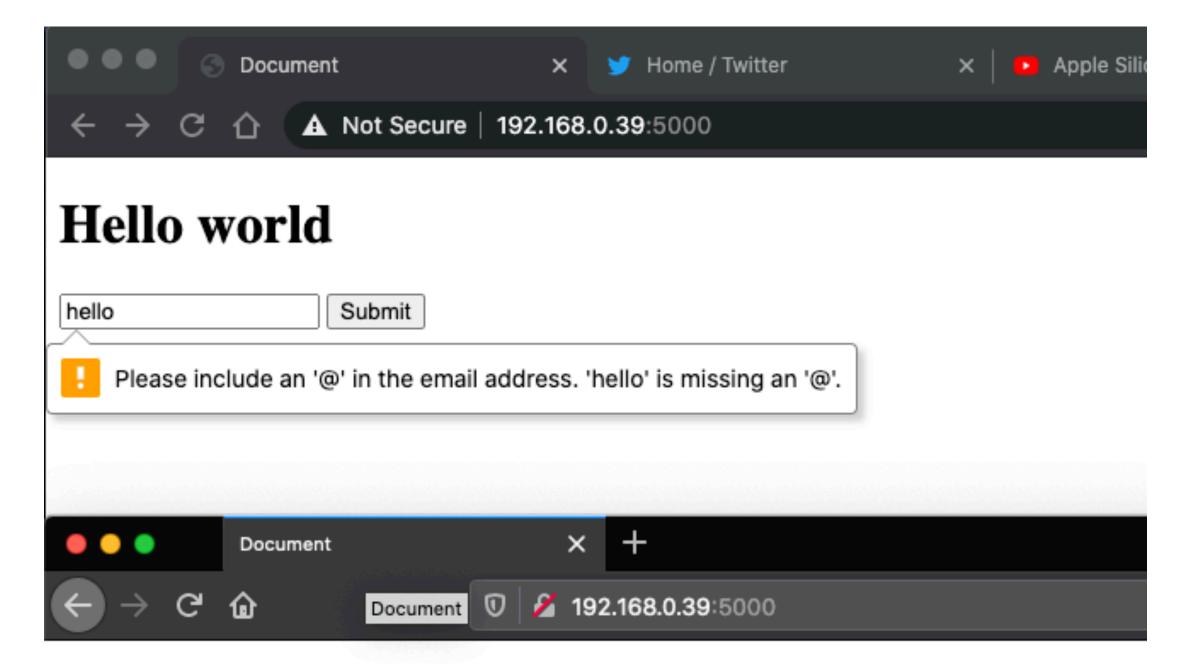
Bootstrap

A brief introduction

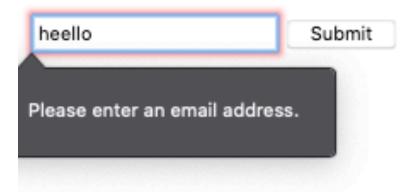
Bootstrap is a *frontend-tool kit* with a **responsive grid system** and prebuilt components with powerful javascript plugins for building cross browser websites

Cross browser

- Common problem in web development
 - Javascript
 - CSS
 - other categories
- •We should have better handle on what and how the messages are being displayed.
- •Bootstrap uses Reboot to handle these inconsistent styling across browsers.

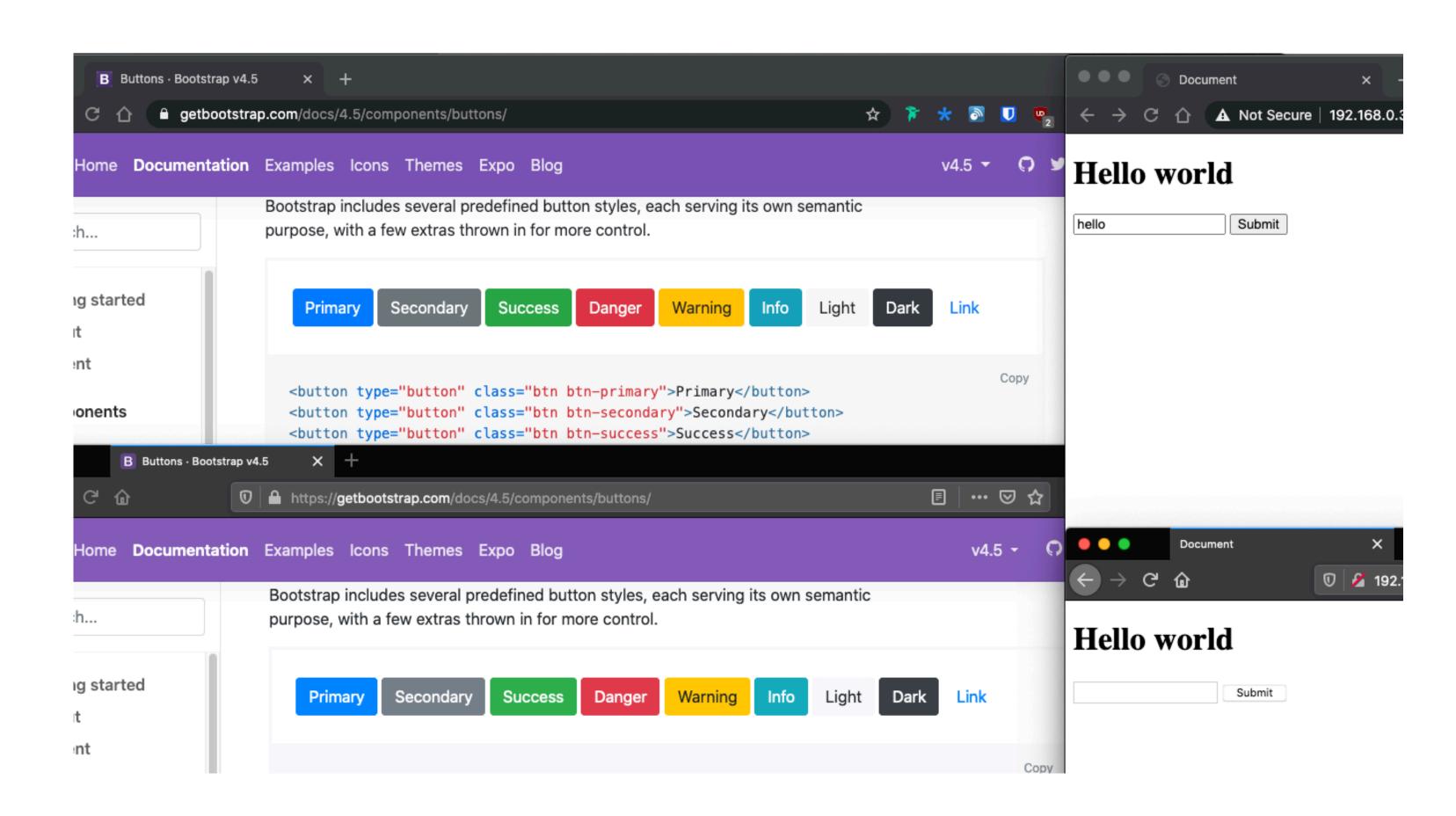


Hello world



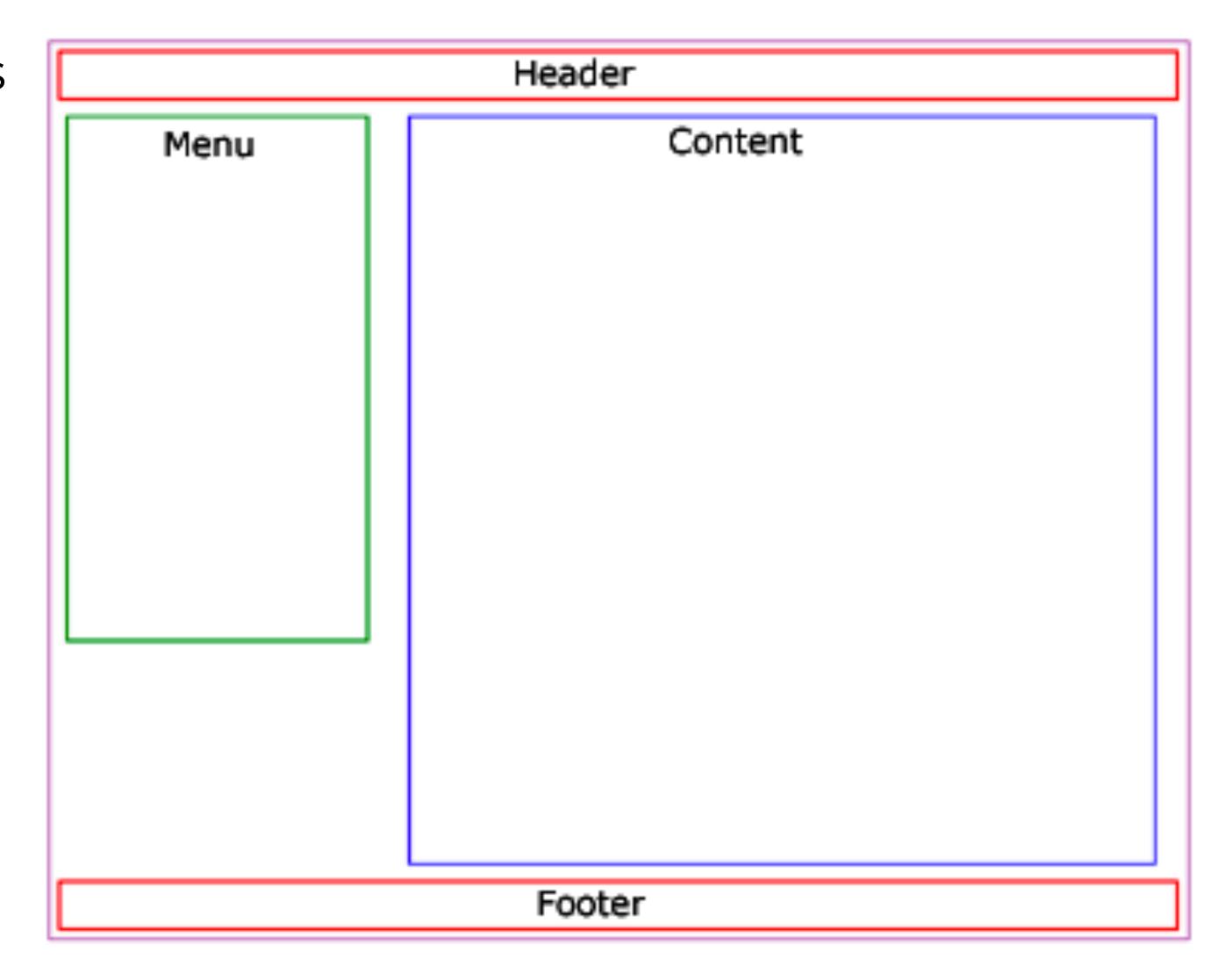
Prebuilt components

- •Make the development faster
- Consistent design across pages
- •cross browser styling for free.



Grid layout

- Common in most of the websites
- •Provides a way to divide the existing screen real estate for different components.
- •Bootstrap comes with 12 column layout.



12 column layout in bootstrap



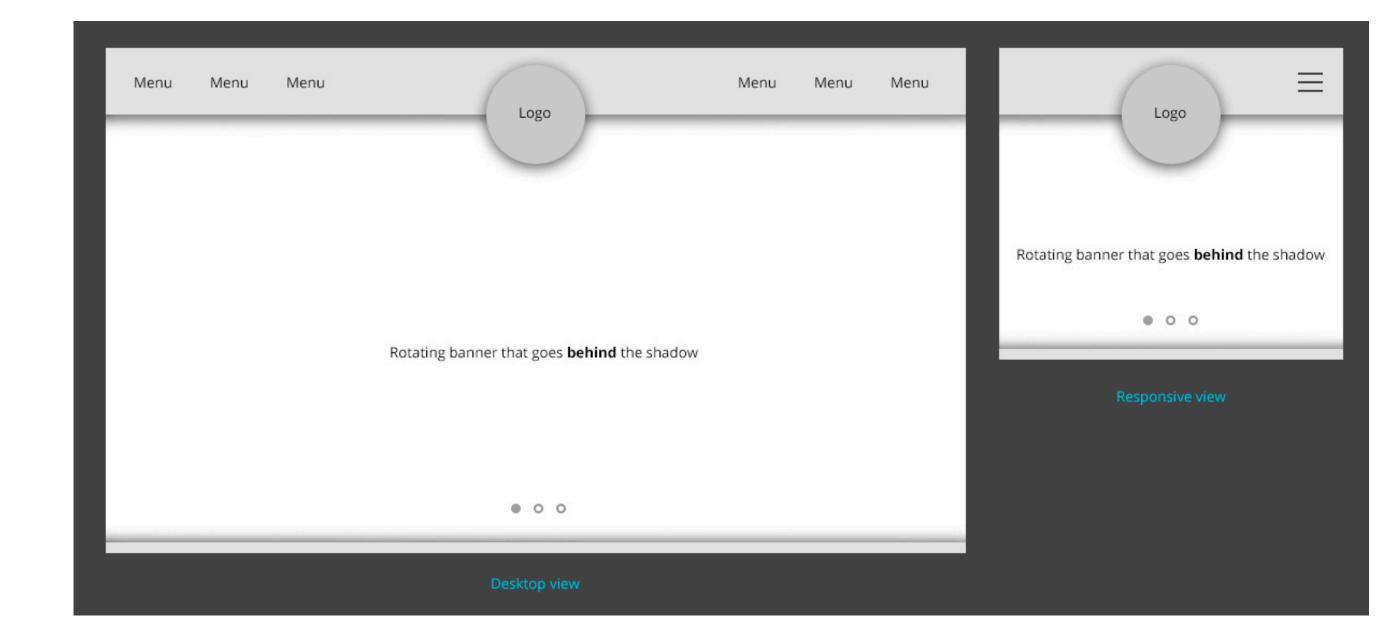
Responsive layout





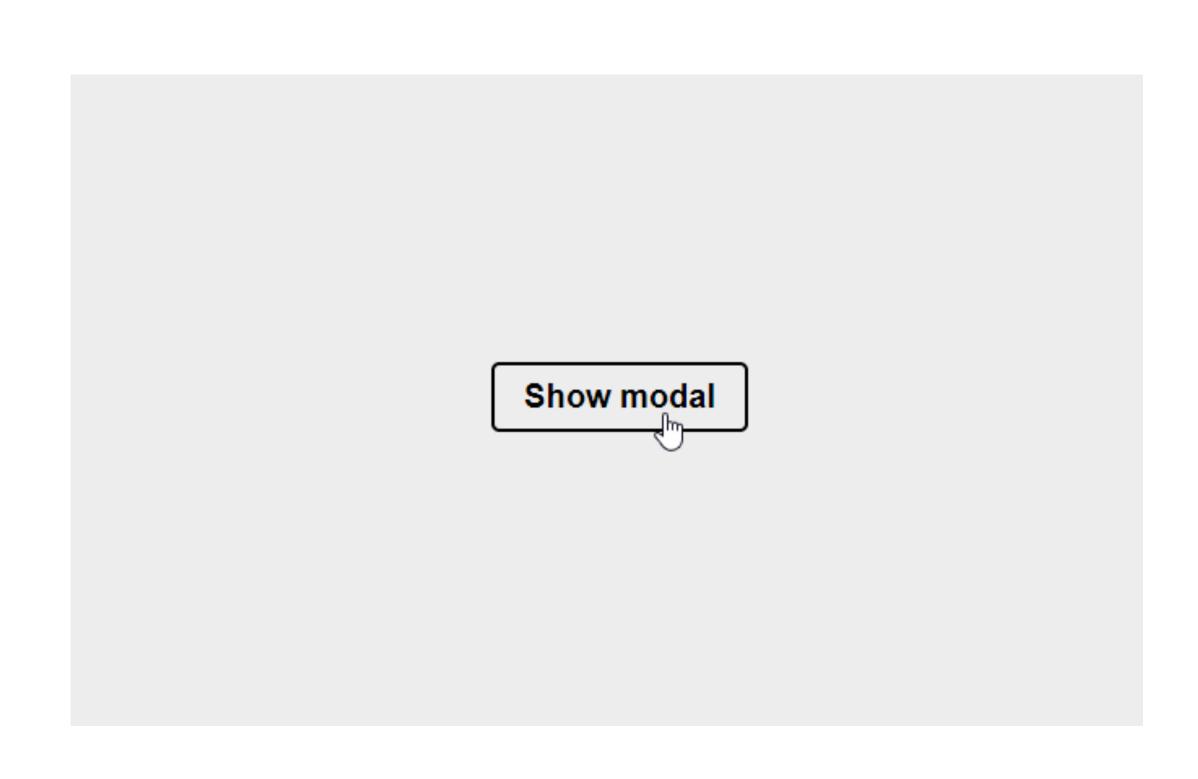


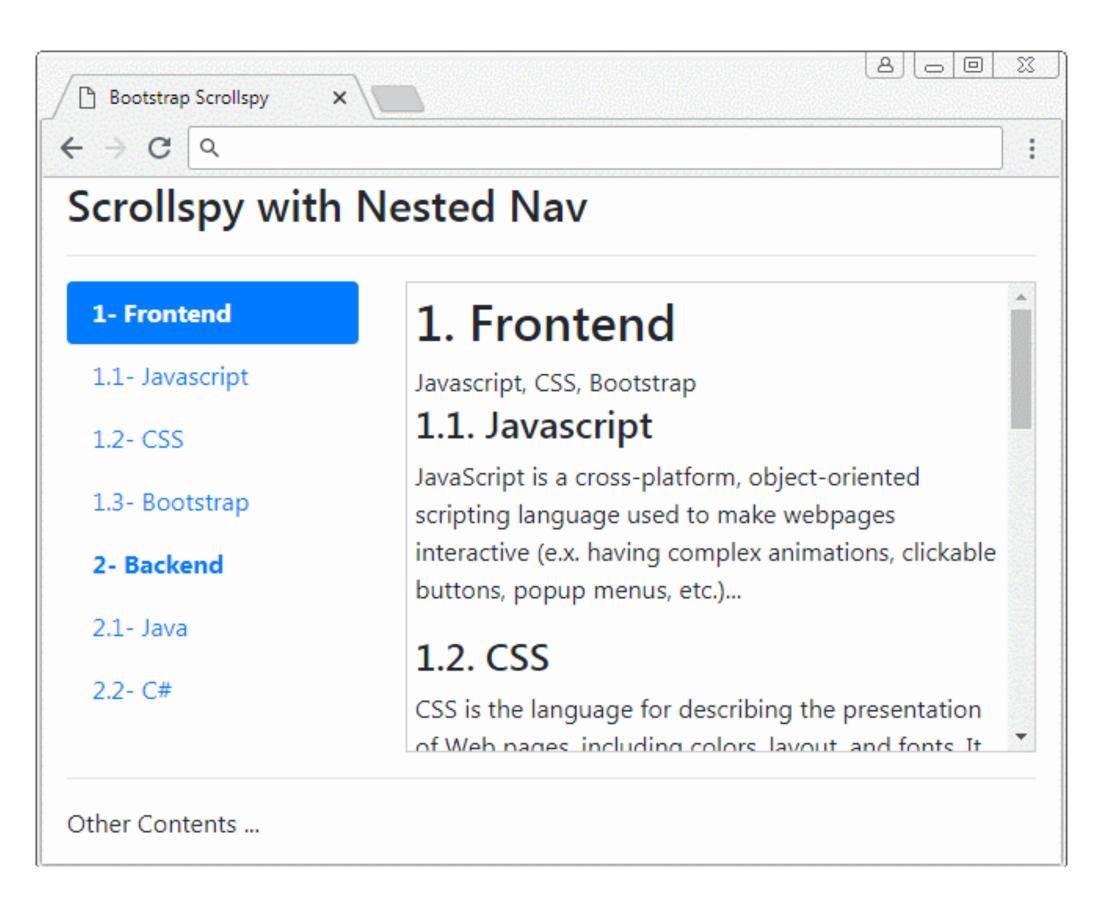




Javascript plugins

For rich interaction





How to integrate?

Starter template

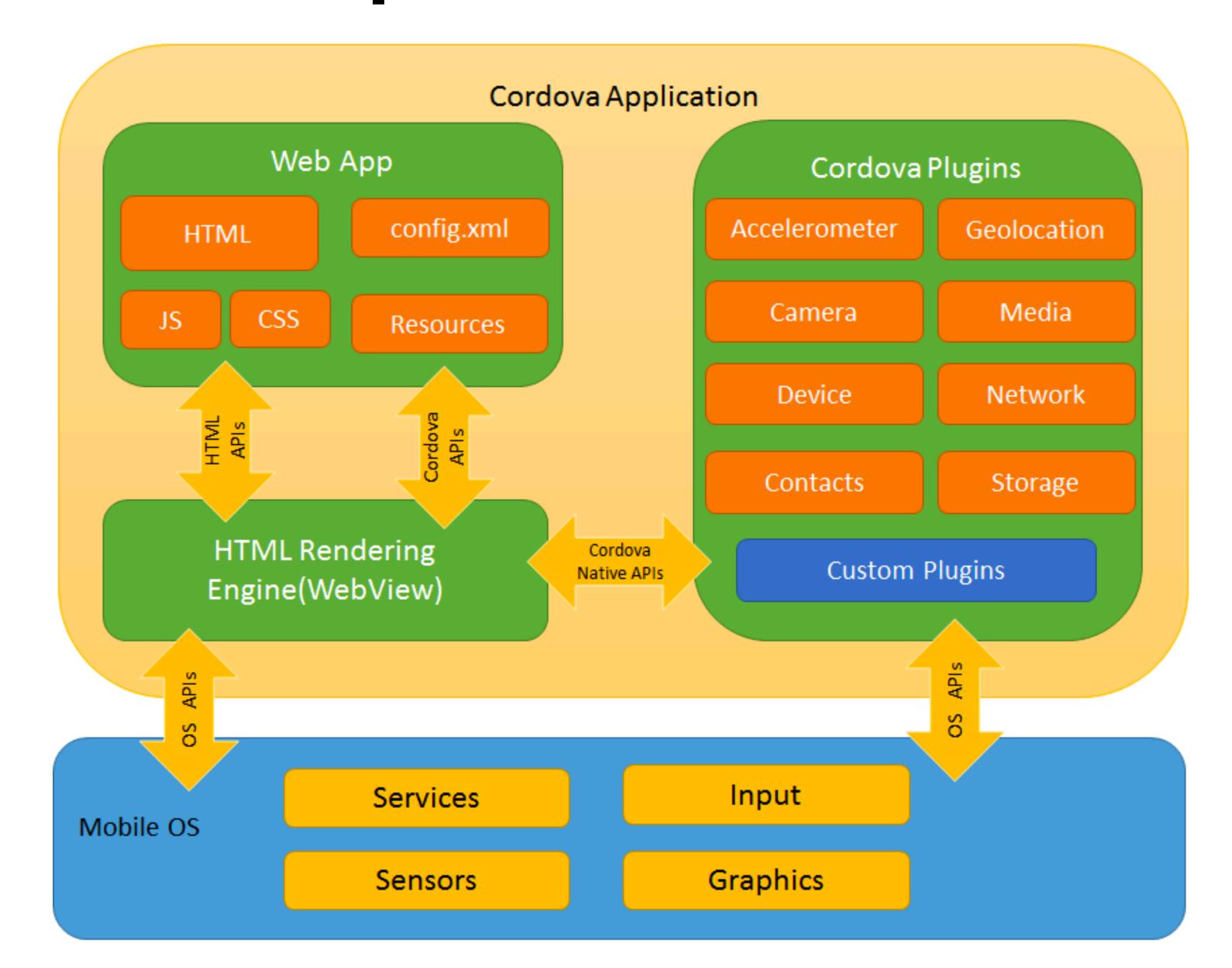
Be sure to have your pages set up with the latest design and development standards. That means using an HTML5 doctype and including a viewport meta tag for proper responsive behaviors. Put it all together and your pages should look like this:

```
Copy
<!doctype html>
<html lang="en">
  <head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
    <!-- Bootstrap CSS -->
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css" integrity="sha384-9aIt2nRpC12Uk9gS9baDl411NQApFmC26EwA0H8WgZl5MYYxFfc+NcPb1dKGj7S</pre>
    <title>Hello, world!</title>
  </head>
  <body>
    <h1>Hello, world!</h1>
    <!-- Optional JavaScript -->
    <!-- jQuery first, then Popper.js, then Bootstrap JS -->
    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js" integrity="sha384-DfXdz2htPH0lsSSs5nCTpuj/zy4C+0GpamoFVy38MVBnE+IbbVYUew+0rCXaRkfj" crossorigin="anonymous"></script>
    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js" integrity="sha384-Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9I0Yy5n3zV9zzTtmI3UksdQRVvoxMfooAo" crossorigin="anon"</pre>
    <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/js/bootstrap.min.js" integrity="sha384-0gVRvuATP1z7JjHLku0U7Xw704+h835Lr+6QL9UvYjZE3Ipu6Tp75j7Bh/kR0JKI" crossorigin="an-</pre>
  </body>
</html>
```

Demo, let's see some examples...

Bootstrap, for mobile app development?

Apache cordova



Questions?

References

```
o https://getbootstrap.com/
o https://getbootstrap.com/docs/4.5/examples/
o https://www.hsrtech.com/css/why-reboot-is-created-for-boortstap-4-instead-of-using-normalize/
o https://www.w3schools.com/css/css_rwd_viewport.asp
o https://github.com/toert/Isolated-Bootstrap
o https://bootstrap-demo.netlify.app/
o https://cordova.apache.org/
o https://phonegap.com/
```

Thank you