

UI in a web-app



CSS

Global
HD

CSS preprocessors

- extend functionality of the CSS
- requires tooling that generates .css file for browsers
- popular choices Sass, Less, Stylus
- alternative PostCSS

Sass

- sass-lang.com
- variables
- nesting
- operator
- mixins/inheritance

PostCSS

- <https://postcss.org>
- a tool for transforming CSS with JavaScript
- useful plugins: Autoprefixer, CSS Modules, stylelint

Autoprefixer

- <https://github.com/postcss/autoprefixer>
- <https://caniuse.com>

```
::placeholder {  
  color: gray;  
}  
  
.image {  
  background-image: url(image@1x.png);  
}  
@media (min-resolution: 2dppx) {  
  .image {  
    background-image: url(image@2x.png);  
  }  
}
```

```
::-webkit-input-placeholder {  
  color: gray;  
}  
  
::-moz-placeholder {  
  color: gray;  
}  
  
:-ms-input-placeholder {  
  color: gray;  
}  
  
::-ms-input-placeholder {  
  color: gray;  
}  
  
::placeholder {  
  color: gray;  
}  
  
.image {  
  background-image: url(image@1x.png);  
}  
  
@media (-webkit-min-device-pixel-ratio: 2),  
       (-o-min-device-pixel-ratio: 2/1),  
       (min-resolution: 2dppx) {  
  .image {  
    background-image: url(image@2x.png);  
  }  
}
```



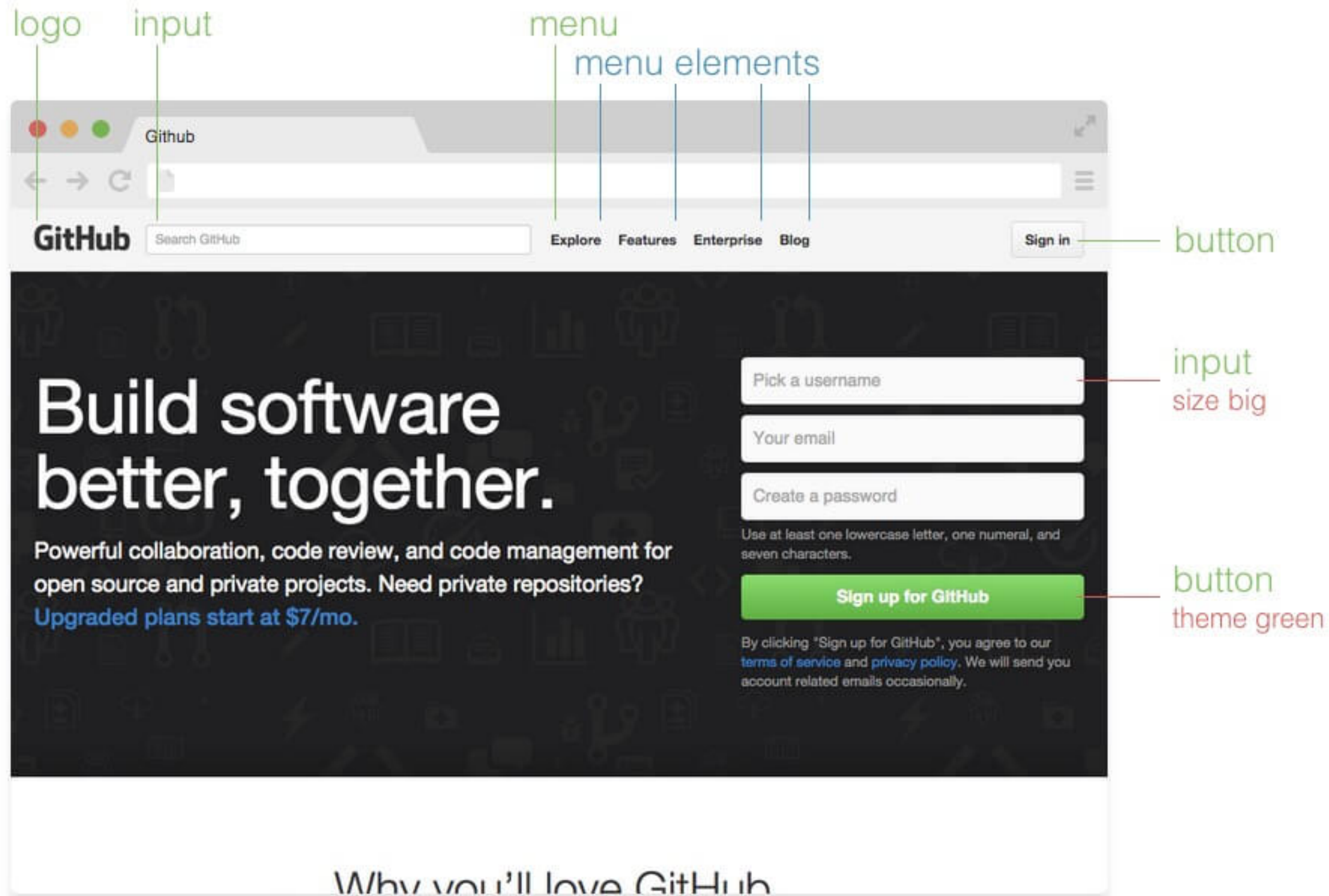

Resolving selector conflicts

- Naming conventions: BEM, SMACSS, Atomic, ...
- CSS-Modules
- CSS in JS
- ...

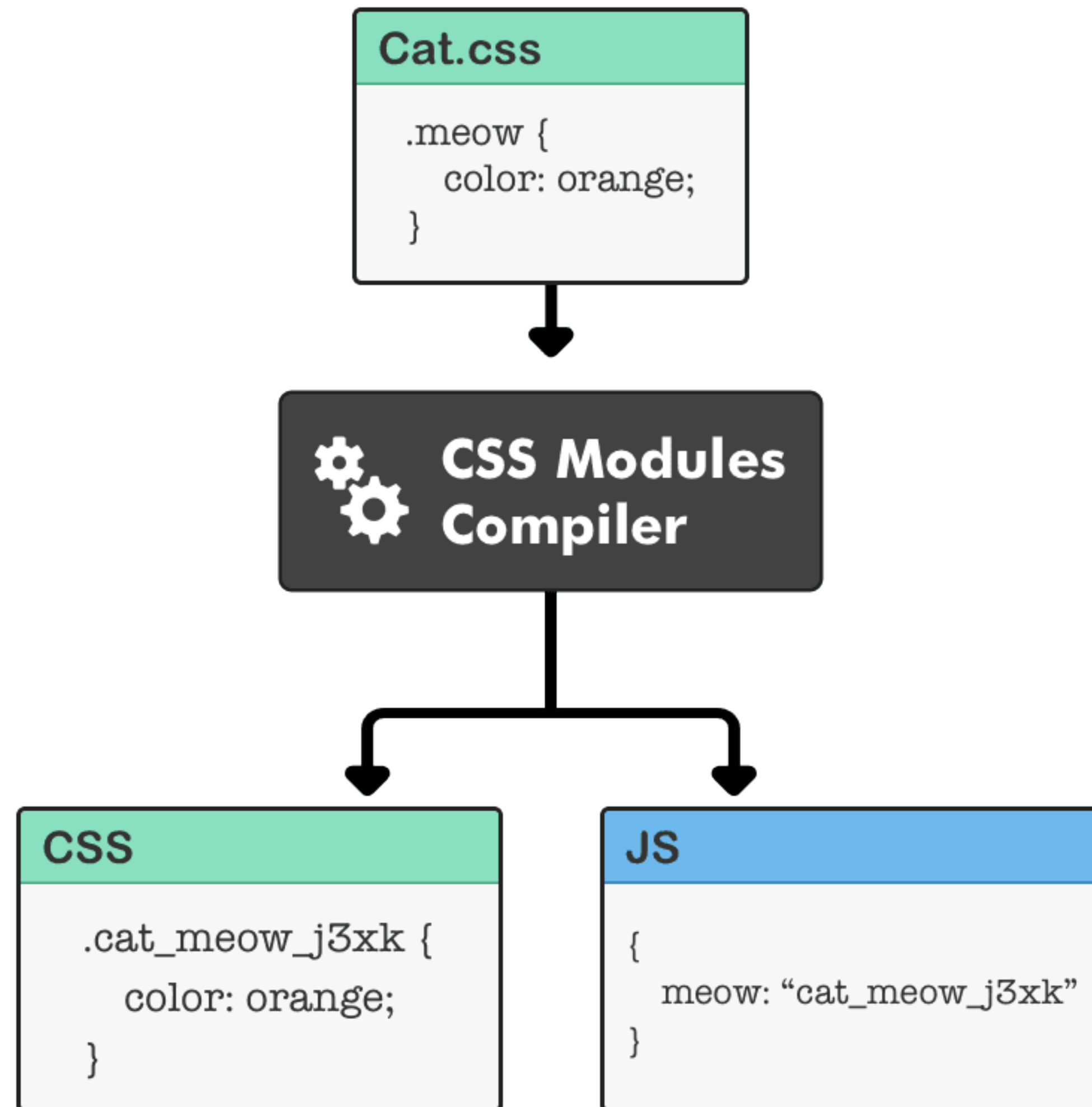
BEM

```
<button class="button">
  Normal button
</button>
<button class="button button--state-success">
  Success button
</button>
<button class="button button--state-danger">
  Danger button
</button>
```

```
.button {
  display: inline-block;
  border-radius: 3px;
  padding: 7px 12px;
  border: 1px solid #D5D5D5;
  background-image: linear-gradient(#EEE, #DDD);
  font: 700 13px/18px Helvetica, arial;
}
.button--state-success {
  color: #FFF;
  background: linear-gradient(#79D858, #569E3D);
  border-color: #4A993E;
}
.button--state-danger {
  color: #900;
}
```



CSS Modules



< ---

```
const Button = styled.a`
  display: inline-block;
  border-radius: 3px;
  padding: 0.5rem 0;
  margin: 0.5rem 1rem;
  width: 11rem;
  background: transparent;
  color: white;
  border: 2px solid white;

  ${props => props.primary && css`
    background: white;
    color: palevioletred;
  `}
`
```

```
return (
  <div>
    <Button
      href="https://google.com"
      target="_blank"
      rel="noopener"
      primary
    >
      GitHub
    </Button>
    <Button as={Link} href="/docs">
      Documentation
    </Button>
  </div>
)
```


Motivation for <👉>

- automatic critical CSS
- no class name collisions
- easier deletion of CSS
- dynamic styling using props
- automatic vendor prefixing

DEMO

tiny.cc/ui-demo

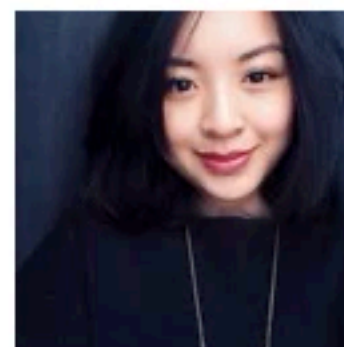
UI Frameworks

- Tailwind
- Material-UI (<https://material-ui.com>)
- Bootstrap (<https://react-bootstrap.github.io>, <https://getbootstrap.com>)
- Semantic-UI





```
1 <div class="bg-white rounded-lg p-6">
2   
3   <div>
4     <h2>Erin Lindford</h2>
5     <div>Customer Support</div>
6     <div>erinlindford@example.com</div>
7     <div>(555) 765-4321</div>
8   </div>
9 </div>
```



Erin Lindford
Customer Support
erinlindford@example.com
(555) 765-4321

Material UI

- material-ui.com
- <https://material-ui.com/components/bottom-navigation/>
- <https://material-ui.com/components/drawers/>
- <https://material-ui.com/components/app-bar/>
- <https://material-ui.com/components/pickers/>

Useful tools

- <https://github.com/css-modules/css-modules>
- <https://postcss.org/>
- <https://sass-lang.com/>
- <https://www.styled-components.com/>
- <https://material-ui.com/>
- <https://css-tricks.com/snippets/css/a-guide-to-flexbox/>