



Austin Aware

## Project Presentation:

Or, How We Went from Inspiration to Execution



1. Demo
2. Calendar Timeline
3. Design
4. Rogues Gallery of Bugs
5. Lessons Learned & Next Steps
6. Q&A



Austin Aware

Demo Time



# Calendar Timeline



# Austin Aware

November 2016

< Today >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	Nov 1	2	3	4	5
6	7	8	9	10	11	12
				<ul style="list-style-type: none"><li>[Project Assigned]</li><li>make slack channel</li><li>postman</li><li>put reqs in github</li><li>start brainstorming!</li><li>map/proximity app?</li><li>getting api keys</li></ul>	<ul style="list-style-type: none"><li>hiking/weather app?</li><li>city service rqst app?</li><li>add trello board</li><li>introduce agile</li></ul>	<ul style="list-style-type: none"><li>9 AM</li><li>3 PM</li><li>6 PM</li><li>6:30 PM</li></ul>
13	14	15	16	17	18	19
very quiet	<ul style="list-style-type: none"><li>nyt search warm-up activ.</li><li>github: big docs bloat repo</li><li>github: clone too slow</li><li>github: docs to own repo</li></ul>	<ul style="list-style-type: none"><li>day off!</li><li>team rapport / chat</li><li>discuss collab tools</li><li>due data? not sure</li><li>map/crime app?</li><li>safe-drive app?</li><li>get api keys!</li></ul>	<ul style="list-style-type: none"><li>suggest proj hw</li><li>ajax data grab</li><li>found apd incident endp</li><li>J finds nice map ex.</li><li>play w/ example</li><li>apd api needs geocode</li><li>play w/ geocode api</li></ul>	<ul style="list-style-type: none"><li>gh skeleton mvc app</li><li>riff on ex/heroku depl</li><li>First DEMO!</li><li>First DEMO FAIL!</li><li>race cond w/ async</li><li>UI mockup done</li><li>model: place/dataSrc</li></ul>	<ul style="list-style-type: none"><li>UI mockup in github</li><li>model: +city/st 4 geocd</li><li>first merged PR!</li><li>UI integrated in github</li><li>model: unit tests pass</li><li>model: geocode url</li></ul>	<ul style="list-style-type: none"><li>crocpot recipes</li><li>workflow angst</li><li>merge conflicts :-/</li><li>UI: debugger fun</li><li>fix 0-ht map div</li><li>map of Austin :-)</li><li>working well as team?</li></ul>
20	21	22	23	24	25	26
<ul style="list-style-type: none"><li>G&amp;Z ajax/geocode riff'n</li><li>UI: mobile-ish</li><li>UI: medqry in github</li><li>lat/ing from Austin endp</li><li>mode: +3 dataSources</li><li>fatal traff '15/16 + flash</li></ul>	<ul style="list-style-type: none"><li>UI: landscape mediaqry</li><li>wow, 2016 traff endp moved!</li><li>UI: 1st austin pin markers :)</li><li>json edgecase filter!</li><li>geocd api :- ( NB/SB/EB</li><li>oh no! geocd throttling</li></ul>	<ul style="list-style-type: none"><li>pivot to non-geocd data</li><li>add zoom reset btn</li><li>try bs-select drpdn btn</li><li>UI: map caption merged</li><li>trello for bkglog</li><li>2015 traffic endp bug killed</li></ul>	<ul style="list-style-type: none"><li>'15 varying json schema :(</li><li>model: lat/ing api</li><li>UI: color-coded markers</li><li>UI: wire up traffic btn's</li><li>[demo code complete]</li><li>'hover' marker text</li></ul>	<ul style="list-style-type: none"><li>add Lights-on-Flash data</li><li>THANKSGIVING</li></ul>	<ul style="list-style-type: none"><li>brown (D) pin marker</li><li>use github issue for bugs</li><li>add Dangerous Dogs</li><li>clickable pin markers</li><li>model: reset zoom</li><li>UI: media tweaks</li><li>fix multishiftie's feedbk</li></ul>	<ul style="list-style-type: none"><li>[MVP Demo Ready]</li><li>UI: reset should recenter too</li><li>UI: pimp text bkground</li><li>add Found Pets</li><li>UI: tweak btn alignment</li><li>fix banner img throttle</li><li>dropdn btn prereqs</li></ul>
27	28	29	30	Dec 1	2	3
presentation prep	DEMO DAY					

A photograph of the Austin skyline at night, featuring several illuminated skyscrapers against a dark, cloudy sky. The text 'Austin Aware' is overlaid in white.

# Austin Aware

11

- |                        |         |
|------------------------|---------|
| • [Project Assigned]   | 1:30 PM |
| • make slack channel   | 1:50 PM |
| • postman              | 2 PM    |
| • put reqs in github   | 2:50 PM |
| • start brainstorming! | 6 PM    |
| • map/proximity app?   | 6 PM    |
| • getting api keys     | 7 PM    |



12

- hiking/weather app? 9 AM
- city service rqst app? 3 PM
- add trello board 6 PM
- introduce agile 6:30 PM





13

very quiet





14

nyt search warm-up activ.

- github: big docs bloat repo 9 AM
- github: clone too slow 9 AM
- github: docs to own repo 10 AM



# Austin Aware

15

day off!

- team rapport / chat 11 AM
- discuss collab tools 11 AM
- due data? not sure 11:55 AM
- map/crime app? 12 PM
- safe-drive app? 12:10 PM
- get api keys! 2 PM



# Austin Aware

16

- suggest proj hw 2:50 PM
- ajax data grab 2:50 PM
- found apd incident endp 6 PM
- J finds nice map ex. 6:30 PM
- play w/ example 6:31 PM
- apd api needs geocode 7 PM
- play w/ geocode api 7 PM

## Hello, Austin.



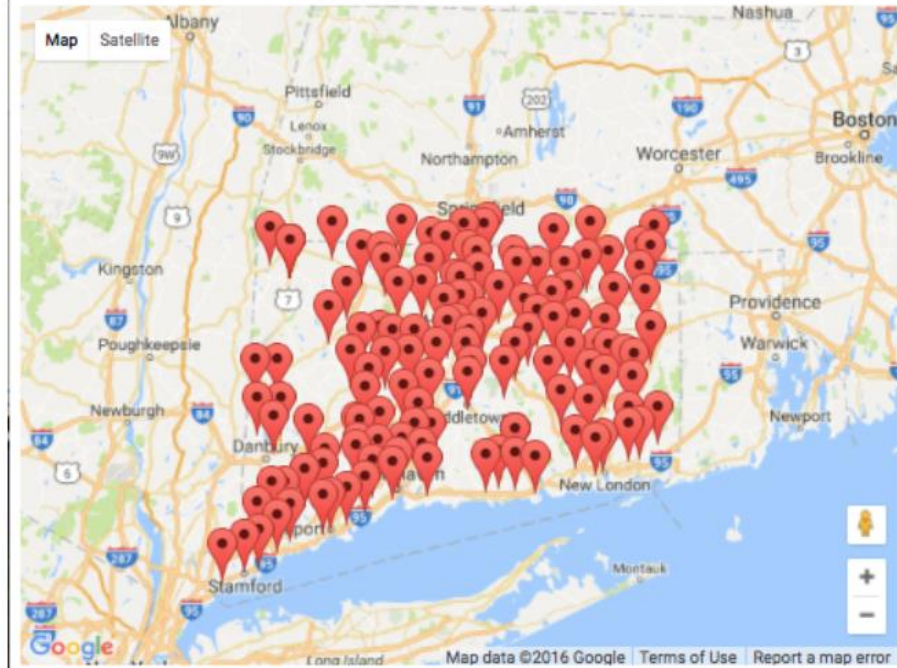


# Austin Aware

17

- gh skeleton mvc app 8 AM
- riff on ex/heroku depl 9 AM
- First DEMO! 9:30 AM
- First DEMO FAIL! 9:30 AM
- race cond w/ async 9:30 AM
- UI mockup done 11 PM
- model: place/dataSrc 11 PM

## Hello, Connecticut?!







18

- UI mockup in github 10:40 AM
- model:+city/st 4 geocd 8 AM
- first merged PR! 12:30 PM
- UI integrated in githb 3:30 PM
- model: unit tests pass 5 PM
- model: geocode url 9:45 PM

A photograph of the Austin skyline at night, featuring several illuminated skyscrapers against a dark sky. The text "Austin Aware" is overlaid in a large, white, sans-serif font in the center of the image.

Austin Aware

640×480

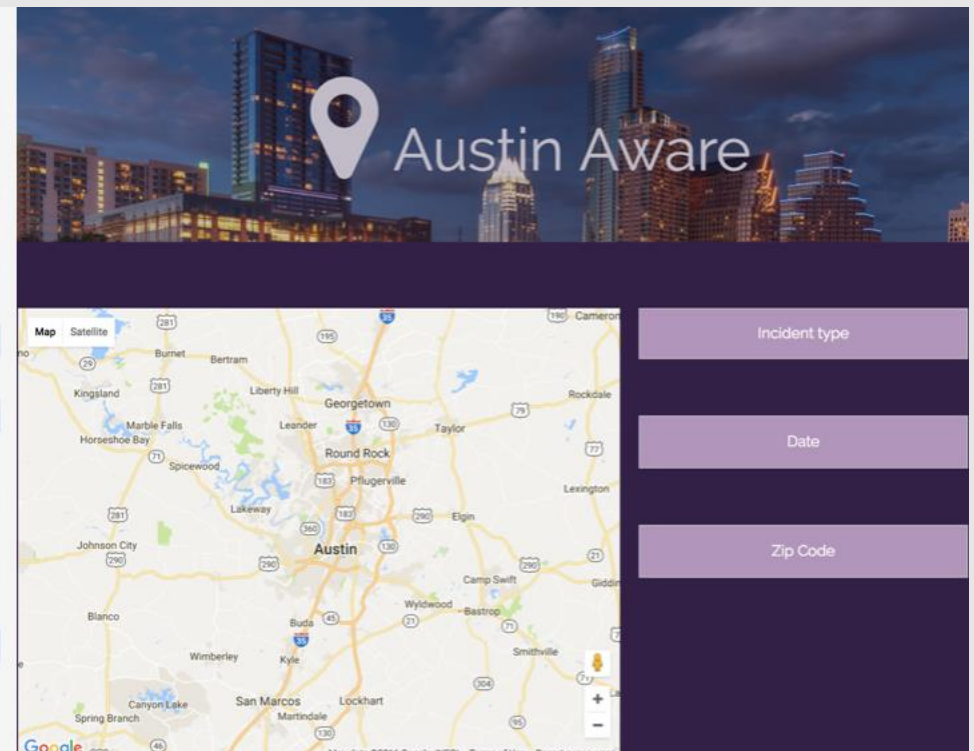
Incident type

Date

Zip Code




	19
● crockpot recipes	11:30 AM
● workflow angst	1:45 PM
● merge conflicts :-/	4 PM
● UI:debugger fun	4 PM
● fix 0-ht map div	4:55 PM
● map of Austin :-)	4:55 PM
● working well as team?	5 PM









	20
● G&Z ajax/geocode riff'n	3:30 PM
● UI: mobile-ish	5:45 PM
● UI: medqry in github	6 PM
● lat/lng from Austin endp	6:55 PM
● mode: +3 dataSources	11 PM
● fatal traff '15/16 + flash	11 PM



Austin Aware

Map



Incident type

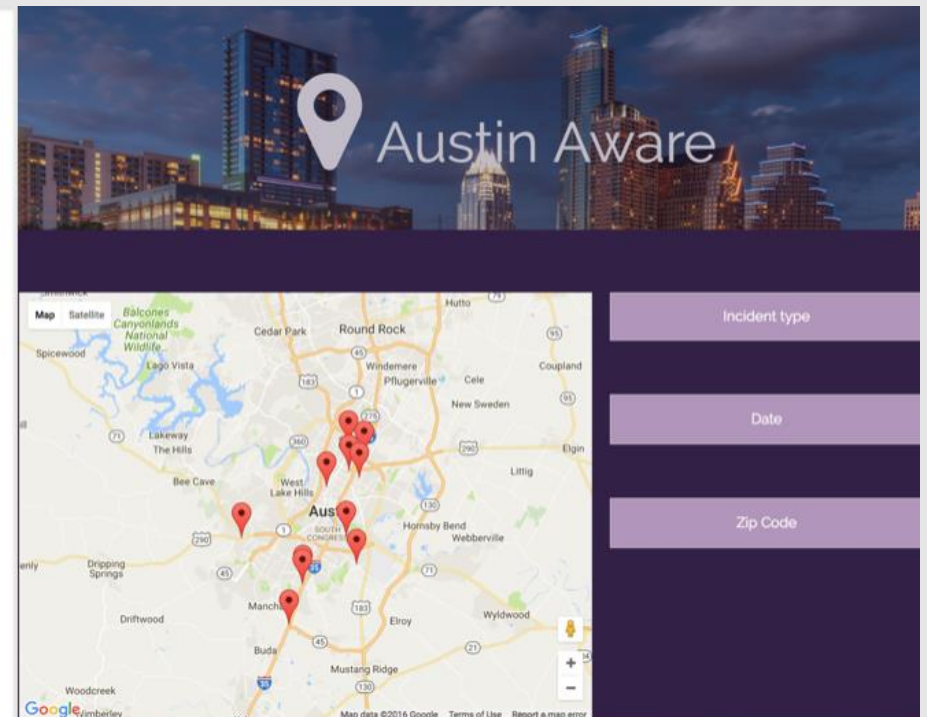
Date

Zip Code

```
if("case_number":"15-0061199","case_status":"Closed","charge":"N/A","date":"2015-01-06T00:00:00.000","day":"Tues","dl_status_incident":"okay","fatal_crash":"1","hour":"17","impaired_type":"DRIVER","killed_driver_pass":"driver","location":"600 Blk E Koenig Lane","location_1":{"type":"Point","coordinates":[30.32067,-97.75944]},"month":"Jan","of_fatalities":"1","ran_red_light":"N","related":"MV/MV","restraint_helmet":"no seatbelt","sector":"ID","speeding":"Y","time":"17:15","type":"M..."
```



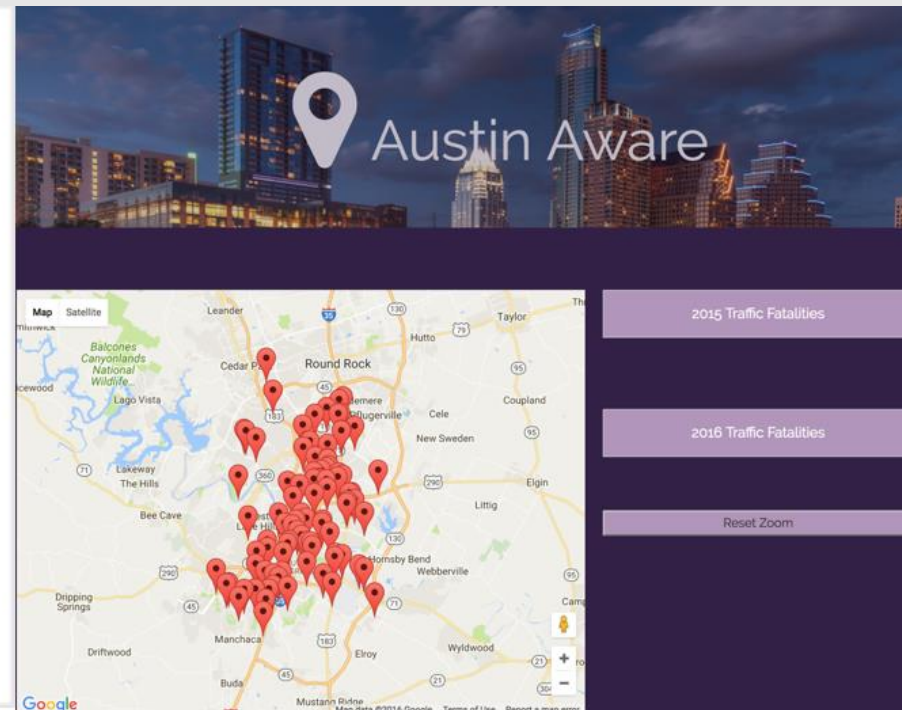
	21
● UI: landscape mediaqry	1 AM
● wow, 2016 traff endp moved!	7 PM
● UI: 1st austin pin markers :)	11 PM
● json edgecase filter!!	11 PM
● geocd api :-( NB/SB/EB	11 PM
● oh no! geocd throttling	11 PM





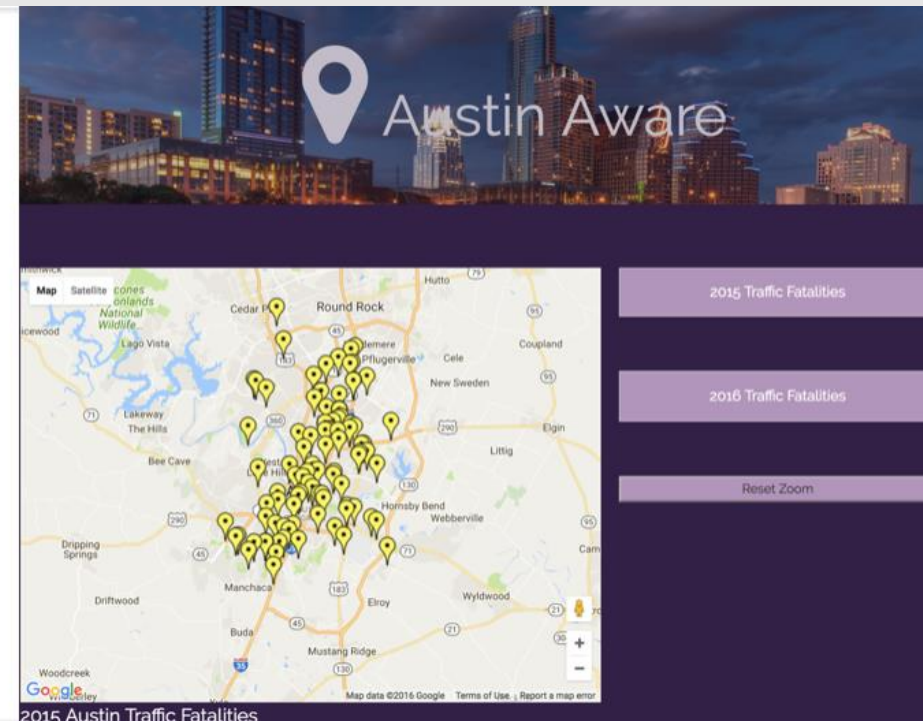
# Austin Aware

- pivot to non-geocd data 7:45 AM
- add zoom reset btn 3:45 PM
- try bs-select drpdn btn 4 PM
- UI: map caption merged 5:30 PM
- trello for bklog 5:30 PM
- 2015 traffic endp bug killed 11 PM





	23
• '15 varying json schema :(	9 AM
• model: lat/lng api	10 AM
• UI: color-coded markers	1 PM
• UI: wire up traffic btn's	3 PM
• [demo code complete]	3 PM
• 'hover' marker text	5 PM



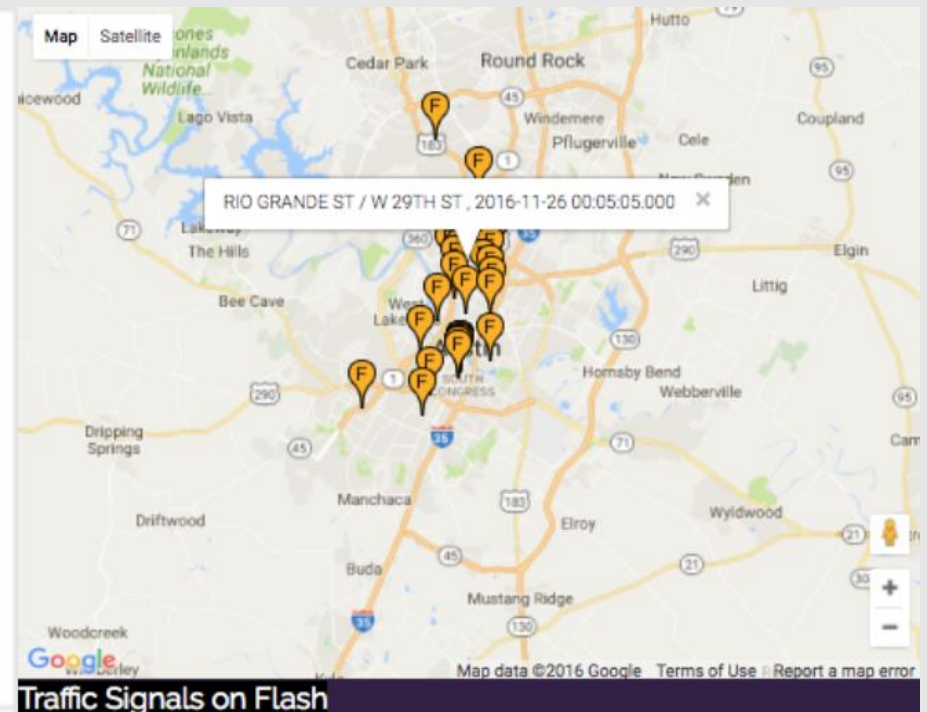




# Austin Aware

24

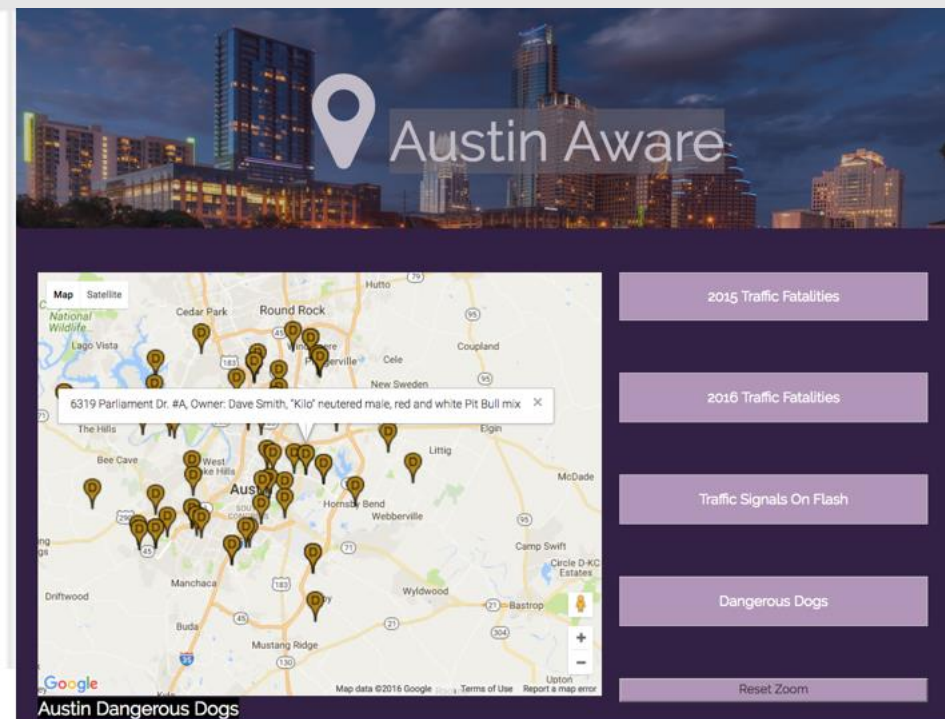
add Lights-on-Flash data  
THANKSGIVING





- brown (D) pin marker
- use githb issue for bugs
- add Dangerous Dogs
- clickable pin markers
- model: reset zoom
- UI: media tweaks
- fix multishiftie's feedbk

25  
4:50 AM  
9 AM  
3 PM  
5 PM  
6 PM  
7 PM  
11:30 PM





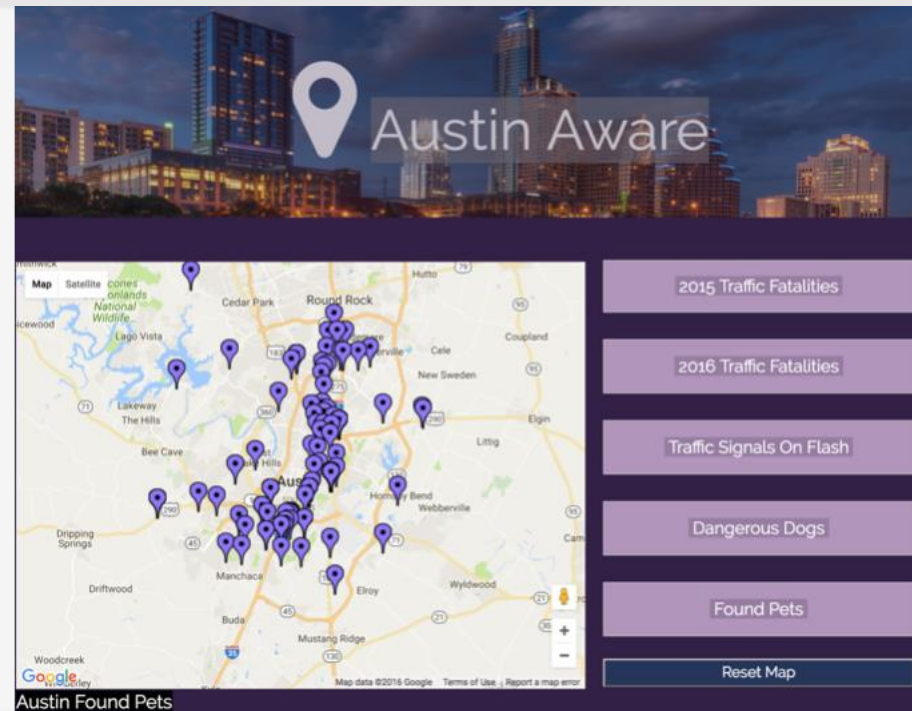


# Austin Aware

26

[MVP Demo Ready]

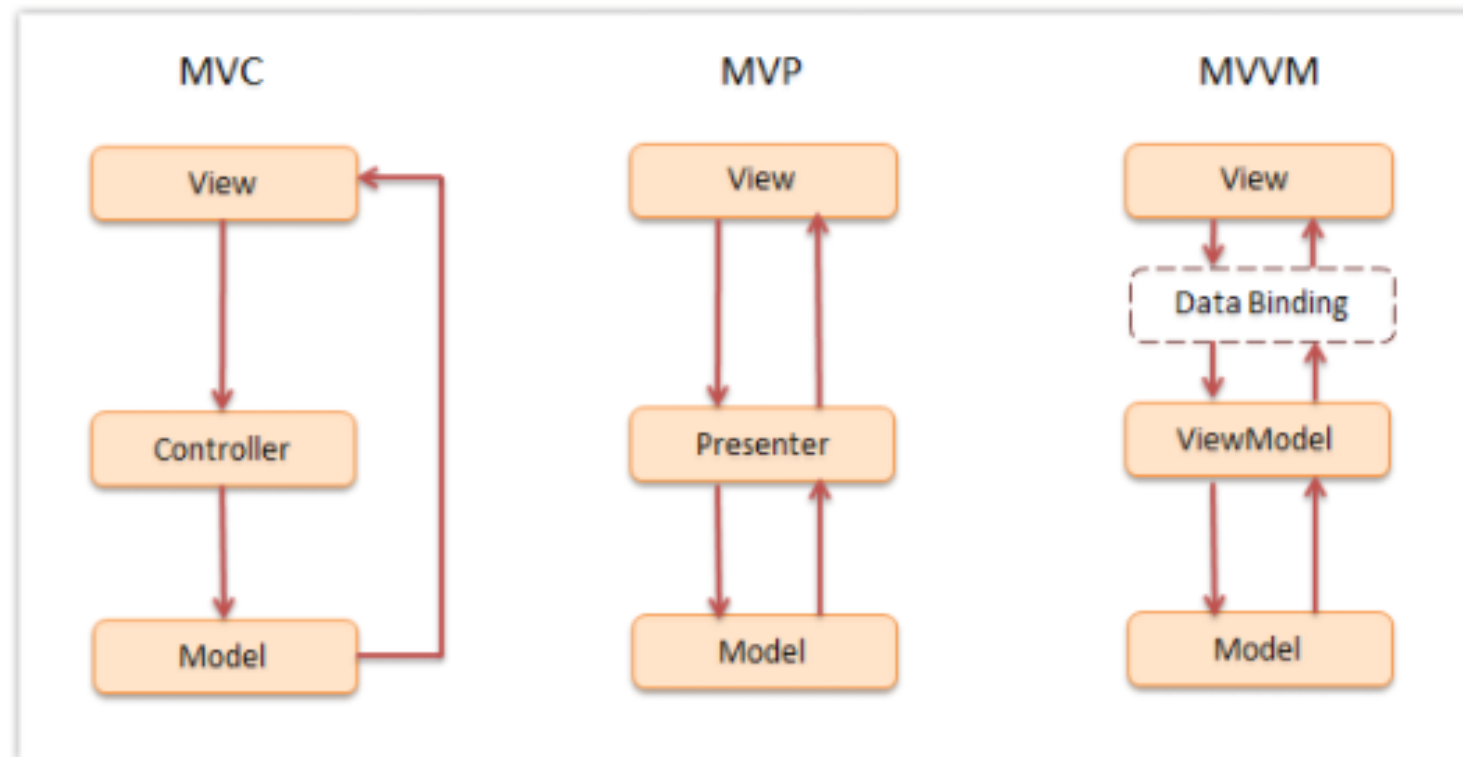
- UI: reset should recenter too
- UI: pimp text bkground 12:50 AM
- add Found Pets 2:30 AM
- UI: tweak btn alignment 2:30 AM
- fix banner img throttle 3:20 AM
- dropdn btn prereqs 9 AM





# The Grand Design

# Austin Aware





# Austin Aware

proj-1/model.js at 6dc90a74b · x

JavaScript + jQuery Design Pa · x

www.dofactory.com/products/javascript-jquery-design-pattern-framework

Apps utboot mkp26 cool rpg keys collab gaj mem bugs

MVC

MVP

MVVM

proj-1/model.js at 6dc90a74b · x

GitHub, Inc. [US] https://github.com/zenglenn42/proj-1/blob/6dc90a74...

9 var model = {  
10 // model attributes  
11 appName: "Austin Aware",  
12  
13 // model methods  
14 init: init,  
15 unitTests: unitTests  
16 };  
17  
18 // Function init  
19 // Usage: model.init();  
20 //  
21 // Initializes the model to a known state.  
22  
23 function init() {  
24 console.log("model.init");  
25 }  
26  
27 // Function unitTests  
28 // Usage: if (model.unitTests()) console.log("model unit tests passed");  
29 //  
30 // Run unit tests for model methods.  
31  
32 function unitTests() {  
33 console.log("model.unitTests");  
34 result = true;  
35  
36 // put non-trivial unit tests here.  
37  
38 return result;  
39 }

proj-1/controller.js at 6dc90a74b · x

GitHub, Inc. [US] https://github.com/zenglenn42/p...

18 \$(document).ready(initMVC);  
19  
20 // Function: initMVC  
21 // Usage: \$(document).ready(initMVC);  
22 //  
23 // Initializes the model, view and controller. Most of the  
24 // initial data comes from the model itself.  
25  
26 function initMVC() {  
27 console.log("initMVC");  
28  
29 // Initialize the model, view, and controller.  
30  
31 model.init();  
32 vinit(model);  
33 cinit();  
34 }  
35  
36 // Controller Functions  
37  
38 // Function: cinit  
39 // Usage: cinit();  
40 //  
41 // Initializes the controller by registering various callback functions  
42 // that come to life in response to user input of some kind.  
43  
44 function cinit() {  
45 console.log("cinit");  
46 }  
47  
48 // View Functions  
49  
50 // Function: vinit  
51 // Usage: vinit(model);  
52 //  
53 // Initializes the view / presentation layer with data from the model.  
54 // Model data may include default settings in model.js as well as  
55 // data from persistent storage.  
56  
57 function vinit(model) {  
58 console.log("vinit");  
59 vupdateTitle(model.appName);  
60 }  
61  
62 // Function: vupdateTitle  
63 // Usage: vupdateTitle(model.appName);  
64 //  
65 // Updates the view title from the model.  
66  
67 function vupdateTitle(nameStr) {  
68 \$("title").html(nameStr);  
69 }

Austin Aware

www.PetHarbor.com pet/...

https://glacial-plains-14707.herokuapp.com/...

Apps utboot mkp26 cool rpg keys collab gaj

Austin Aware

Map Satellite

Austin, TX

Image

Map data ©2016 Google Terms of Use Report a map error

www.PetHarbor.com pet:ASTN...

petharbor.com/pet.asp?uaid=ASTN.A7387...

+ Share

This DOG - ID#A7387

I am a yellow, unaltered male, who looks like a Labrador Retriever mix.

The finder thinks I am 1 year old.

I am not at the Austin Animal Center, but I am currently with the person who found me. Contact customer service in order to get more information.



# Austin Aware

The screenshot displays a web browser window showing the Austin Aware project on GitHub. The browser has three tabs open: 'proj-1/model.js at 6dc90a74b...', 'proj-1/index.html at 6dc90a74b...', and 'proj-1/controller.js at 6dc90a74b...'. The main content area shows the GitHub repository page for 'zenglenn42 / proj-1'. The repository description is 'demo how model data drives the view through the controller'. The file tree shows 'proj-1 / index.html' selected. The code editor displays the HTML file, which includes a meta charset, a title, and links to jQuery, a font, and a CSS file. The body contains a container with a heading and a section for the view. The footer includes a copyright notice for 2016 GitHub, Inc.

The browser also shows a diagram of the MVC, MVP, and MVVM patterns. The MVC diagram shows a cycle between View, Controller, and Model. The MVP diagram shows a cycle between View, Presenter, and Model. The MVVM diagram shows a cycle between View, ViewModel, and Model, with Data Binding between View and ViewModel.

The code snippets shown are:

```
var model = {
  // model attributes
  appName: "Austin Aware",

  // model methods
  init: init,
  unitTests: unitTests
};

// Function init
// Usage: model.init();
// -----
// Initializes the model to a known state.

function init() {
  console.log("model.init");
}

// Function unitTests
// Usage: if (model.unitTests()) console.log("model unit tests passed");
// -----
// Run unit tests for model methods.

function unitTests() {
  console.log("model.unitTests");
  result = true;

  // put non-trivial unit tests here.

  return result;
}
```

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>This App Requires JavaScript</title>

  <!-- Load jQuery -->
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.1.1/jquery.min.js"></script>

  <!-- Load a nice font -->
  <link href="https://fonts.googleapis.com/css?family=Lato" rel="stylesheet">

  <!-- Load project styling. -->
  <link href="assets/css/view.css" rel="stylesheet" type="text/css">
</head>
<body>
  <!-- This section plus related CSS constitute the view for the application -->
  <div class="container">
    <h1>Hello, Austin.</h1>
  </div>

  <!-- Include the controller and model. -->
  <script src="assets/js/controller.js" type="text/javascript"></script>
  <script src="assets/js/model.js" type="text/javascript"></script>
</body>
</html>
```

```
$(document).ready(initMVC);

// Function: initMVC
// Usage: $(document).ready(initMVC);
// -----
// Initializes the model, view and controller. Most of the
// initial data comes from the model itself.

function initMVC() {
  console.log("initMVC");

  // Initialize the model, view, and controller.

  model.init();
  vInit(model);
  cInit();
}

// -----
// Controller Functions
// -----

// Function: cInit
// Usage: cInit();
// -----
// Initializes the controller by registering various callback functions
// that come to life in response to user input of some kind.

function cInit() {
  console.log("cInit");
}

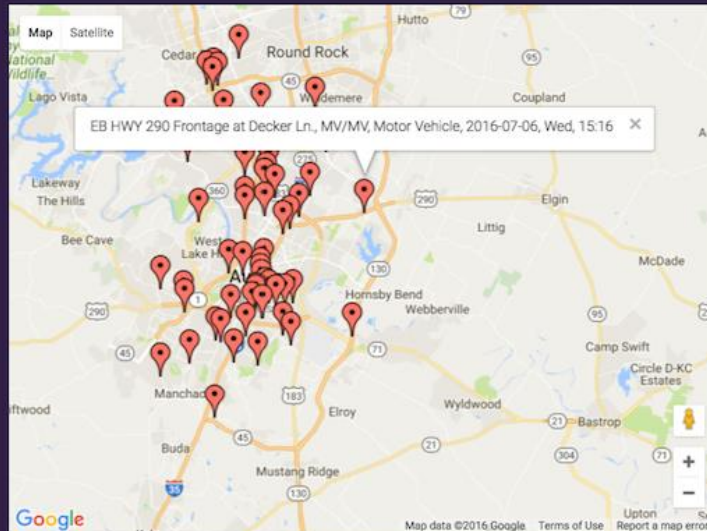
// -----
// View Functions
// -----

// Function: vInit
// Usage: vInit(model);
// -----
// Initializes the view / presentation layer with data from the model.
// Model data may include default settings in model.js as well as
// data from persistent storage.

function vInit(model) {
  console.log("vInit");
  vUpdateTitle(model.appName);
}

// Function: vUpdateTitle
// Usage: vUpdateTitle(model.appName);
// -----
// Updates the view title from the model.

function vUpdateTitle(nameStr) {
  $('#title').html(nameStr);
}
```



2016 Austin Traffic Fatalities

2015 Traffic Fatalities

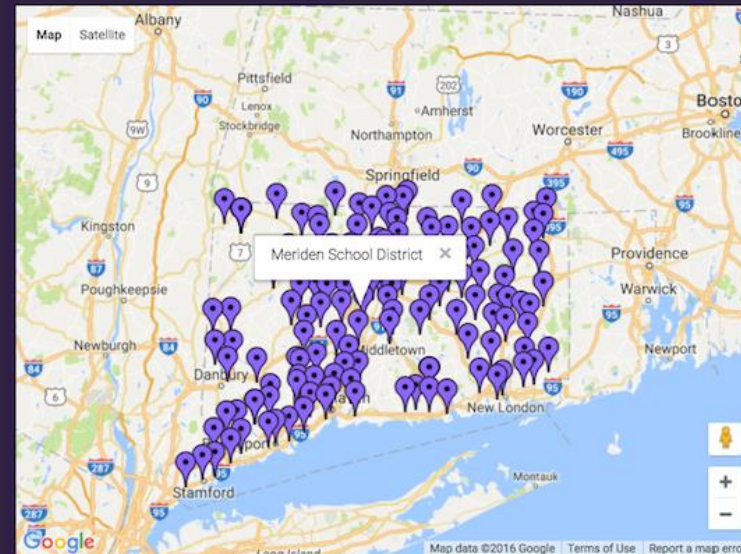
2016 Traffic Fatalities

Traffic Signals On Flash

Dangerous Dogs

Found Pets

Reset Map



School Districts of Connecticut

2015 Traffic Fatalities

2016 Traffic Fatalities

Traffic Signals On Flash

Dangerous Dogs

Found Pets

Reset Map





# Lessons Learned: Areas for Improvement





# Austin Aware

Improve our process:

Use daily scrum/stand-up to communicate.  
Leverage Trello / backlog better.



## Interpersonal:

Don't be silent. Be transparent about what you're doing.

Over communicate.

Is it relevant for near-term goals?

Struggle/strive but don't get bogged down.

Don't be intimidated. You have something to bring to the table.



# Lessons Learned: Things We Did Right





Did bottom-up agile-like development.

- Based in reality upon what we discovered from play and exploration.
- Not from overly-exalted top-down ambitions.
- Scope evolved to something suitable for our abilities.

Early deployment work-flow through Heroku.

Good architecture established early on allowed for cool scalability.



Austin Aware

Where do we go from here?



- Visual scalability with data-driven dropdown selection button.
- GUI sizzle with Google map clusters.
- Leverage filtering capabilities offered by SODA APIs or via Firebase to bring higher-order meaning to data.
- Find hot-spots and clusters.
- Add more cities and the ability to find places/new data-sources for places of interest added by user. This would augment our model in real-time.
- Google Earth 'fly-through' of data.
- For fatalities, perform data search against newspaper to bring up any press coverage.





Austin Aware

Q&A Time