Litmus Live Week 2020

Thursday, September 17
Benjamin Djang

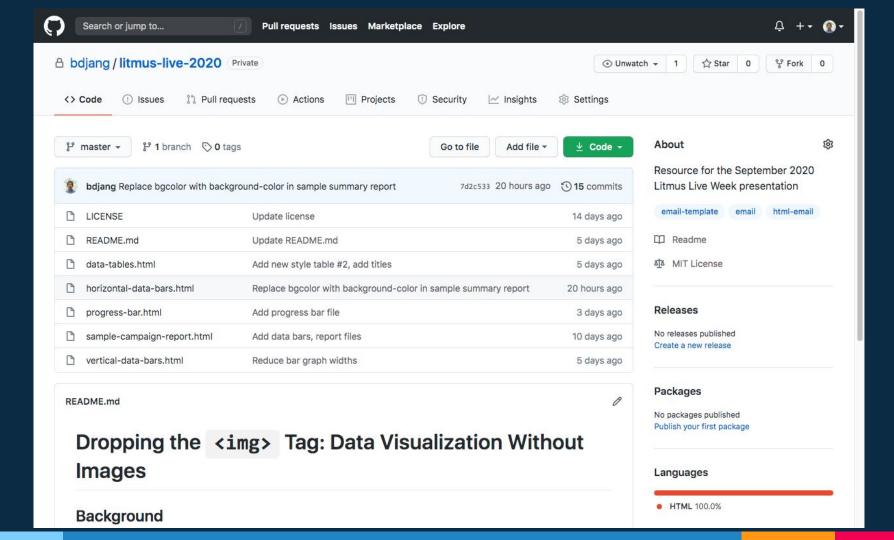
Dropping the Tag:

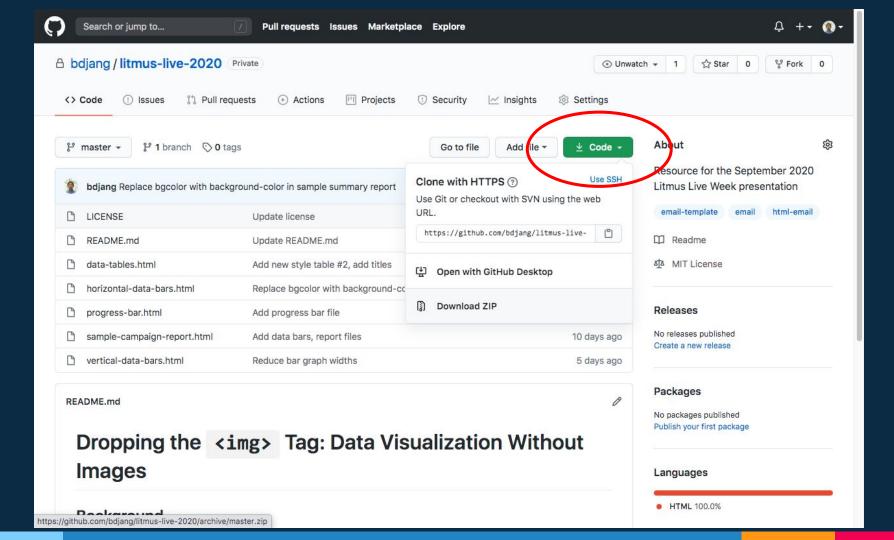
Data Visualization Without Images

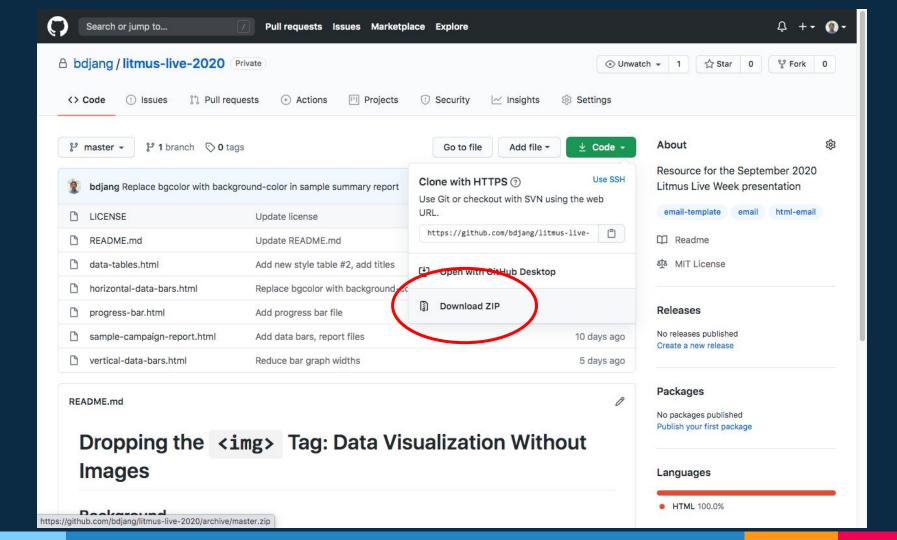
Link to Resources

github.com/bdjang/litmus-live-2020

- Code samples for horizontal data bars, vertical data bars, data tables, and a sample email campaign report
- PDF of presentation slides
- Links to additional repos



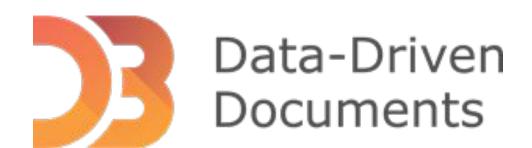




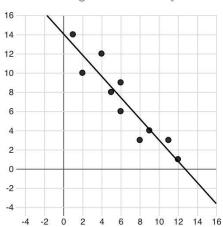
O. Data Viz in Email

Let's look at the current state of data visualization in email

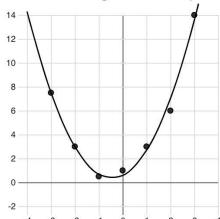




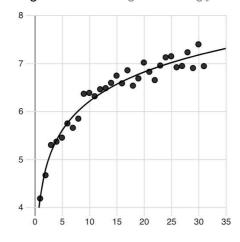
Linear d3.regressionLinear()



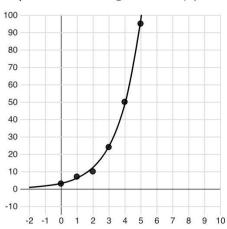
Quadratic d3.regressionQuad()



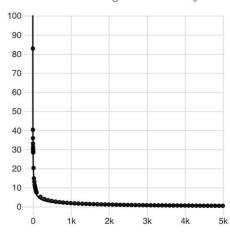
Logarithmic d3.regressionLog()



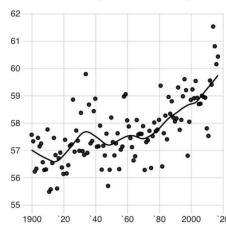
Exponential d3.regressionExp()



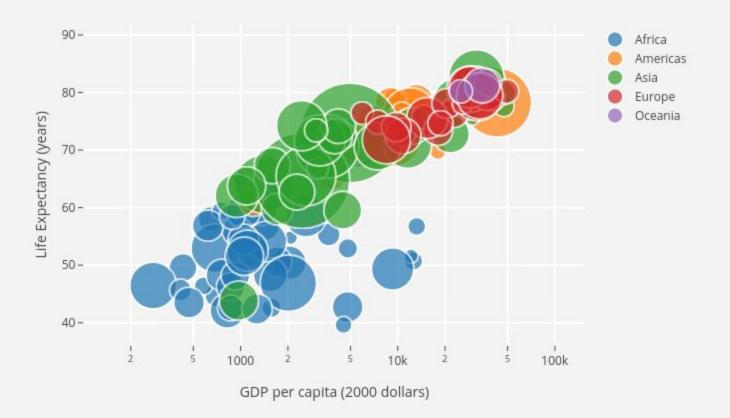
Power law d3.regressionPow()

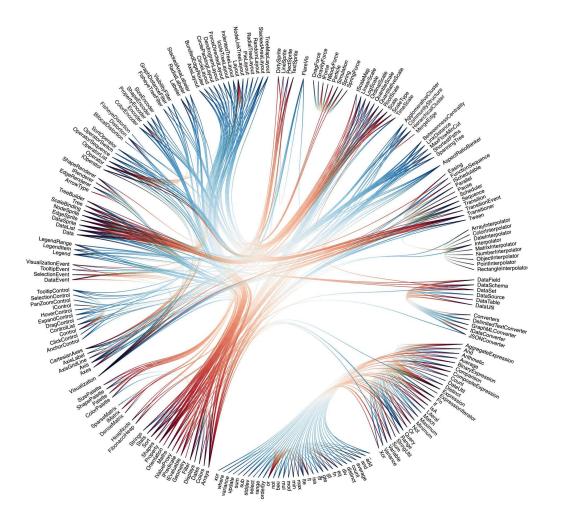


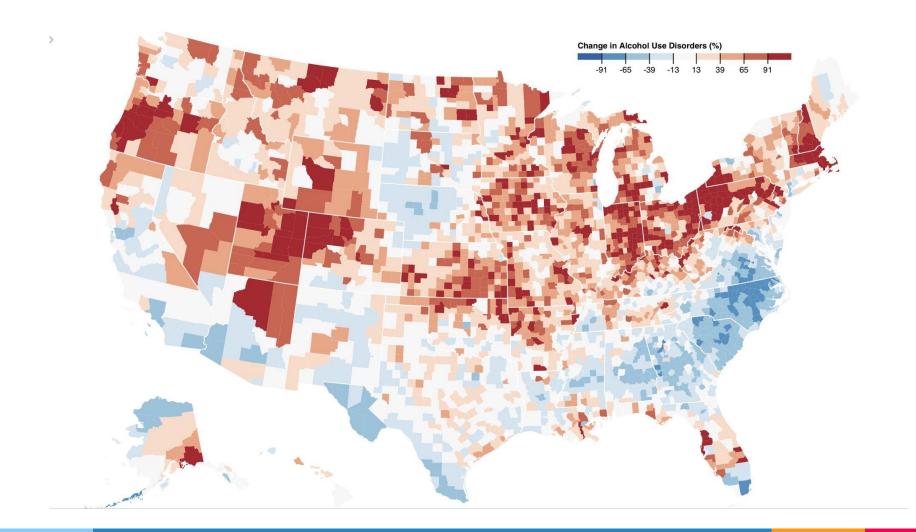
LOESS d3.regressionLoess()



Life Expectancy v. Per Capita GDP, 2007







Restrictions in Email Coding

JavaScript not allowed

HTML/CSS only

• Email client restrictions

Is there another way to display data in email without using images?



Images aren't the only way to display data effectively in email templates. Through the use of simple table elements and some coding techniques, it's possible to display interactive data tables, detailed bar charts, and progress bars.

Presentation Overview

First Second Third HOW WHY **EXAMPLE** Using simple table Benefits of replacing an Sharing campaign elements and some image with data built performance results coding techniques for using code through a special email data visualization campaign report template

1. Coding Data in Email

Progress bars, bar charts, and data tables

Progress Bar

Progress YTD Year Goal

Revenue YTD

\$12,345.00

Revenue Left to Reach Goal

\$1,234.00

```
2

2
2

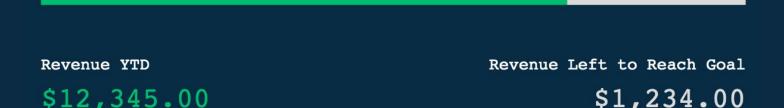
2

</t
```

```
Progress YTD
Year Goal
```

Progress YTD Year Goal

```
 --
line-height: 1.5em; margin: 0; padding: 40px 0 0 0;">Revenue YTD
   line-height: 1.5em; margin: 0; padding: 40px 0 0 0;">Revenue Left to Reach Goal
 <td align="left" width="300" style="color: #0dbd67; font-weight: 400; font-size: 24px; font-family: courier;
     line-height: 1.5em; margin: 0; padding: 0;">$12,345.00
   line-height: 1.5em; margin: 0; padding: 0;">$1,234.00
```



Progress YTD

Year Goal

Horizontal Bar Chart

Sample Summary Report



Label Label

Label Label

2019 Q1 \$77,241.12

2019 Q1 \$77,241.12



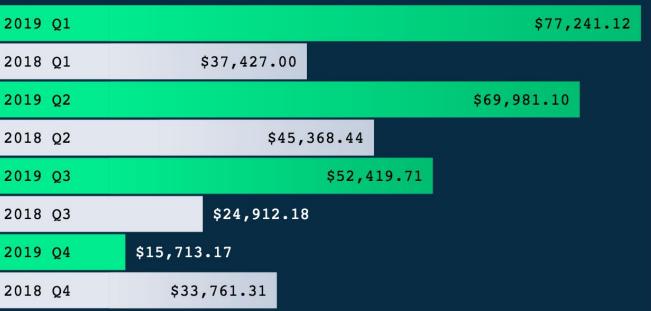
```
<!-- DATA BAR #1 --->
  <td width="300" align="left" style="background-color: #0dbd67; color: #000000; font-weight: 400; font-size: 14px; font
                -family: courier; line-height: 1.5em; margin: 0; padding: 0; height="31"> 2019 Q1
             <td width="300" align="right" style="background-color: #0dbd67; color: #000000; font-weight: 400; font-size: 14px; font
                -family: courier; line-height: 1.5em; margin: 0; padding: 0; height="31">$77,241.12 
           <!-- end data bar #1 -->
  <!-- DATA BAR #2 -->
     <td width="300" align="left" style="background-color: #0dbd67; color: #000000; font-weight: 400; font-size: 14px; font
                -family: courier; line-height: 1.5em; margin: 0; padding: 0;" height="31"> 2019 Q2
             <td width="200" align="right" style="background-color: #0dbd67; color: #000000; font-weight: 400; font-size: 14px; font
                -family: courier; line-height: 1.5em; margin: 0; padding: 0; height="31">$57,123.53 
           <!-- end data bar #2 -->
```

2019 Q1 \$77,241.12 2019 Q1 \$57,123.53

```
<!-- DATA BAR #1 --->
  <td width="300" align="left" style="background-color: #0dbd67; color: #000000; font-weight: 400; font-size: 14px; font
                -family: courier; line-height: 1.5em; margin: 0; padding: 0; height="31"> 2019 01
              <td width="300" align="right" style="background-color: #0dbd67; color: #000000; font-weight: 400; font-size: 14px; font
                -family: courier; line-height: 1.5em; margin: 0; padding: 0; height="31">$77,241.12 
           <!-- end data har #1 -->
  <!-- DATA BAR #2 -->
     <td width="300" align="left" style="background-color: #0dbd67; color: #000000; font-weight: 400; font-size: 14px; font
                -family: courier; line-height: 1.5em; margin: 0; padding: 0;" height="31"> 2019 Q2
              <td width="200" align="right" style="background-color: #0dbd67; color: #000000; font-weight: 400; font-size: 14px; font
                -family: courier; line-height: 1.5em; margin: 0; padding: 0; height="31">$57,123.53 
           <!-- end data bar #2 -->
```

Horizontal Bar Chart

Sample Summary Report



Without linear-gradient:

2019 Q1 \$77,241.12

With linear-gradient:

2019 Q1 \$77,241.12

background: linear-gradient(to right,
#10ed81 0%, #0dbd67 100%);

```
Inactive hover state:
```

```
2019 Q1 $77,241.12
```

Active hover state:

```
2019 Q1 $77,241.12
```

```
.className:hover {
    background: linear-gradient(to right,
    #10ed81 0%, #10ed81 100%);
}
```

```
Inactive hover state:
```

```
2019 Q1
```

Active hover state:

```
2019 Q1 $77,241.12
```

```
.className:hover {
    color: #000000 !important;
}
```

Vertical Bar Chart



```
<!-- Vertical data bar -->
   <!-- Corresponding label -->
   <td align="center" height="10" style="color: #ffffff; font-size: 12px; font-family: courier;
     padding: 0 0 10px 0;">2013
```

2013





```
<!-- Vertical data bar --->
 <!-- Top label -->
     padding: 0; text-align: center; white-space: nowrap;">$1,234
    <!-- Corresponding label -->
<tr-
 2013
```

Vertical Bar Chart



Data Tables

Table #1

| | Column #1 | Column #2 | Column #3 |
|--------|------------|-------------|------------|
| Row #1 | 123 | 456 | 789 |
| Row #2 | 240,544 | 137,832 | 558,130 |
| Row #3 | 18.47% | 18.47% | 18.47% |
| Row #4 | 0.47% | 0.17% | 0.27% |
| Row #5 | 18 | 47 | 17 |
| Row #6 | \$1,348.47 | \$12,118.47 | \$1,831.47 |

```
>
```



The adjacent sibling combinator separates two selectors and matches the second element only if it immediately follows the first element, and both are children of the same parent element.

https://developer.mozilla.org/en-US/docs/Web/CSS/Adjacent_sibling_combinator

Highlights the entire table row when hovering over the first column

```
.row1:hover,
.row1:hover + td,
.row1:hover + td + td,
.row1:hover + td + td + td {
    background-color: #ffcac7 !important;
```

Table #1

| | Column #1 | Column #2 | Column #3 |
|--------|------------|-------------|------------|
| Row #1 | 123 | 456 | 789 |
| Row #2 | 240,544 | 137,832 | 558,130 |
| Row #3 | 18.47% | 18.47% | 18.47% |
| Row #4 | 0.47% | 0.17% | 0.27% |
| Row #5 | 18 | 47 | 17 |
| Row #6 | \$1,348.47 | \$12,118.47 | \$1,831.47 |

Highlights individual table cells

```
.row1 + td:hover,
.row1 + td + td:hover,
.row1 + td + td + td:hover, {
    background-color: #ffcac7 !important;
}
```

Table #1

| | Column #1 | Column #2 | Column #3 |
|--------|------------|-------------|------------|
| Row #1 | 123 | 456 | 789 |
| Row #2 | 240,544 | 137,832 | 558,130 |
| Row #3 | 18.47% | 18.47% | 18.47% |
| Row #4 | 0.47% | 0.17% | 0.27% |
| Row #5 | 18 | 47 | 17 |
| Row #6 | \$1,348.47 | \$12,118.47 | \$1,831.47 |

2.

Benefits of Coding Data

Comparing Images vs. Data Built Using Code



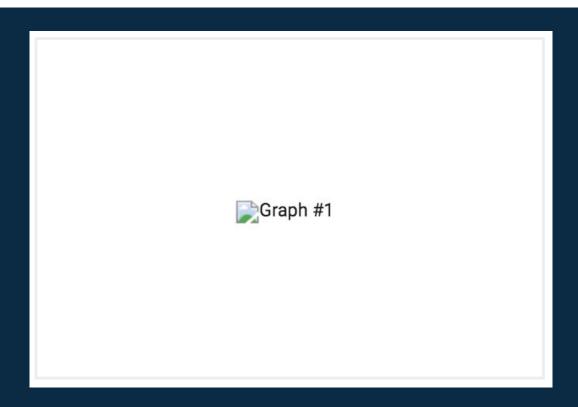
There are benefits for replacing an image with data built using code: data will be displayed even when image auto-loading is turned off; email file size and total email load time will decrease; data coded in HTML/CSS is more accessible than data shown in images.

▶ Image Auto Loading

Data will display even when image auto-loading is turned off



Images are not displayed. Display images below



Users with auto-loading images turned off will still be able to view the intended data.



Users with auto-loading images turned off will still be able to view the intended data.

Good morning.

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Soluta ipsam dolore suscipit dignissimos cum ipsum veritatis nemo adipisci amet laborum! Illo voluptatibus labore aspernatur, rem qui, voluptates mollitia placeat. Persoiciatis.

View in browser



Email KPIs Summary:

- Lorem ipsum dolor sit amet, consectetur adipisicing elit.
 Reprehenderit inventore magni porro, ex adipisci veniam aliquam.
 Sit quam deserunt, voluptas expedita veritatis iste a repellendus ad corporis nobis dolore voluptatum!
- Lorem ipsum dolor sit amet, consectetur adipisicing elit. Optio earum ad asperiores officia aperiam nemo quo dolor iusto, quidem in. Iure enim cumque fugiat aliquam sapiente in sed, modi placeat.

⊋Graph #3

Sales/Revenue Summary:

 Lorem ipsum dolor sit amet, consectetur adipisicing elit. Itaque distinctio dolores id voluptatum aperiam, modi illo fugiat quod, et deserunt nihil inventore ipsum sunt provident, esse minima voluptate. Excepturi, nulla?



Lorem ipsum dolor sit amet, consectetur adipisicing elit. Soluta ipsam dolore suscipit dignissimos cum ipsum veritatis nemo adipisci amet laborum! Illo voluptatibus labore aspernatur, rem qui, voluptates mollitia placeat. Persoiciatis.

View in browser



| Year Q2 | Avg. List Size | Avg. Clicks | Avg. Bounces |
|---------|----------------|-------------|--------------|
| 2020 Q2 | 123,456 | 12,345 | 123 |
| 2019 Q2 | 123,456 | 12,345 | 1,234 |
| 2018 Q2 | 123,456 | 1,234 | 1,234 |

Email KPIs Summary:

- Lorem ipsum dolor sit amet, consectetur adipisicing elit.
 Reprehenderit inventore magni porro, ex adipisci veniam aliquam.
 Sit quam deserunt, voluptas expedita veritatis iste a repellendus ad corporis nobis dolore voluptatum!
- Lorem ipsum dolor sit amet, consectetur adipisicing elit. Optio earum ad asperiores officia aperiam nemo quo dolor iusto, quidem in. Iure enim cumque fugiat aliquam sapiente in sed, modi placeat.

Newsletter Total Revenue

| 2020 Q2 | | \$55,173.92 | |
|---------|-------------|-------------|-------------|
| 2019 Q2 | | | \$70,026.48 |
| 2018 O2 | \$28,910.00 | | |

Sales/Revenue Summary:

 Lorem ipsum dolor sit amet, consectetur adipisicing elit. Itaque distinctio dolores id voluptatum aperiam, modi illo fugiat quod, et deserunt nihil inventore ipsum sunt provident, esse minima voluptate. Excepturi, nulla?



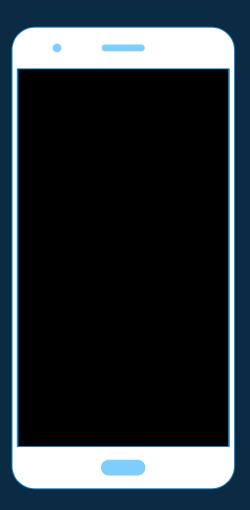
Image Auto Loading

Data will display even when image auto-loading is turned off

Email Load Time

Email file size and total email load time will decrease

Any data coded in HTML/CSS will render almost immediately



Any data coded in HTML/CSS will render almost immediately since calls to a server to download images will not be required.



Replacing images of data with coded versions can decrease the total email load time and email file size. This will make the email load faster which will benefit users.



Image Auto Loading

Data will display even when image auto-loading is turned off

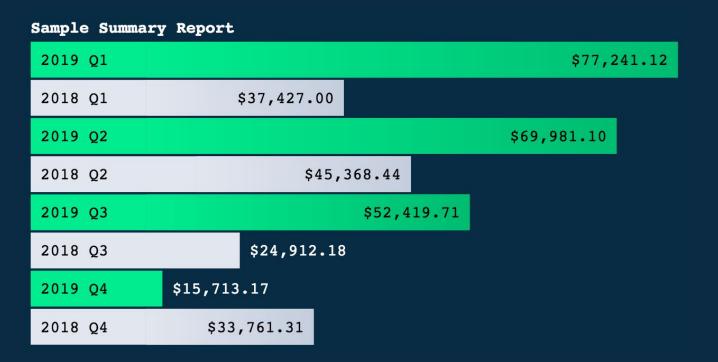
Email Load Time

Email file size and total email load time will decrease

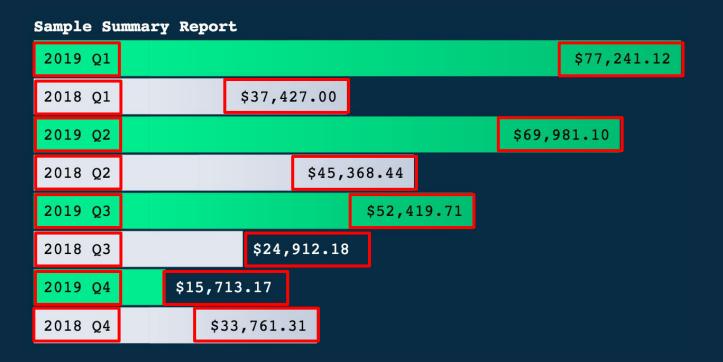
Accessibility

Coded data is more accessible than data displayed in images

- ALT text is used to describe the contents of an image when they are blocked or unable to load
- Visually impaired readers rely on ALT text for their screen readers to understand the contents of an image



 Relying on ALT text to describe data figures, graphs, and charts is not a solution in my opinion.



• Data coded in HTML/CSS contains live text.

Screen readers will be able to pick up on the data.

3. Example: Email Report

Sharing campaign performance results with my team

Example: Email Report

- An effective way to share campaign performance results with my colleagues.
- I personally use these templates to highlight weekly, quarterly, and yearly email campaign results.

Example: Email Report

• These email reports serve as a resource for me and my colleagues to discuss the results of important campaigns, company goals, and potential next steps.

Thanks! Any questions?

You can find me at:

bdjang@gmail.com

https://github.com/bdjang