



ALONG THE WAY

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Description

Our road-tripping app solves the problem of having to switch between multiple platforms or apps to gather information such as weather forecasts, points of interest, and fuel costs.



Features

- Multi-Stop Routing
- Authentication
- Find hobbies along the way
- Get weather along the way
- Estimate Gas along the way



Planning - User Stories

- Users are able to log in to the site and create an account
- Users can create road trip map, select destinations, search for points of interest
- Users can track the weather conditions along the way
- Users can obtain an estimated calculation of fuel expenses



Planning - Database

- A single document for users
- Holds their cars mpg and fuel tank capacity



Technology Stack

- Google Maps API
- Open Weather API
- Angular
- Java with Spring Boot
- MongoDB
- Typescript
- Javascript
- RouteBoxer




Demo

Along The Way

localhost:4200/home

FacebookRedditGmailPhotosGoogle MapsYouTubeDriveRemoteChatGPTAmazonWeather RadarAlong The WayLC101PlexPhotosphereOther

ALONG THE WAY

HOMEABOUT US / FAQMY PROFILESIGN UP / LOG IN

DIRECTIONS

Start Location: Enter a location

End Location: Enter a location

ROUTE DATA / GAS CALCULATOR

ROUTE DATA

Total Distance: 0.00 miles

Total Drive Time: 0 hrs

GAS CALCULATOR

Average MPG: 30

Tank Capacity (Gallons): 10

Gas Price (Gallon): \$ 3.50

Total Gas Cost: \$0.00

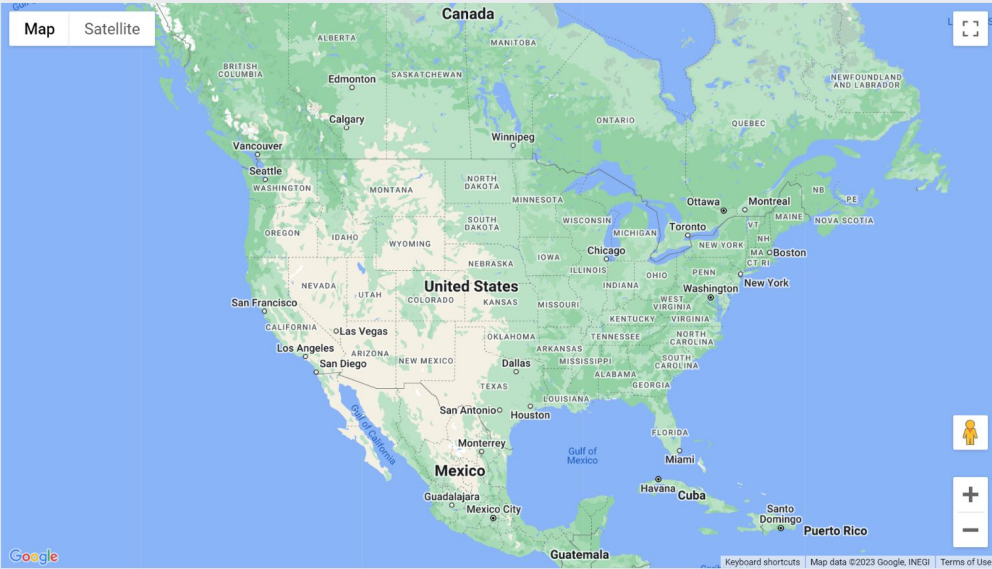
Gallons of Gas Needed: 0.0

Fill Ups Needed: 0.0

PLACES SEARCH

Place Types to Search:

MapSatellite



Google

Keyboard shortcutsMap data ©2023 Google, INEGI | Terms of Use



ALONG THE WAY

HOME ROAD TRIP IDEAS ABOUT US / FAQ SIGN UP / LOG IN

DIRECTIONS

Start Location: 58°F Breese, IL 62230, USA
Remove 52°F Chicago, IL, USA Add Stop
End Location: 56°F Terre Haute, IN, USA
Submit

ROUTE DATA / GAS CALCULATOR

ROUTE DATA

Total Distance: 468.19 miles
Total Drive Time: 7 hours 29 minutes

GAS CALCULATOR

Average MPG: 30
Tank Capacity (Gallons): 10
Gas Price (Gallon): \$ 3.50
Total Gas Cost: \$54.62
Gallons of Gas Needed: 15.6
Fill Ups Needed: 1.6

PLACES SEARCH

Place Types to Search:
Search

DEVELOPER TOOLS

Show Search Tools: Circles and RouteBoxer
Number of Circles: 11
Number of Place API Calls This Search: 0
Number of Place API Calls This Session: 0

Map Satellite

St. Louis, MO

Chicago, IL

Terre Haute, IN

Map data ©2023 Google, INEGI Terms of Use Report a map error

4:12 AM 6/12/2023

Our route searcher currently just uses circles generated along the route to make Google Places API Nearby Search calls. However, we implemented an open source library called RouteBoxer which helps generate boxes along a Google Directions request based on the distance from the route. We are hoping to soon be able to allow users to constrain their place searches to be within those bounds.





DIRECTIONS ▾

Start Location: 58°F Breese, IL 62230, USA
[Remove](#) 52°F Chicago, IL, USA [Add Stop](#)

End Location: 56°F Terre Haute, IN, USA

[Submit](#)

ROUTE DATA / GAS CALCULATOR ▾

ROUTE DATA

Total Distance: 468.19 miles
Total Drive Time: 7 hours 29 minutes

GAS CALCULATOR

Average MPG:
Tank Capacity (Gallons):
Gas Price (Gallon): \$
Total Gas Cost: \$54.62
Gallons of Gas Needed: 15.6
Fill Ups Needed: 1.6

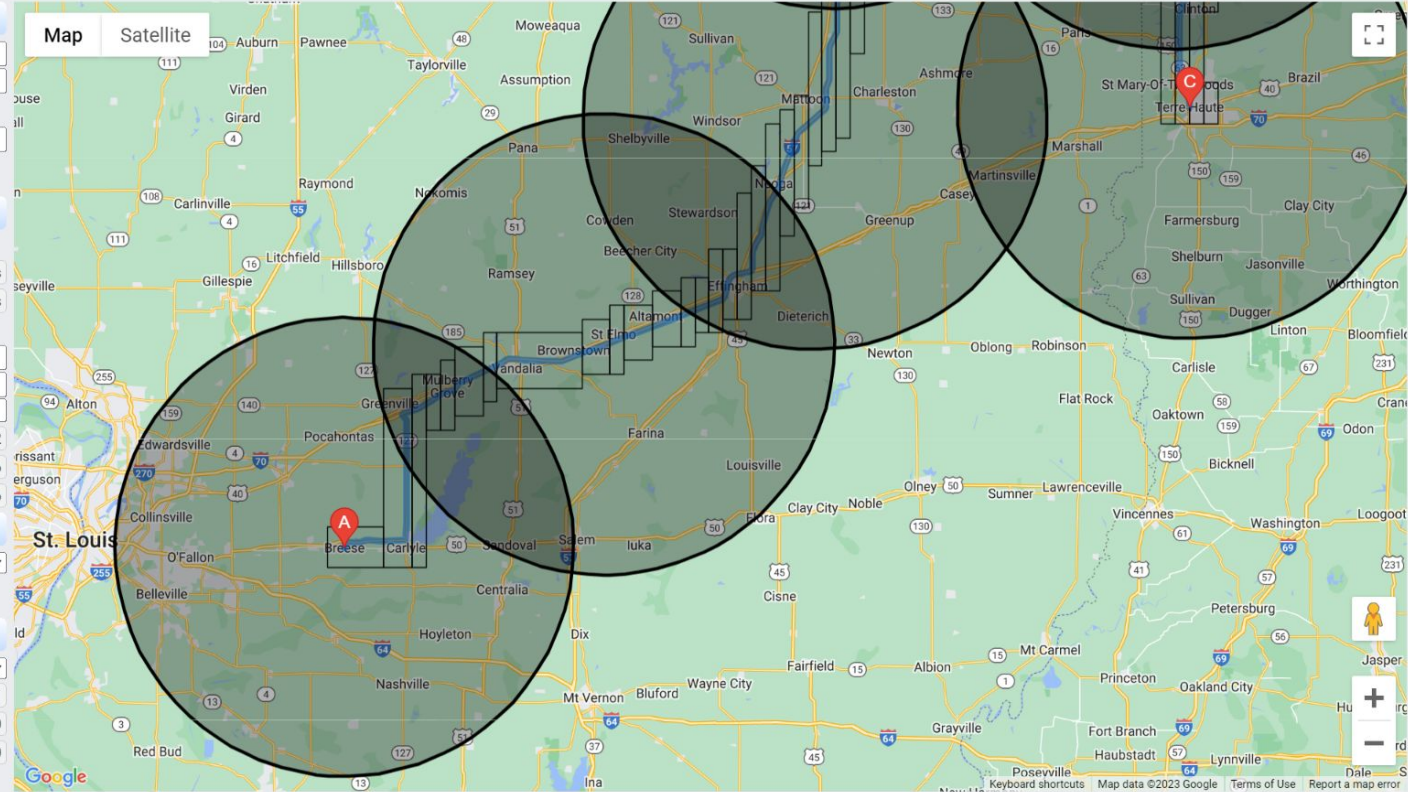
PLACES SEARCH ▾

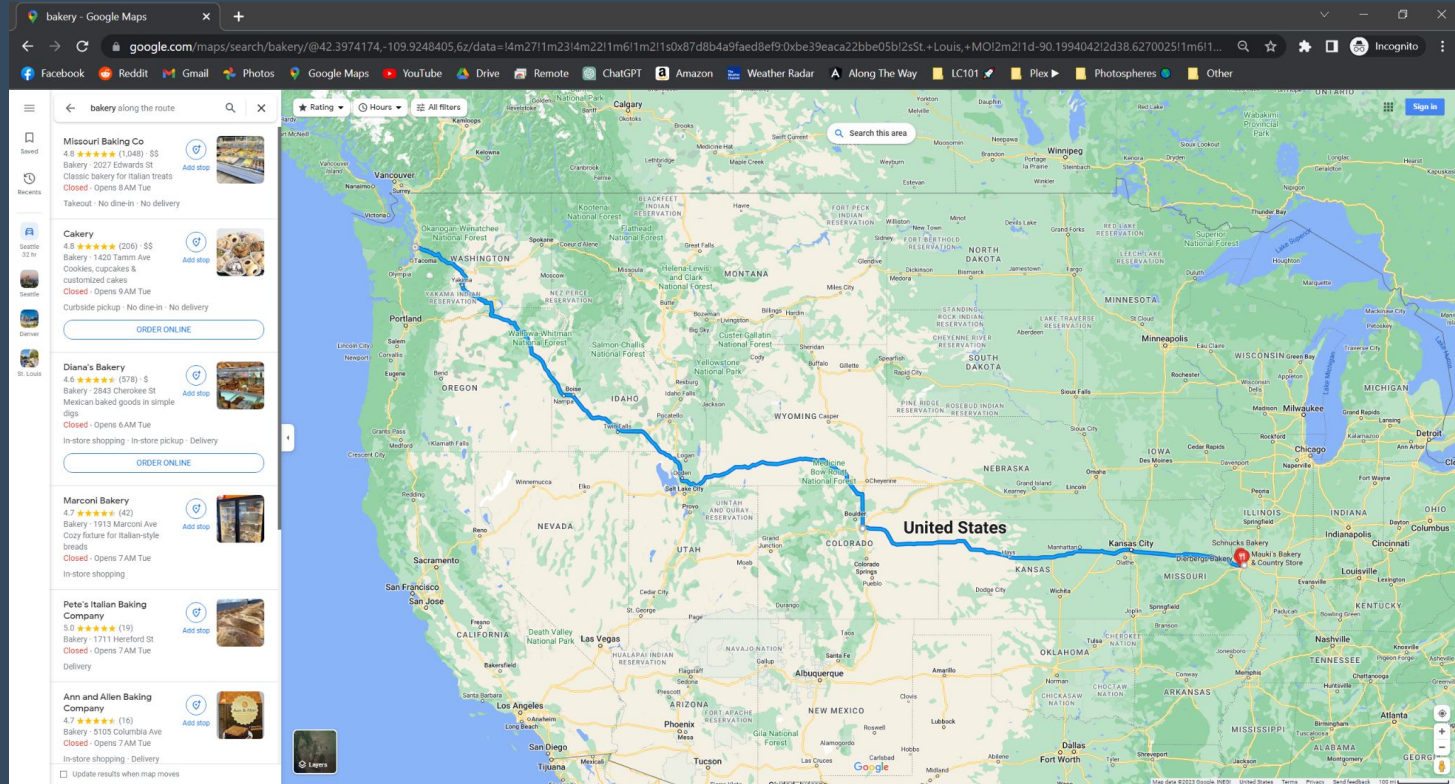
Place Types to Search:
[Search](#)

DEVELOPER TOOLS ▾

Show Search Tools:

Number of Circles: 11
Number of Place API Calls This Search: 0
Number of Place API Calls This Session: 0





Google Maps only returns a small amount of results around your origin (the red dots in St. Louis) when completing a search request along a long route. Our website searches for all the bakeries along the entire route, as shown in the next slide.





DIRECTIONS

ROUTE DATA / GAS CALCULATOR

ROUTE DATA

Total Distance: 2156.13 miles
Total Drive Time: 32 hours 0 minutes

GAS CALCULATOR

Average MPG: 30
Tank Capacity (Gallons): 11
Gas Price (Gallon): \$ 3.50
Total Gas Cost: \$251.55
Gallons of Gas Needed: 71.9
Fill Ups Needed: 6.5

PLACES SEARCH

Place Types to Search: Bakery

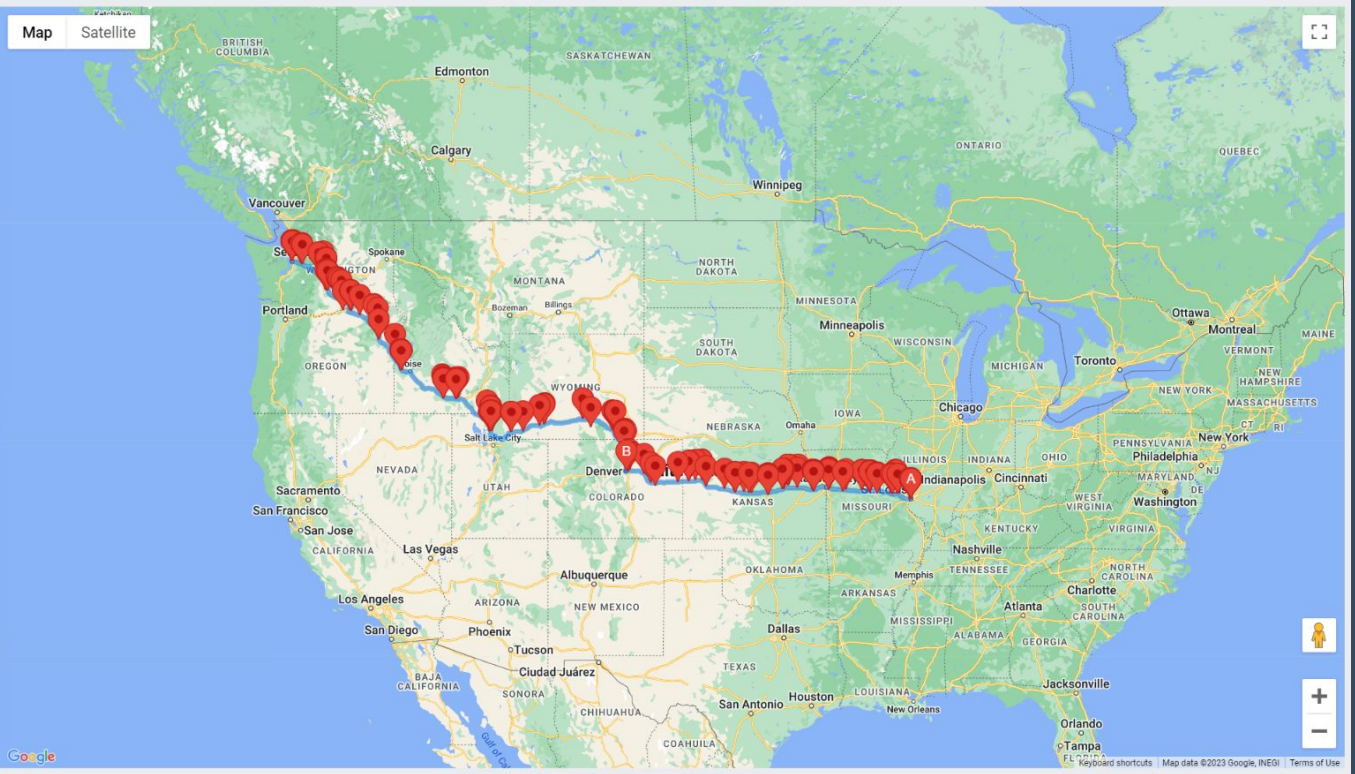
Search

Search Results

- #32 - Gus' Pretzel Shop (Rating: 4.8 - Reviews: 1940)
Address: 1820 Arsenal Street, St. Louis [Link](#)
- #33 - John's Donuts (Rating: 4.8 - Reviews: 656)
Address: 1618 South Broadway, St. Louis [Link](#)
- #34 - Mauk's Bakery & Country Store (Rating: 4.8 - Reviews: 147)
Address: 1730 South 8th Street, St. Louis [Link](#)
- #35 - Cornerstone Coffee and Confections (Rating: 4.8 - Reviews: 424)
Address: 445 East Cherry Street, Troy [Link](#)
- #36 - Sweet Bliss (Rating: 4.8 - Reviews: 33)
Address: 302 South Whitehead Street, Wentzville [Link](#)
- #37 - Plume (Rating: 4.8 - Reviews: 78)
Address: 5751 South Route K, Columbia [Link](#)
- #38 - Smallcakes (Rating: 4.8 - Reviews: 79)
Address: 2609 East Broadway # 218, Columbia [Link](#)

DEVELOPER TOOLS

Show Search Tools: None
Number of Circles: 43
Number of Place API Calls This Search: 43
Number of Place API Calls This Session: 43



What I Learned

- Frontend-Backend integration
- Google API
- MongoDB
- Authentication
- OpenWeather API
- RouteBoxer
- Git



What's Next

- Ability to save a short trip review
- My saved trip history
- Gas locator
- User Sharing
- ADA and Visual Accessibility
- Filtering Google Place results
- Filtering results based on distance from route
- Displaying full weeks weather based on departure date

