

IRMA CRISIS MANAGEMENT PORTAL

Designed and Implemented
by

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Problem statement

Hurricane Irma has hit the United states of America hard, leaving people from many states in panic and fear.

Many of the civilians had problem with the following :

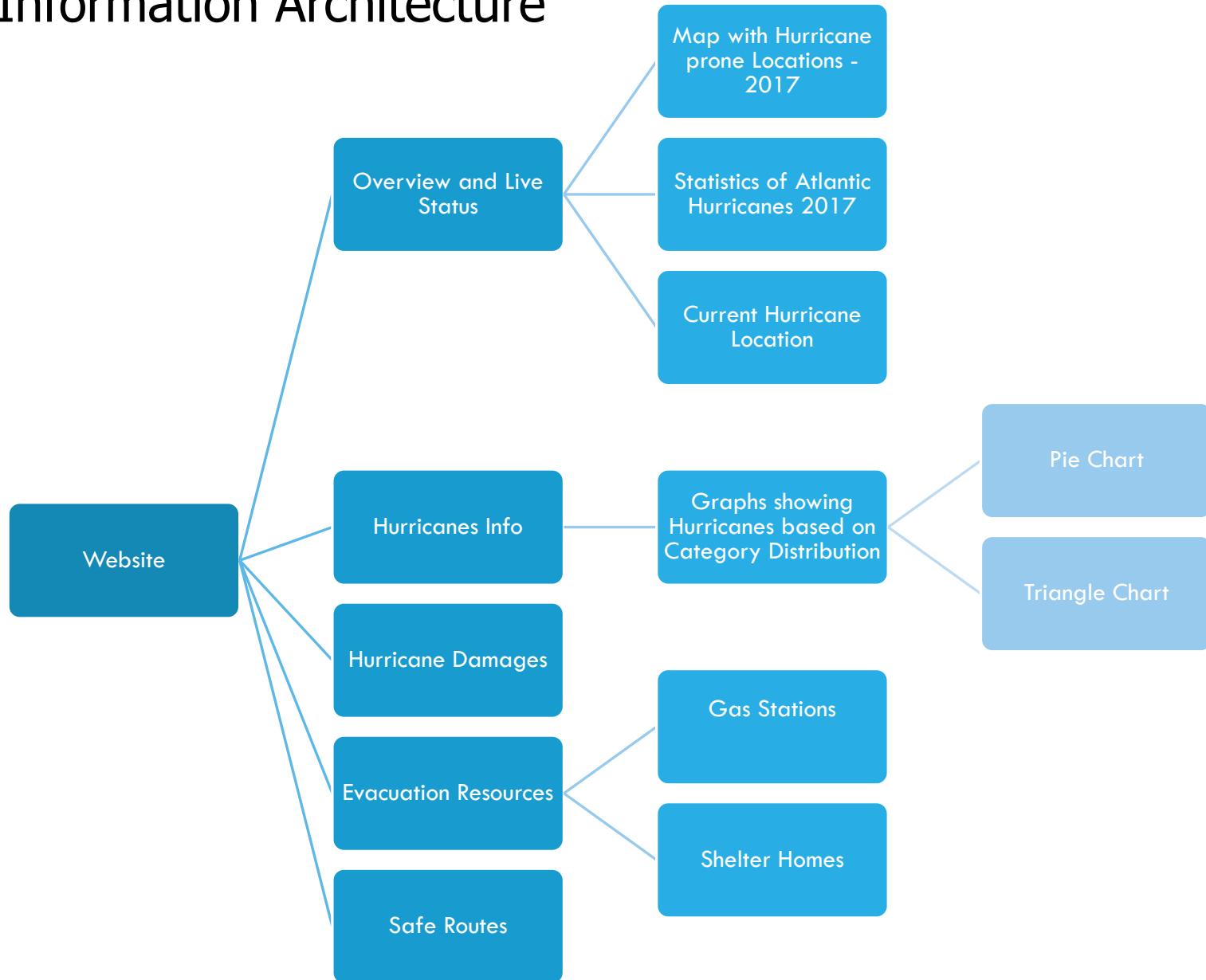
- No Real time access to news**
- Information about the current status of the hurricane**
- Evacuation Information**
- Safe Routes to travel during evacuation**
- Previous Statistics about hurricanes**

Introduction

What if a proper information–architecture is created to solve the issue and help individuals get the most of the website ?

- **Information Architecture and Navigation are the keys to the success of a website.**

Information Architecture



Key Design Features

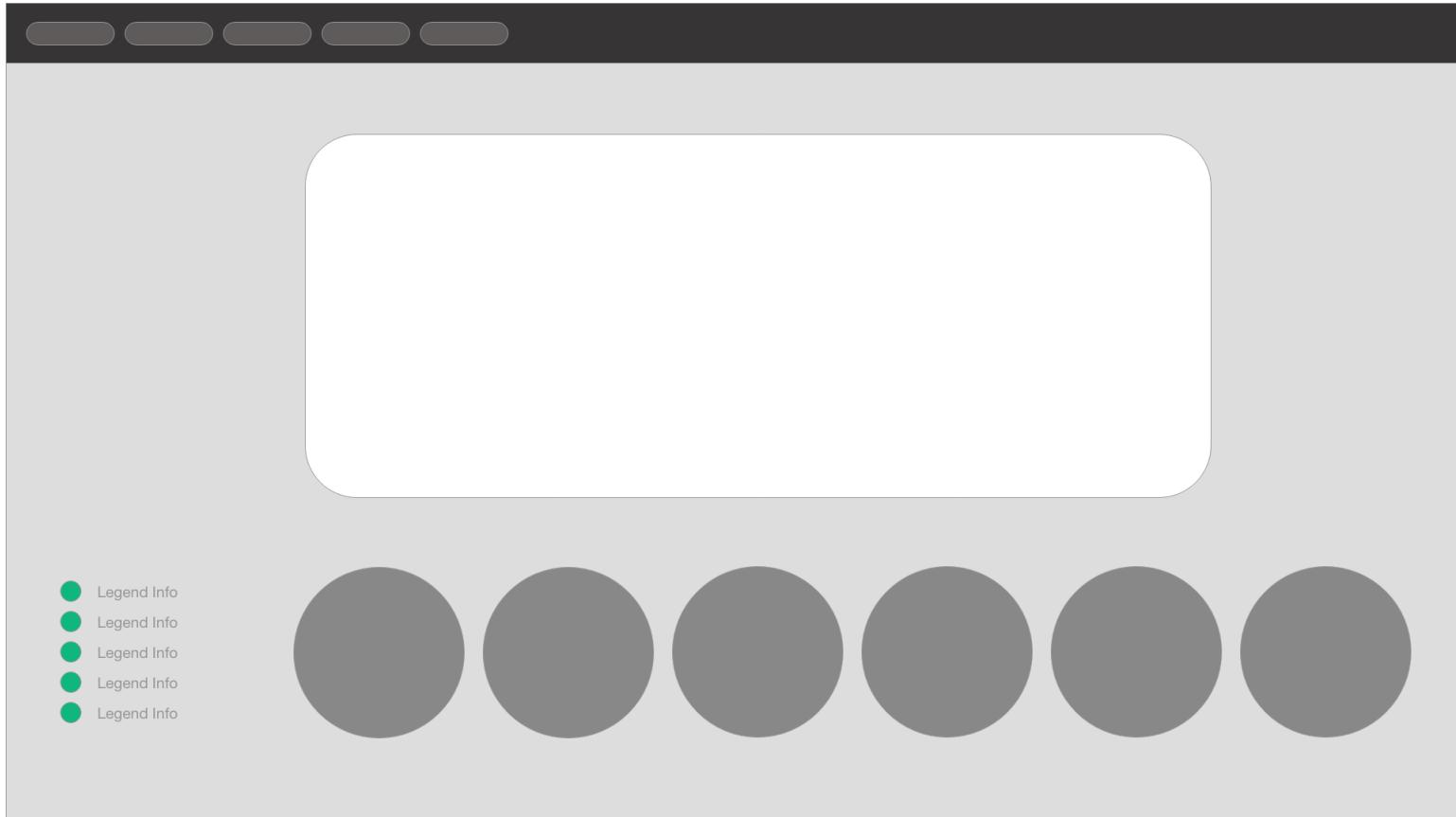
- Minimalism
- Emphasis on User Experience
- Subtle Animations and transition effects
- More than 15 different CSS effects/animations implemented.
- Consistency in Color Palette Selection

Animations and Interactions Implemented

- Pulsating and Blinking (*Map*)
- Circular Path Fills (*Map*)
- Slide in and Out
- Bar Chart – Grow
- Pie Chart – Interactive, Rotate and Fill
- Card layout Implemented with hover
- SVG Map Animations – Route Fill

Wireframes

- Wireframes were designed after the Research and Ideation phase using Adobe Experience Design. The wireframe for the homepage is shown below.



Demo Run – Portal

For Better interactions and animations use codd link

Home Hurricanes Damages Evacuation Resources Safe Routes

searchbar for Evacuation Resources...



- Hurricane Harvey
- Hurricane Irma - High
- Hurricane Irma - Mod
- Flood Warning
- Irma Current Status

Major Hurricanes 2017

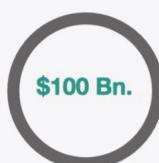
Total Loss incurred 2017

Maximum Winds Recorded

Lowest Pressure Rec.

Structres Damaged

Total Recorded Fatalities



Code Snippets for Pulsing Animation and Stats Ring Animations

```
svg {
  -webkit-transform: rotate(-90deg);
  transform: rotate(-90deg);
  width:160;
  height: 160;
}

.cir_anim {
  stroke-dasharray: 600; /* this value is the pixel circumference of the circle */
  stroke-dashoffset: 440;
}

.html .cir_anim {
  -webkit-animation: html 1s ease-out forwards;
  animation: html 1s ease-out forwards;
}

.css .cir_anim {
  -webkit-animation: css 1s ease-out forwards;
  animation: css 1s ease-out forwards;
}

@-webkit-keyframes html {
  to {
    stroke-dashoffset: 80; /* 50% would be 220 (half the initial value specified above) */
  }
}

@keyframes html {
  to {
    stroke-dashoffset: 80;
  }
}

@-webkit-keyframes css {
  to {
    stroke-dashoffset: 160;
  }
}

@keyframes css {
  to {
    stroke-dashoffset: 160;
  }
}
```

Code Snippets for Pulsing Animation and Stats Ring Animations

```
/*Pulse*/

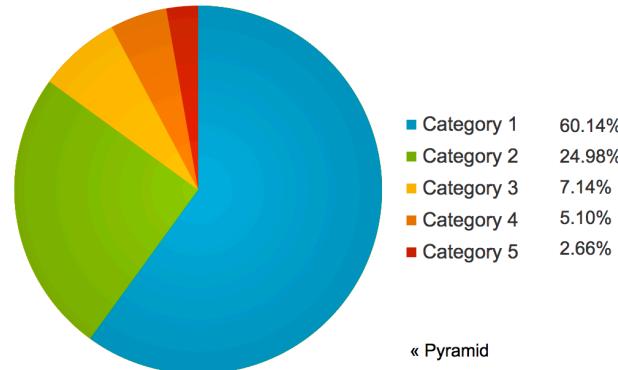
▼ @-webkit-keyframes blink {
    ▼ 0% {
        opacity: 1;
    }
    ▼ 50% {
        opacity: 0;
    }
    ▼ 100% {
        opacity: 1;
    }
}

▼ .blink{
    -webkit-animation: blink 2s;
    -webkit-animation-iteration-count: infinite;
}
```

Demo Run – Worst Hurricanes Page

Home Hurricanes Damages Evacuation Resources Safe Routes

Worst Hurricanes to hit USA in the past



Ike 2008	Katrina 2005
Rita 2005	Charley 2004
Ivan 2004	Galveston 1900

Code Snippet for Pie Chart Animation

```
/*Pie chart data (degree value) */
#pie_chart ul :nth-child(1) p, #galveston:target #pie_chart ul :nth-child(1) p{ -moz-transform: rotate(180deg); -webkit-transform: rotate(180deg); -o-transform: rotate(180deg);}
#pie_chart ul :nth-child(2) p, #galveston:target #pie_chart ul :nth-child(2) p{ -moz-transform: rotate(180deg); -webkit-transform: rotate(180deg); -o-transform: rotate(180deg);}
#pie_chart ul :nth-child(3) p, #galveston:target #pie_chart ul :nth-child(3) p{ -moz-transform: rotate(180deg); -webkit-transform: rotate(180deg); -o-transform: rotate(180deg);}
#pie_chart ul :nth-child(4) p, #galveston:target #pie_chart ul :nth-child(4) p{ -moz-transform: rotate(170deg); -webkit-transform: rotate(170deg); -o-transform: rotate(170deg);}
#pie_chart ul :nth-child(5) p, #galveston:target #pie_chart ul :nth-child(5) p{ -moz-transform: rotate(180deg); -webkit-transform: rotate(180deg); -o-transform: rotate(180deg);}
#pie_chart ul :nth-child(6) p, #galveston:target #pie_chart ul :nth-child(6) p{ -moz-transform: rotate(152deg); -webkit-transform: rotate(152deg); -o-transform: rotate(152deg);}
#pie_chart ul :nth-child(7) p, #galveston:target #pie_chart ul :nth-child(7) p{ -moz-transform: rotate(180deg); -webkit-transform: rotate(180deg); -o-transform: rotate(180deg);}
#pie_chart ul :nth-child(8) p, #galveston:target #pie_chart ul :nth-child(8) p{ -moz-transform: rotate(126deg); -webkit-transform: rotate(126deg); -o-transform: rotate(126deg);}
#pie_chart ul :nth-child(9) p, #galveston:target #pie_chart ul :nth-child(9) p{ -moz-transform: rotate(180deg); -webkit-transform: rotate(180deg); -o-transform: rotate(180deg);}
#pie_chart ul :nth-child(10) p, #galveston:target #pie_chart ul :nth-child(10) p{ -moz-transform: rotate(36deg); -webkit-transform: rotate(36deg); -o-transform: rotate(36deg);}
```

Code Snippet for Pyramid Chart Animation

```
#ivan:target #pyr_chart ul :nth-child(2) { height: 292px; }
#ivan:target #pyr_chart ul :nth-child(3) { height: 277px; }
#ivan:target #pyr_chart ul :nth-child(4) { height: 259px; }
#ivan:target #pyr_chart ul :nth-child(5) { height: 185px; }

#charley:target #pyr_chart ul :nth-child(2) { height: 292px; }
#charley:target #pyr_chart ul :nth-child(3) { height: 279px; }
#charley:target #pyr_chart ul :nth-child(4) { height: 266px; }
#charley:target #pyr_chart ul :nth-child(5) { height: 192px; }

#rita:target #pyr_chart ul :nth-child(2) { height: 293px; }
#rita:target #pyr_chart ul :nth-child(3) { height: 280px; }
#rita:target #pyr_chart ul :nth-child(4) { height: 271px; }
#rita:target #pyr_chart ul :nth-child(5) { height: 201px; }

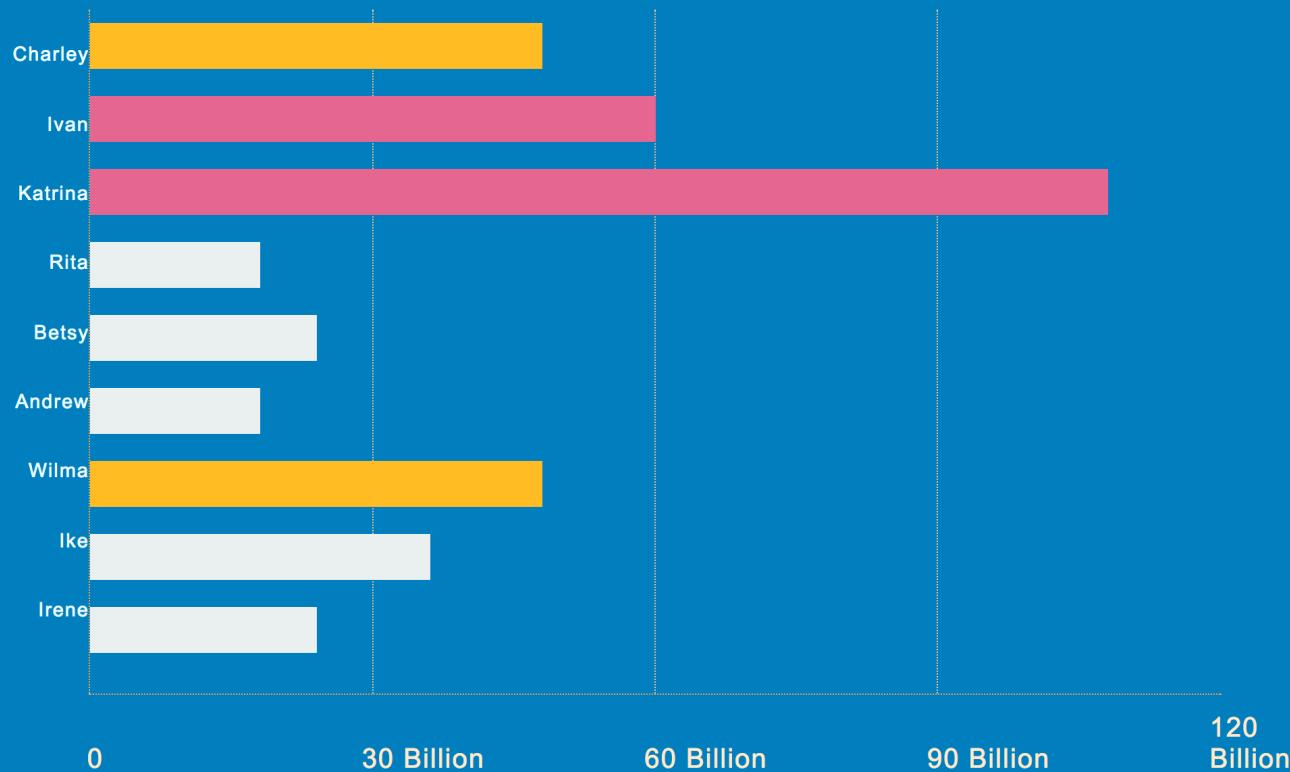
#katrina:target #pyr_chart ul :nth-child(2) { height: 293px; }
#katrina:target #pyr_chart ul :nth-child(3) { height: 282px; }
#katrina:target #pyr_chart ul :nth-child(4) { height: 274px; }
#katrina:target #pyr_chart ul :nth-child(5) { height: 205px; }

#ike:target #pyr_chart ul :nth-child(2) { height: 297px; }
#ike:target #pyr_chart ul :nth-child(3) { height: 290px; }
#ike:target #pyr_chart ul :nth-child(4) { height: 290px; }
#ike:target #pyr_chart ul :nth-child(5) { height: 269px; }
```

Demo Run – Damages by Hurricanes

Home Hurricanes **Damages** Evacuation Resources Safe Routes

Hurricanes and the Damages



Code Snippet for Bar Chart Animation

```
.bar .inner {  
background-color: #ecf0f1;  
position: absolute;  
bottom: 0;  
left: 0;  
top: 0;  
}  
  
.bar.pct-90 .inner {  
-webkit-animation-duration: 2s;  
-webkit-animation-name: grow-90;  
right: 10%;  
}  
  
.bar.pct-75 .inner {  
-webkit-animation-duration: 3s;  
-webkit-animation-name: grow-75;  
right: 25%;  
}  
  
.bar.pct-50 .inner {  
-webkit-animation-duration: 5s;  
-webkit-animation-name: grow-50;  
right: 50%;  
}  
  
.bar.pct-20 .inner {  
-webkit-animation-duration: 3s;  
-webkit-animation-name: grow-20;  
right: 80%;  
}
```

```
@-webkit-keyframes grow-50 {  
from { right: 100%; }  
to { right: 50%; }  
}  
  
@keyframes grow-20{  
from { right: 100%; }  
to { right: 80%; }  
}  
  
@-webkit-keyframes grow-20 {  
from { right: 100%; }  
to { right: 80%; }  
}  
  
@keyframes grow-30{  
from { right: 100%; }  
to { right: 70%; }  
}  
  
@-webkit-keyframes grow-30 {  
from { right: 100%; }  
to { right: 70%; }  
}
```

Demo Run – Evacuation Resources

Home Hurricanes Damages **Evacuation Resources** Safe Routes

All Shelters Gas Stations

Shelter  Accommodations - 56 8000 Point Meadows Dr. Jacksonville, FL Twin Lakes Elementary School Phone: 8139757380 twinlakes.mysdhc.org   	Gas Station  Available Flash Foods 462580 E State Rd 200, Yulee, FL 32097, United States (904) 225-0852 twinlakes.mysdhc.org   	Shelter  Accommodations - 56 8000 Point Meadows Dr. Jacksonville, FL Twin Lakes Elementary School Phone: 8139757380 twinlakes.mysdhc.org   	Shelter  Accommodations - 56 8000 Point Meadows Dr. Jacksonville, FL Twin Lakes Elementary School Phone: 8139757380 twinlakes.mysdhc.org   
Shelter  Accommodations - 56 8000 Point Meadows Dr. Jacksonville, FL Twin Lakes Elementary School Phone: 8139757380 twinlakes.mysdhc.org   	Gas Station  Not Available Flash Foods 462580 E State Rd 200, Yulee, FL 32097, United States (904) 225-0852 twinlakes.mysdhc.org   	Gas Station  Not Available Flash Foods 462580 E State Rd 200, Yulee, FL 32097, United States (904) 225-0852 twinlakes.mysdhc.org   	Shelter  Accommodations - 56 8000 Point Meadows Dr. Jacksonville, FL Twin Lakes Elementary School Phone: 8139757380 twinlakes.mysdhc.org   

Code Snippet for Evac Resources

```
/*Left Slide Transition*/
@keyframes slideInFromLeft {
    0% {
        transform: translateX(-100%);
    }
    100% {
        transform: translateX(0);
    }
}

.cards_main {
    animation: 1s ease-out 0s 1 slideInFromLeft;
    display: table;
    margin: 0 auto;
}

.space
{
    height: 10px;
}

.card:hover
{
    box-shadow: 0px 0px 150px #000000;
    z-index: 2;
    transition: all 200ms ease-in;
    transform: scale(1.2);
}
```

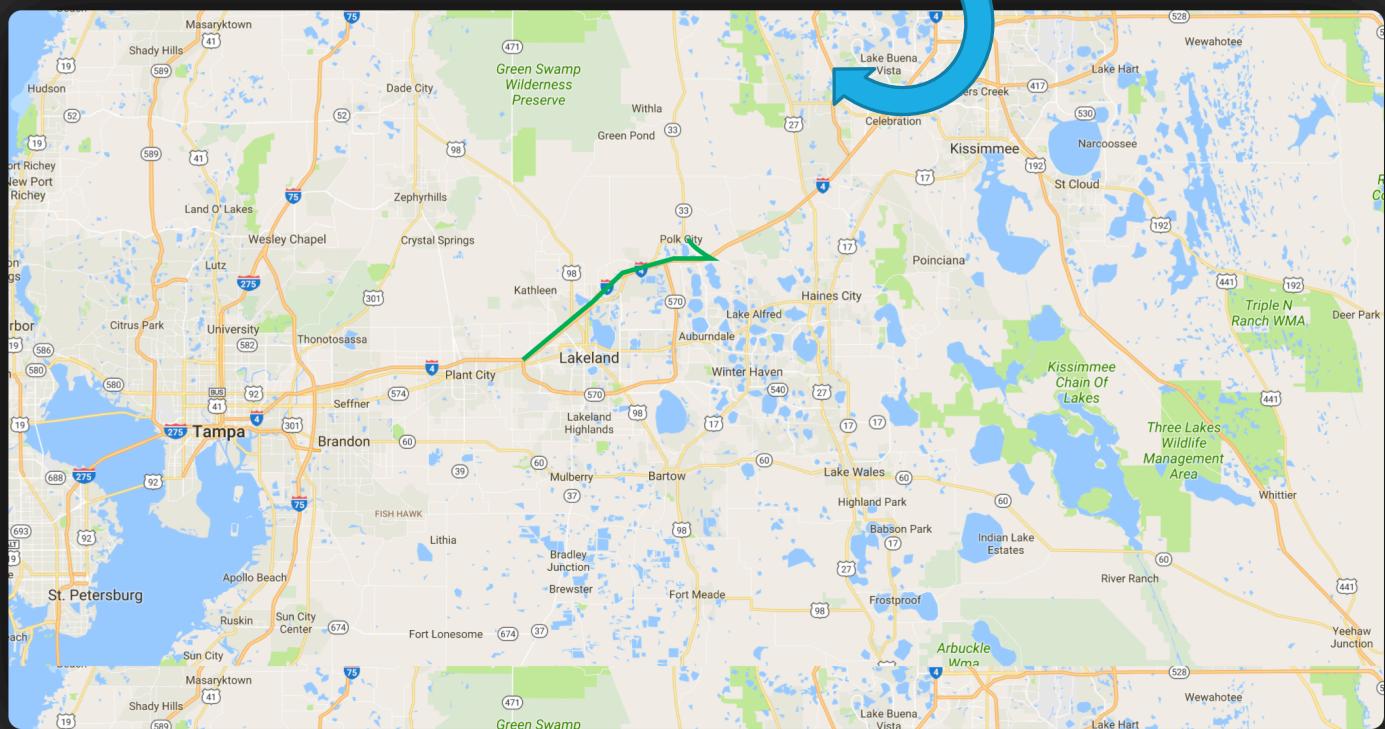
Demo Run – Safe Routes Animated Map

Home Hurricanes Damages Evacuation Resources **Safe Routes**

Safe Routes

The Routes are made in Adobe Illustrator and then exported to an SVG format to create paths. These paths are then animated using css.

Polk City - Tampa
Withla - Lakeland



Code Snippet for Path Animations

```
svg {
  position: absolute;
  width: 100%;
  height: 100%;
}

path {
  fill-opacity: 0;
  stroke:#27ae60;
  stroke-width: 6;
  stroke-dasharray: 870;
  stroke-dashoffset: 870;
  animation-name: draw;
  animation-duration: 7s;
  animation-iteration-count: 10;
  animation-timing-function: linear;
}

@keyframes draw {
  to {
    stroke-dashoffset: 0;
  }
}
```

Test Results

Objective : To test the usability of a the Portal

User Demographics

- User Count : 20
- Ages : 18-27
- Audience : All Streams (Atlanta and Florida Residents)

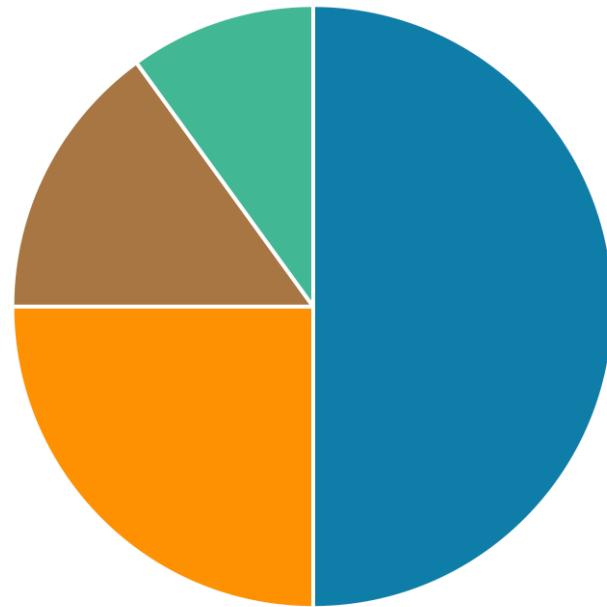
Impressions to be captured

- First impressions of the webpage
- The benefits users receive from reading the .
- How difficult or easy it is for the users to complete their assigned tasks
- Particular likes or dislikes about the webpage
- Readability
- Usability
- Ease of accessing Pages and Navigation

Tasks and Questions Asked

- What do you understand the purpose of the webpage to be? Was this purpose clear from the beginning?
- How easy was the content to digest?
- How long did it take you to complete your tasks ?
- Did you find the web page Interactive and Fun ?
- What did you like about the webpage?
- What did you dislike about the webpage?
- Did you experience any difficulties on the webpage?
- What was the overall quality of your experience? How did you feel at the end of the exercise?
- What could be done to improve the webpage content or presentation?
- Do you have any other comments or suggestions?

Overall Portal Quality



■ Excellent ■ Very Good ■ Good ■ Average

(20 users)

Positives

- Colors and Fonts
- Animations
- Usability
- Transitions
- Interactivity
- Useful
- Quick

Suggestions

- More States could be included
- Some more implementations could be developed
- Current Location can be included (JS is needed for this)



THANKS FOR YOUR TIME