of exploring a new city into a personalized and collectively create web map.

Its functionalities extend conventional mapping tools in evolving a group map, facilitating meet-ups and creating a shared space for discovery.

Every web application leaves room for improvement. In future, I would like to incorporate live-locations of users and the possibility to chose between different routing options such as biking, walking or public transport.

REFERENCES

[1] MapTiler: www.maptiler.com

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