**Generate your final report**

Your final report should:

*Describe the data you chose and identify specific exploration needs that your user has*

Our visualization uses the Pittsburgh Yelp data. This dataset has over 330 businesses in Pittsburgh that have Yelp reviews and ratings from customers. The types of businesses are food, nightlife, arts, shopping, and active. Most of the data points are food establishments, so we honed our user need to be looking specifically for places to eat in Pittsburgh. The dataset includes the location, neighborhood, star rating out of five, and food category (cuisine) for each restaurant; we used this information in our visualization. The dataset also includes an image and URL, number of reviews, and example review for each restaurant, which we did not use because the information added was not worth cluttering the visualization.

Diagram

Description automatically generatedDiagram

Description automatically generated*Provide storyboards that outline the interactions you will design for your dataset and justify why you are using those particular interactions*

The left image is a design that uses a mini map to provide context to users when they look into a specific area of businesses. The design allows users to filter by business type and neighborhood. In the case that the user doesn’t know exactly where they are by looking at a map, they can easily choose which neighborhood they are visiting to see the businesses there. The right image takes a different approach to detail by using degrees of interest to highlight the “best match” restaurant for the user. Based on rating as the a priori degree of interest and the filter categories as the user input interest, the map highlights the best match and gives a details box about this restaurant. Our final sketch below assumes that the user will be able to see the entire map context while seeing detail about restaurants, so we removed the mini map. We kept the dual selection capability of a brush and neighborhood filter, so that users can either explore a desired area size or select a known neighborhood of interest. We also included the detail box, but condensed the information into a list – users will see the restaurant name and rating of the restaurants in their area of interest. We also kept the filtering capabilities. The final map shows context and detail by presenting the entire map while using color differences, filters, and detail lists to give details about the relevant restaurants based on user criteria.

Diagram

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*Briefly describe your final interactive visualization application, including a screenshot*

*Step back and think about issues or trade-offs associated with the interactions you developed, and how you might alleviate those (or whether they are unavoidable).*

*Briefly outline the development process of your tool. Explain how your visualization/interactions changed between storyboarding and final implementation. Comment on any trade-offs or design choices you had to make while developing.*

One challenge was the technical construction of the brush, which removed mouseover capabilities. Because the brush is on a surface that overlays the map, mousing over points no longer registers.

*Identify how work was broken down in the group and explain each group member’s contributions to the project. Give a rough breakdown of how much time you spent developing and which parts of the project took the most time.*

Making map: Medha

Making brush: Hannah

Filters: Medha, Brett, Hannah

Styling: Medha, Brett

Writeup: Hannah