



Team Fresh Air



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Overview - Our four main areas

- Web App using Django framework
- Amazon DynamoDB for air quality sensor data
- Text/Email alert system
- Data visualization

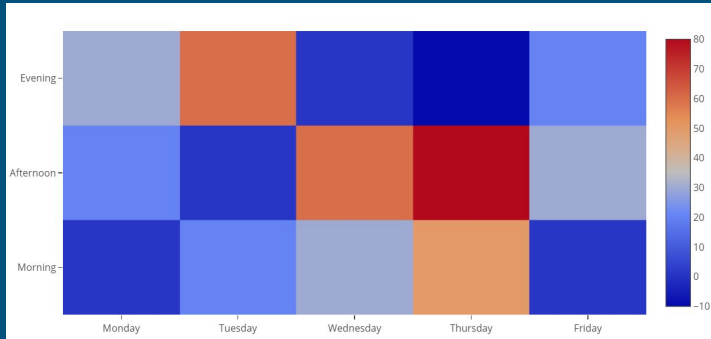
Intended Progress

- Web app
 - Web Form / Form Submission to DB
 - Build page to display maps
- Data Visualization
 - Find the best way to represent data
 - Display live maps on website with data pulled from DynamoDB
- Data Cleaning/Handling
 - Perform data reduction techniques on available sensor data
- Alert System
 - Create a table for customer info in DynamoDB and create a text alert script

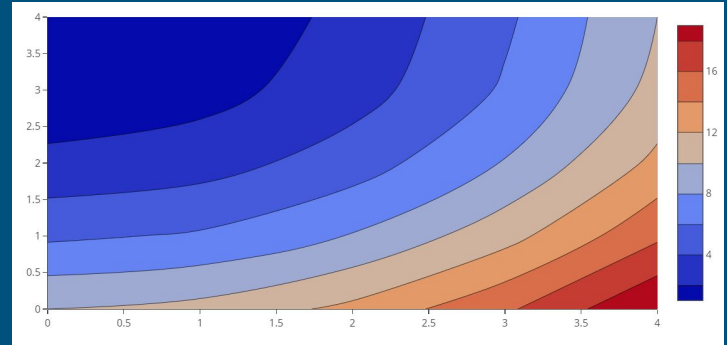
Research



Data visualization



Heat Map



Contour Map

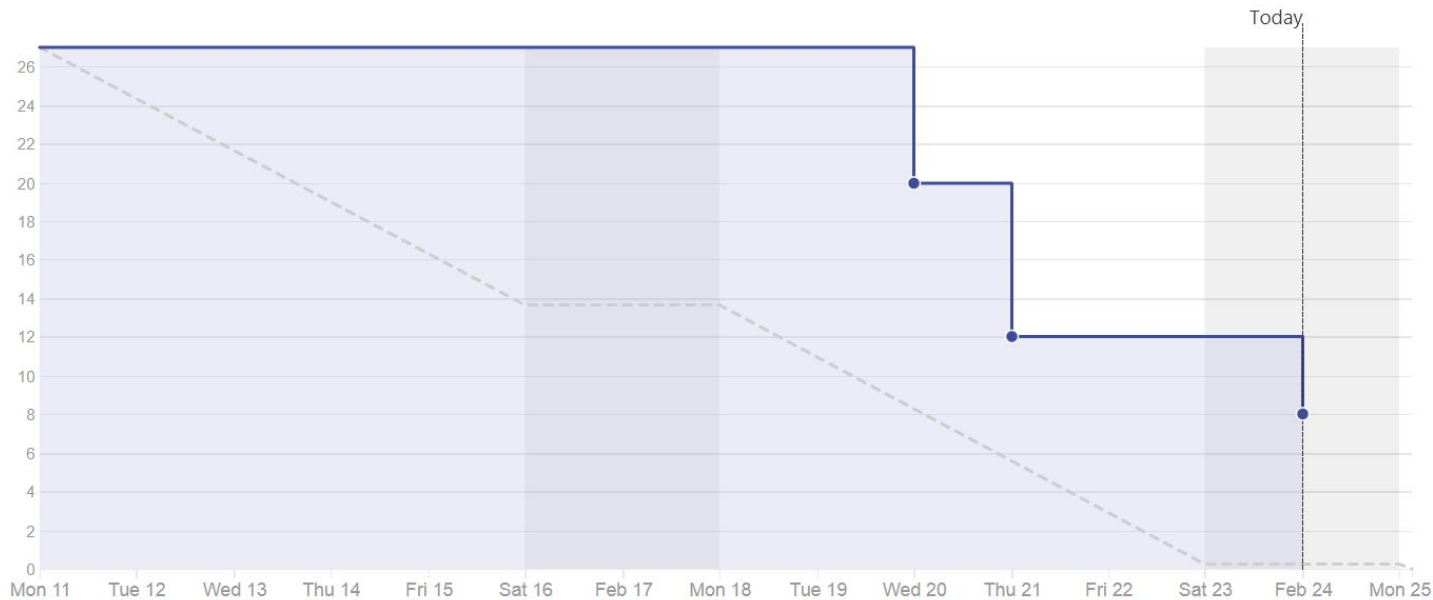
Progress Reflection

- Web app
 - Completed Web App
 - Web App DB Submission
 - Built page for maps but unable to display
- Data Visualization
 - Choropleth Map & Scatter Plot Map - Division by neighborhoods
 - Pulled data from DynamoDB
 - Displayed maps on site??
- Data Cleaning/Handling
- Alert System
 - Created the customer information table
 - created two texting script options to be asked about in sponsor meeting

Problems Encountered

- Best route for texting API for further development
- Finding best way to present data
 - Accurate representation
 - Understandable & user-friendly
 - Will display nicely on site
- Difficult to integrate maps into Django views/templates

Bu



27 Total Story Points

19 Completed / 8 Remaining

8 Total Issues and Pull Requests

7 Completed / 1 Remaining

Demo Web App



Project Fresh Air Grand Rapids

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Take Control of Your Health

Sign up for air quality alerts today

Chris 

I want to receive air quality alerts via:

☒ Email

☒ Text

schertec@mail.gvsu.edu

6167956932

*Standard text messaging rates may apply

☒ I or a family member are sensitive to poor air quality, and I would like to receive additional air quality information.

Not sure if this is you? [See here for more details.](#)

SIGN UP



Project Fresh Air Grand Rapids

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Thank you for helping us create a healthier Grand Rapids

Your first Air Quality update should arrive within 48 hours
Please direct any support concerns to support@freshairgr.com

email_list [Close](#)



- Overview
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- Metrics
- Alarms
- Capacity
- Indexes
- Global Tables
- Backups
- Triggers
- Access control
- Tags

Create item

Actions ▾



Scan: [Table] email_list: id ^

Viewing 1 to 2 items

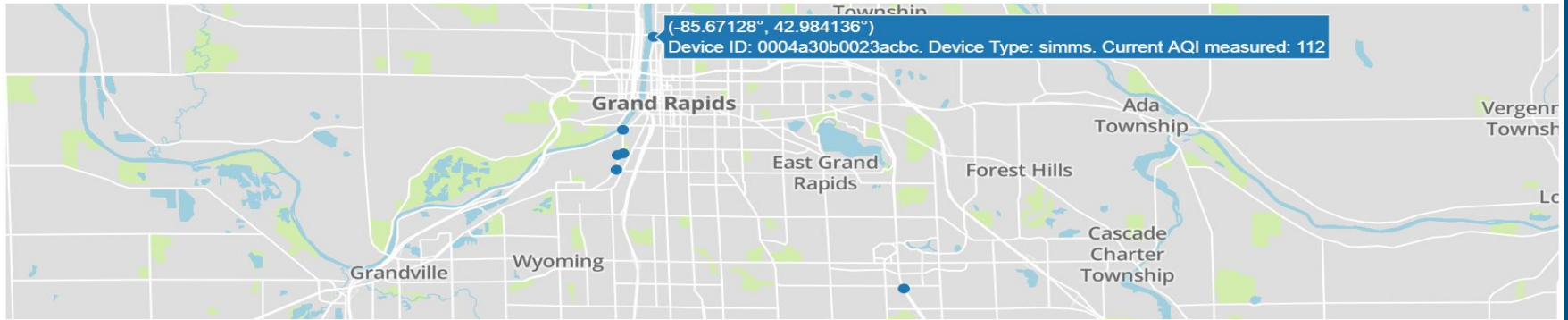
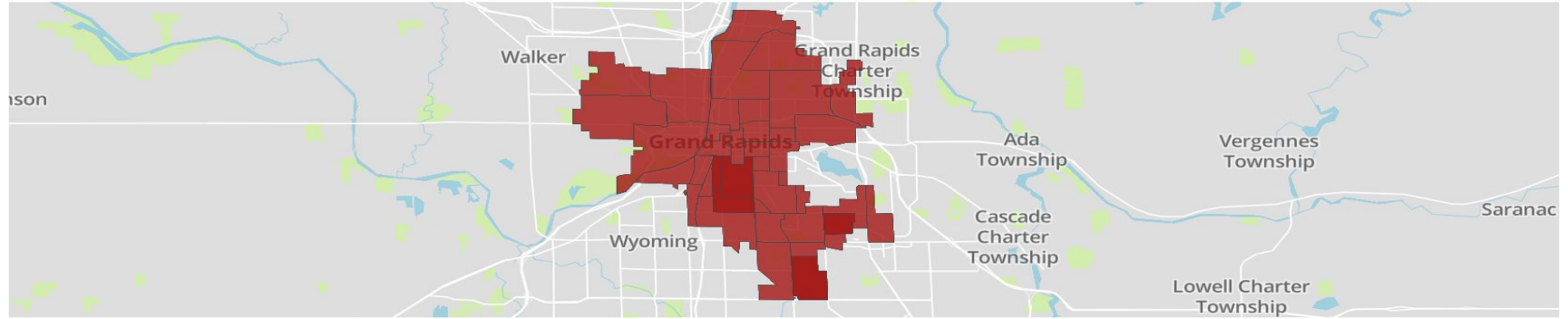
Scan ▾

[Table] email_list: id ▾ ^

+ Add filter

Start search

<input type="checkbox"/>	email ▾	name ▾	phone ▾	tier ▾
<input type="checkbox"/>	schertec@mail.gvsu.edu	test	6167956932	1
<input type="checkbox"/>	schertec@mail.gvsu.edu	Chris	6167956932	2



Projected Progress for Sprint 3

- Get live data analyzed and ready to put on the website
- Add a credentials file
- Push notifications
- Show live data on AQI map and create legend
- Other minor site pages/designs
 - Air Quality Information Guide
 - About Page
 - CSV download page
 - Contact Us page

Conclusion
