RoadTripAdvisor Design

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Purpose

Given a starting point (Point A) and a destination (Point B), give the user a list of attractions between the locations and calculate a route from Point A to Point B.

Walkthrough of User Experience

1. User is prompted for starting point and destination.
2. User is shown a map depicting the route from the starting point to the ending point, with a number of attractions near the route displayed.
3. User clicks on an attraction on the map, and a box with the information about that attraction is shown below the map.
4. User can click on an attraction and add it to the route, and the map will adjust to add that attraction to to the route.
5. When finished, the user can select to have the route information compiled into a link that will take them to a Google Map page listing the route and the directions.

APIs

Google Maps

RoadTripAdvisor uses the Google Maps API to:

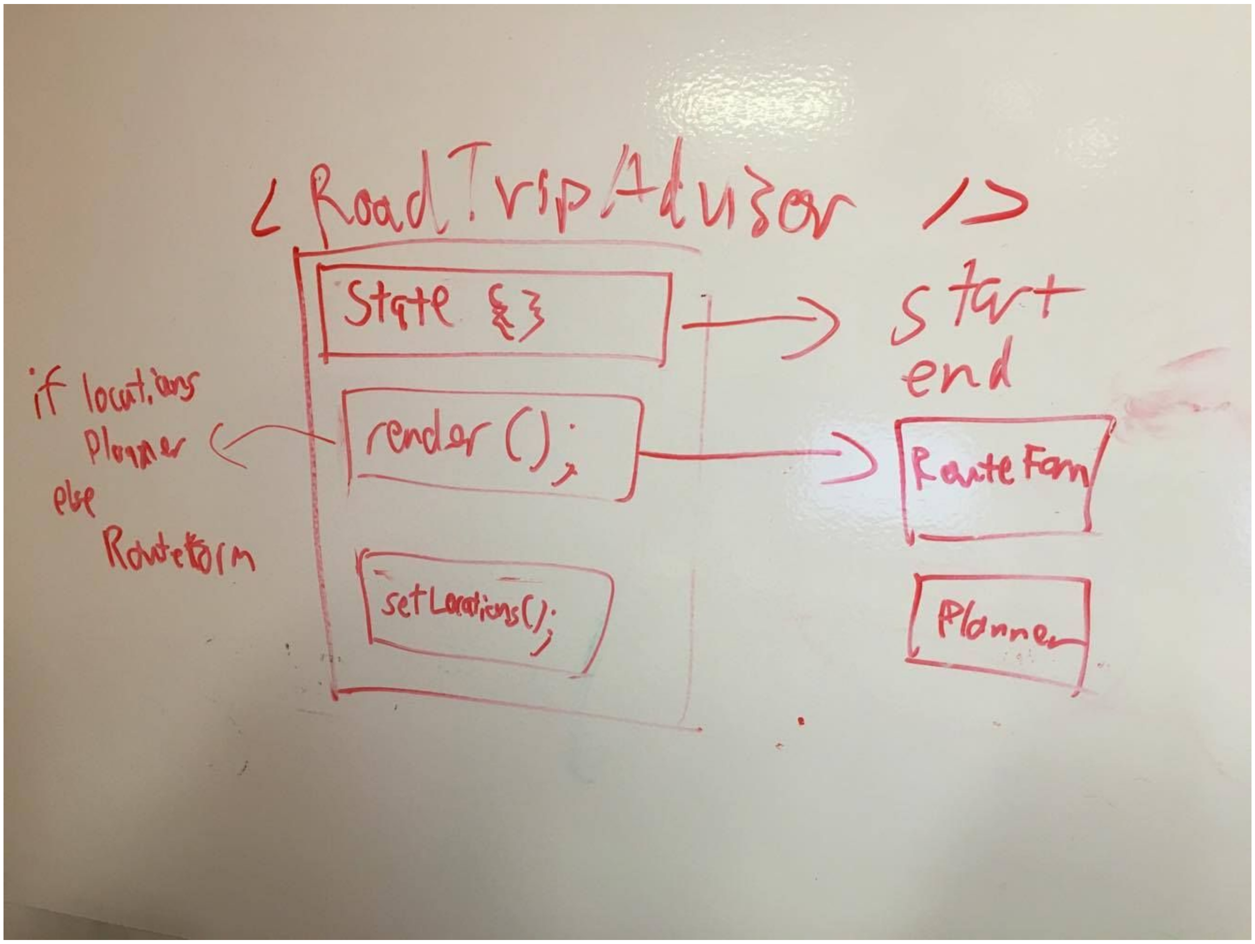
- display the route on the screen
- update the route as attractions are added
- provide a link to the final route on Google Maps

TripAdvisor

RoadTripAdvisor uses the TripAdvisor API to:

- find attractions in a certain area
- display information on attractions such as ratings, pricing, etc.

Components



Walkthrough:

- RoadTripAdvisor will be constructed, with its state initially set to an empty object.
- render() will check if the locations (start and end) have been set in the state and proceeds to RouteForm if the locations have not been set or Planner if they have been set.
- When proceeding to RouteForm, render() will pass setLocations() as a prop. RouteForm will take user input, pass it to setLocations(), which changes the state of our RoadTripAdvisor instance to contain the locations.
- Due to the state change, RoadTripAdvisor re-renders with render(), which will then proceed to Planner as the locations have been set.
- Planner will display a map with the route as well as options for displaying different categories of attractions or getting attraction information, as defined below.

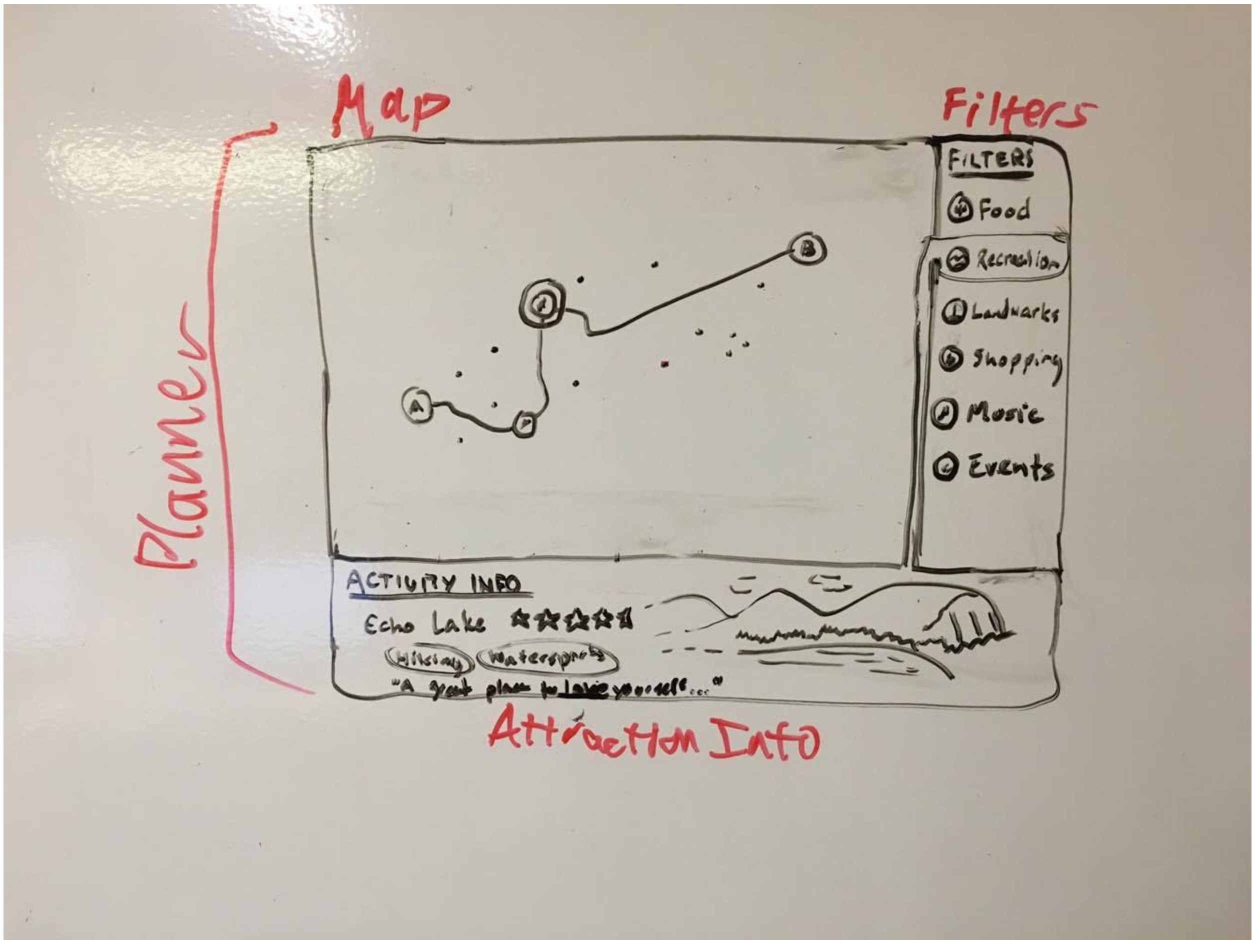
Contracts

RouteForm

Props

- onLocationsSet
    - run when the user has entered a destination and a starting point

Planner



Props

- startLocation
- endLocation

Map

Props

- startPoint
- endPoint
- detours (initially empty)

AttractionInfo

Props

- attraction
- onAttractionAdd

Filters

Props

- onFiltersChange