Introduction to Ionic Framework fundamentals

Native apps
Hybrid apps

Native apps

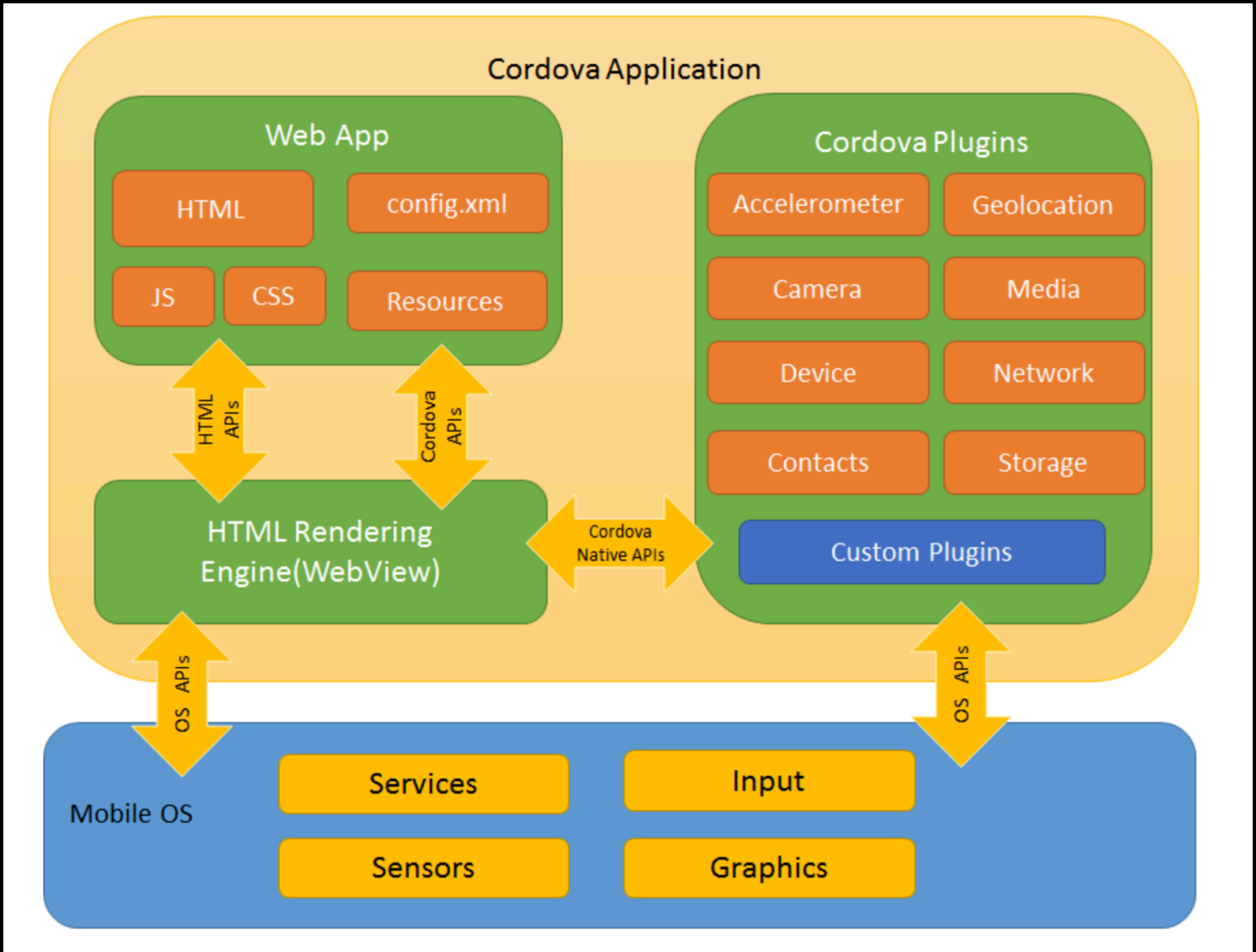
- Platform specific:
  - iOS - Objective C, Swift
  - Android - Java, Kotlin, C++
- Wide variety of uses cases
- Fluid User experiences
- Expensive to build, time consuming

Hybrid Apps

- Cross-platform:
  - Written in JavaScript using Frameworks like Ionic, React Native
  - Single code base running on different platforms
- Native capabilities using plugins
- Good enough performances
- Easier and faster to build

	Native Apps	Hybrid apps
Crossplatform	No	Yes
Pace of Development	Slow	Fast
Ease of development	A bit difficult	Easier
Native Capabilities	Yes	Yes
Performance	Pretty fast	Fast enough
Written in	iOS: Swift, Objective-C Android: Java, Kotlin	JavaScript using frameworks like Ionic, React native etc.

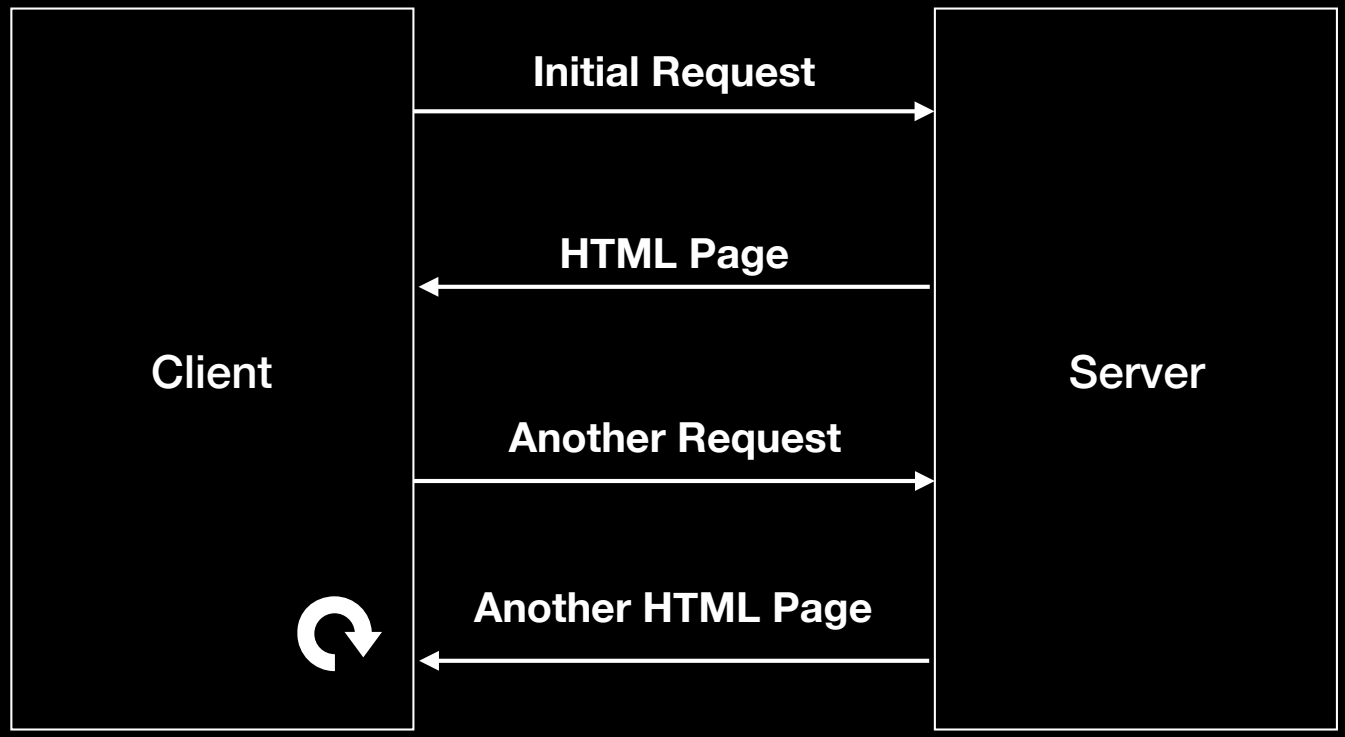
ionic



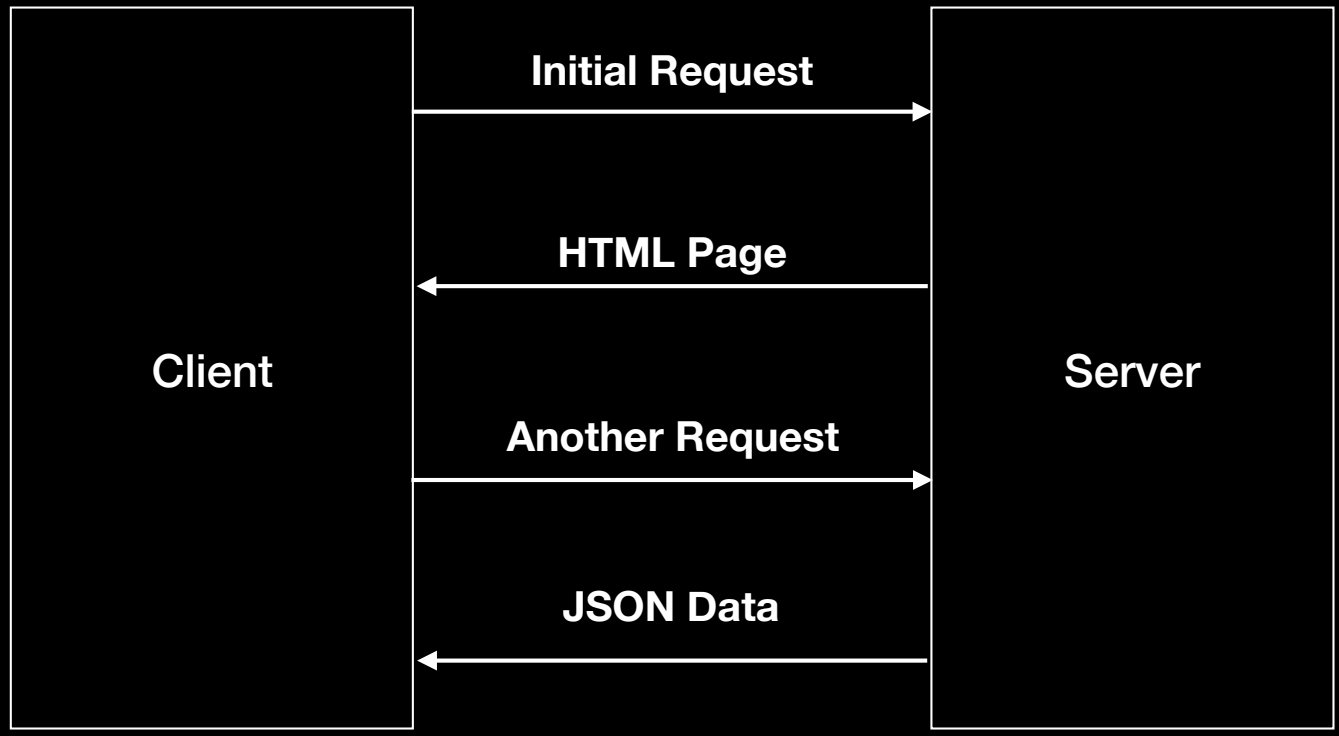
https://cordova.apache.org

Single Page Applications

Traditional Webpages



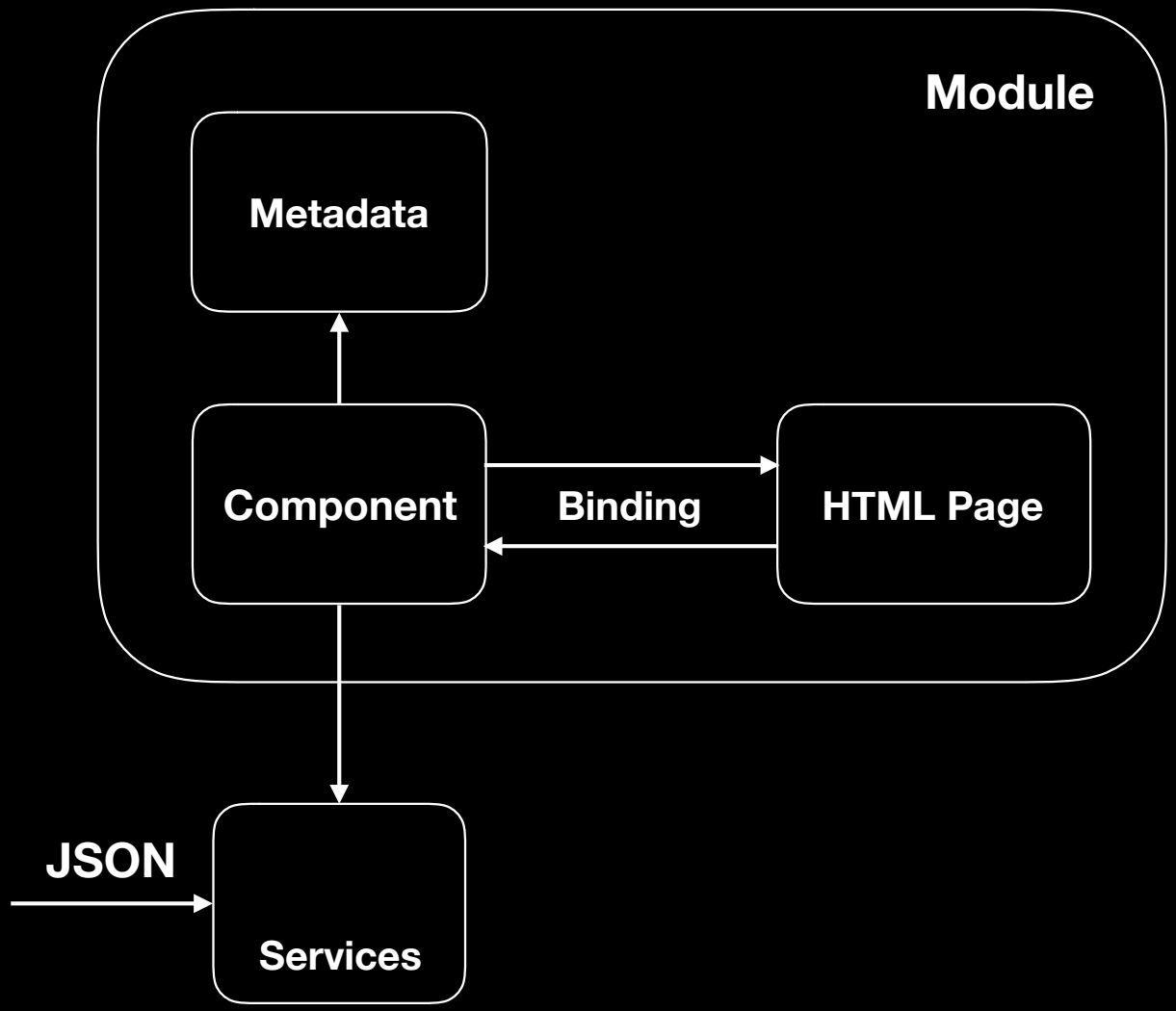
Single Page Webpages



A popular Open-Source project

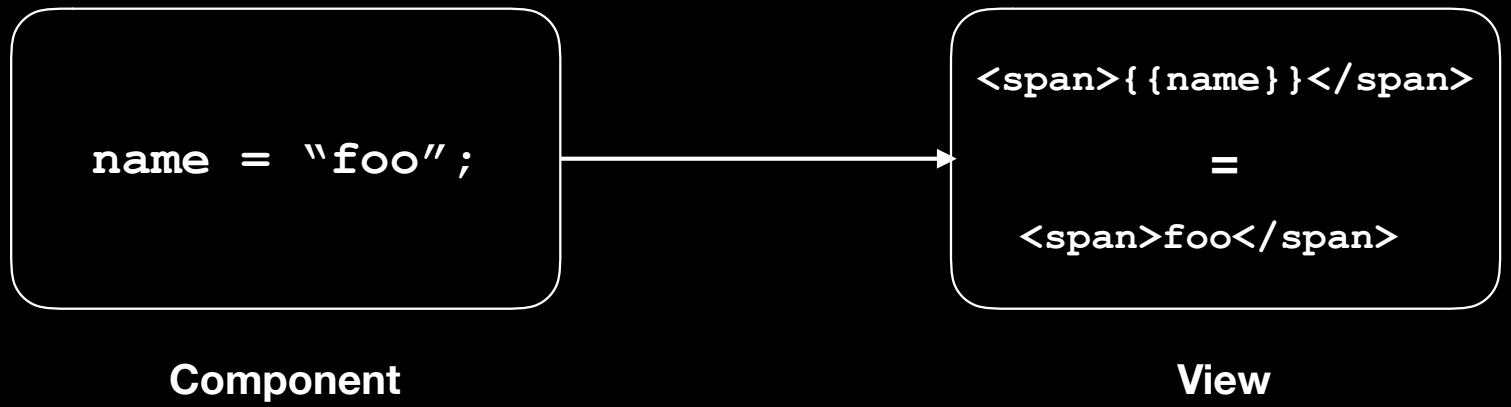
MVC architecture

Angular Architecture



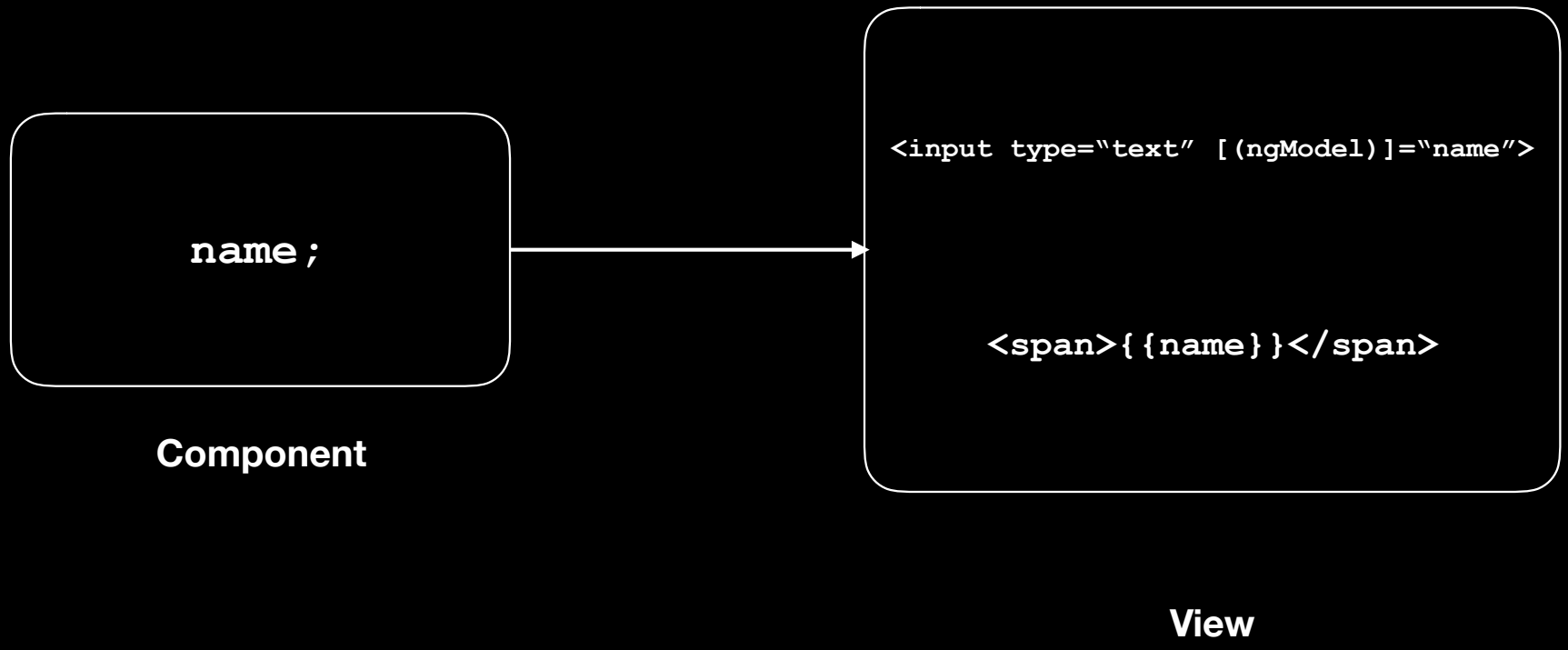
Angular Binding

- **Interpolation**

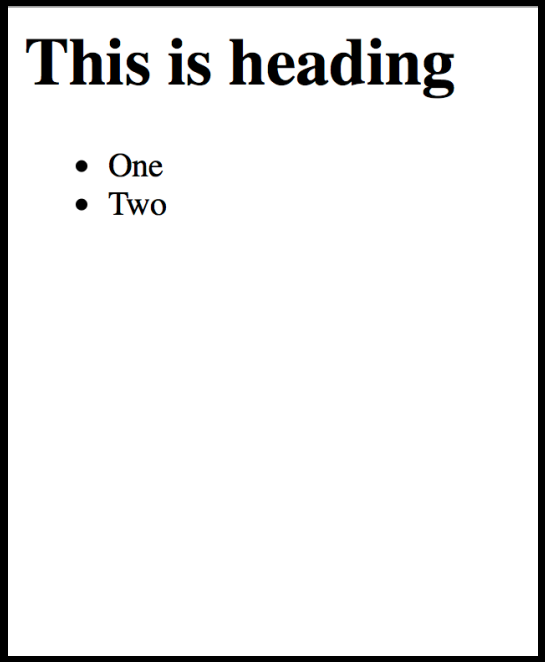


Angular Binding

- **Two way Binding**

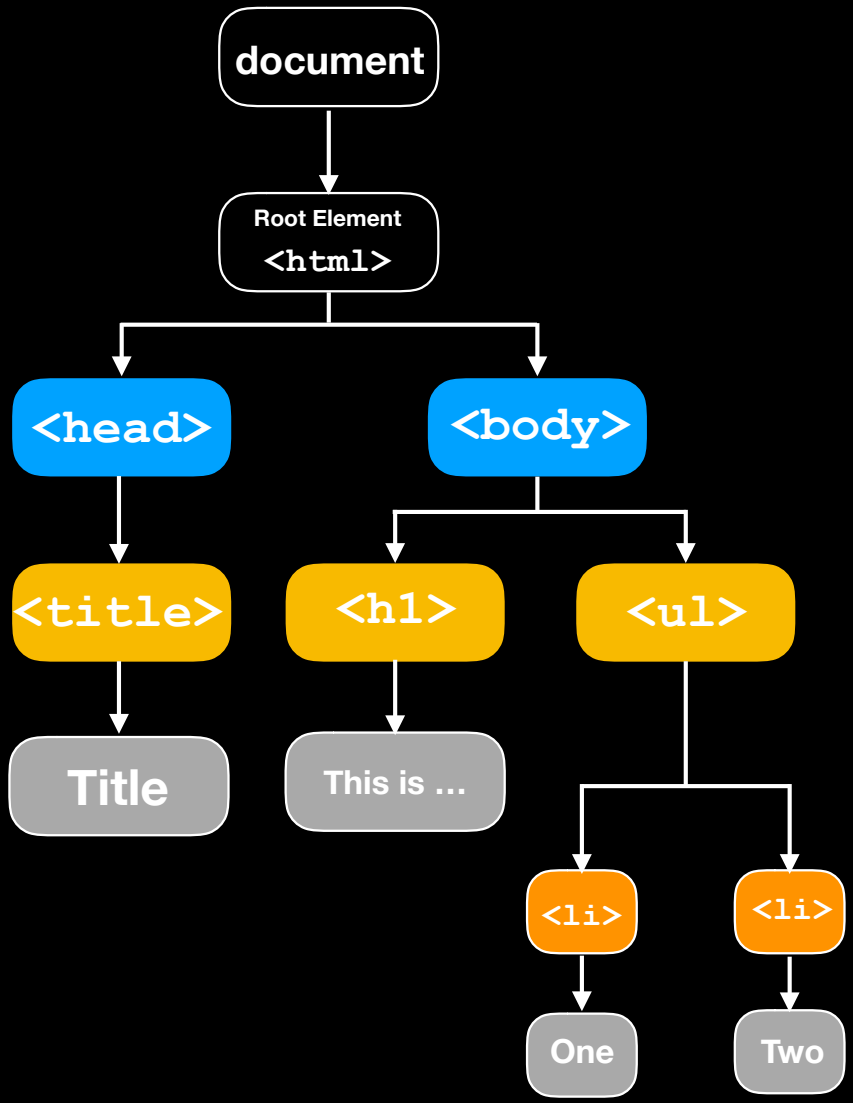


```
<html>

<head>
  <title>Title</title>
</head>

<body>
  <h1>This is heading</h1>
  <ul>
    <li>One</li>
    <li>Two</li>
  </ul>
</body>
```



DOM

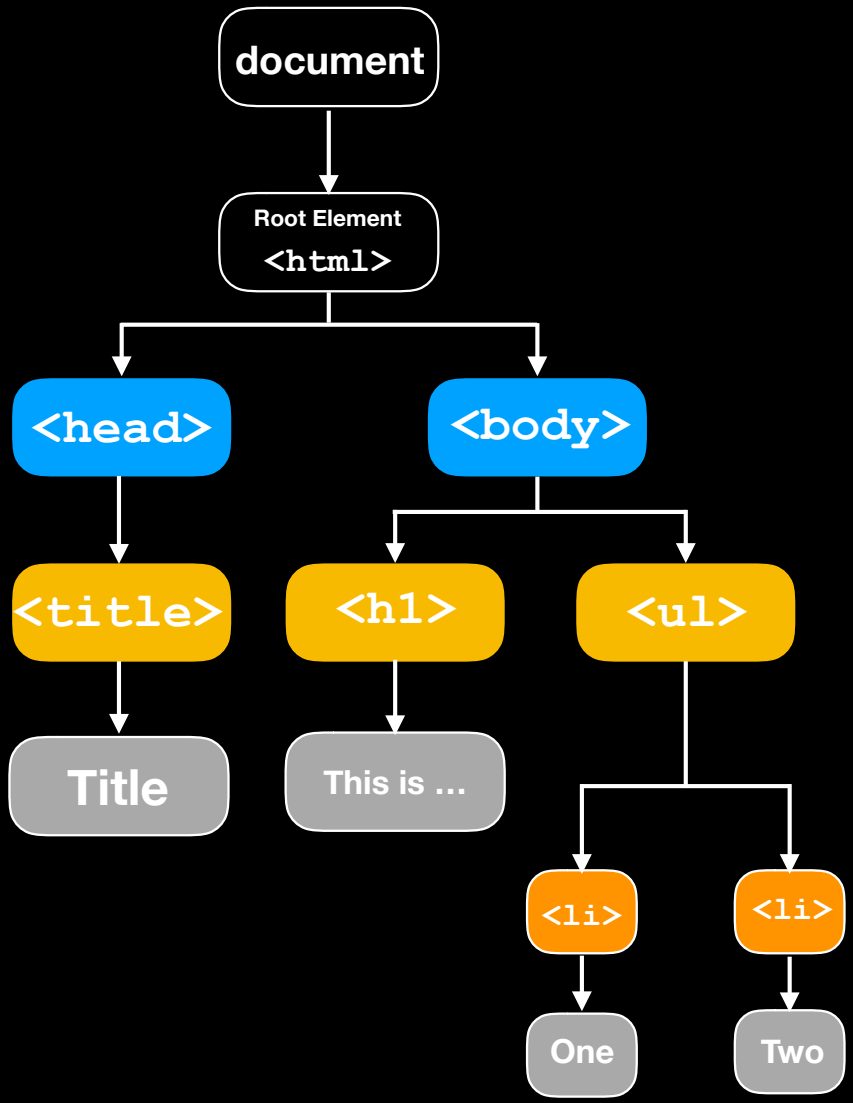
```
<html>

<head>
  <title>Title</title>
</head>

<body>
  <h1>This is heading</h1>
  <ul>
    <li>One</li>
    <li>Two</li>
  </ul>
</body>
```



*ngFor Directive

```
models = [
  {title: "One"},
  {title: "Two"}
]
```

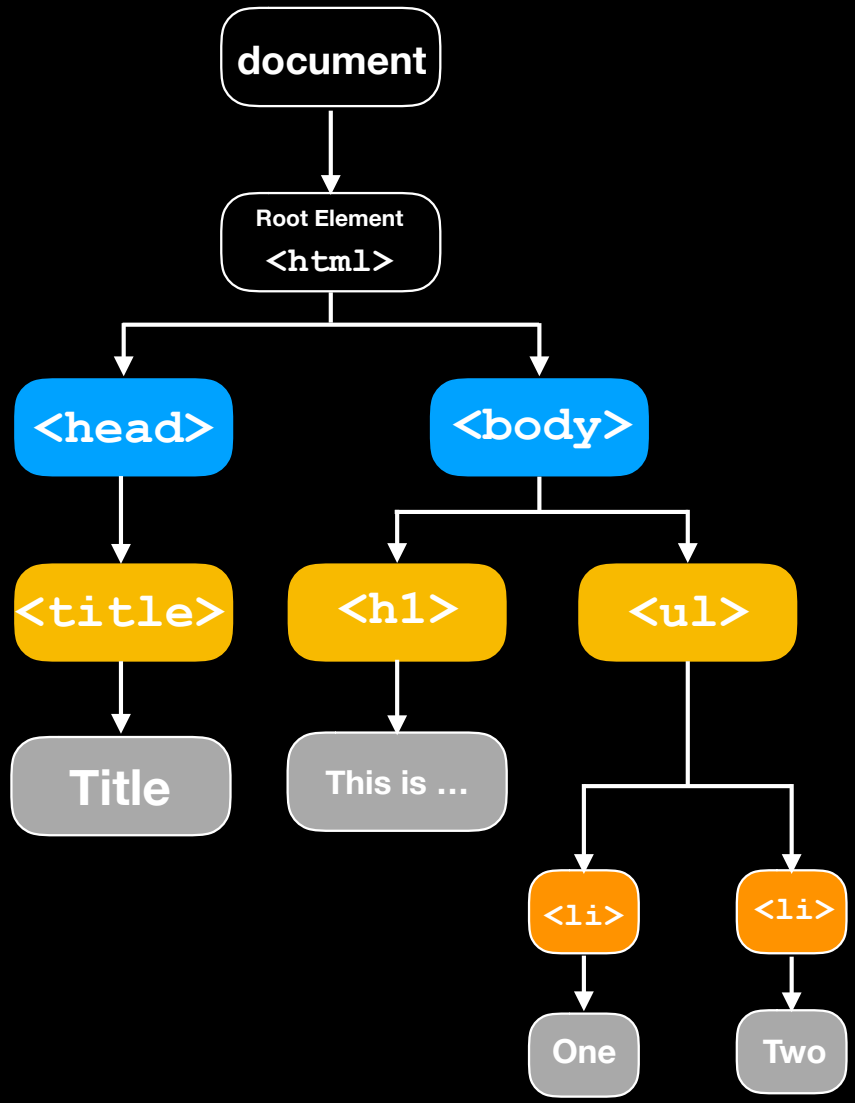
```
<html>

<head>
  <title>Title</title>
</head>

<body>
  <h1>This is heading</h1>
  <ul>
    <li *ngFor = "let model of models">
      {{model.title}}
    </li>
  </ul>
</body>
```



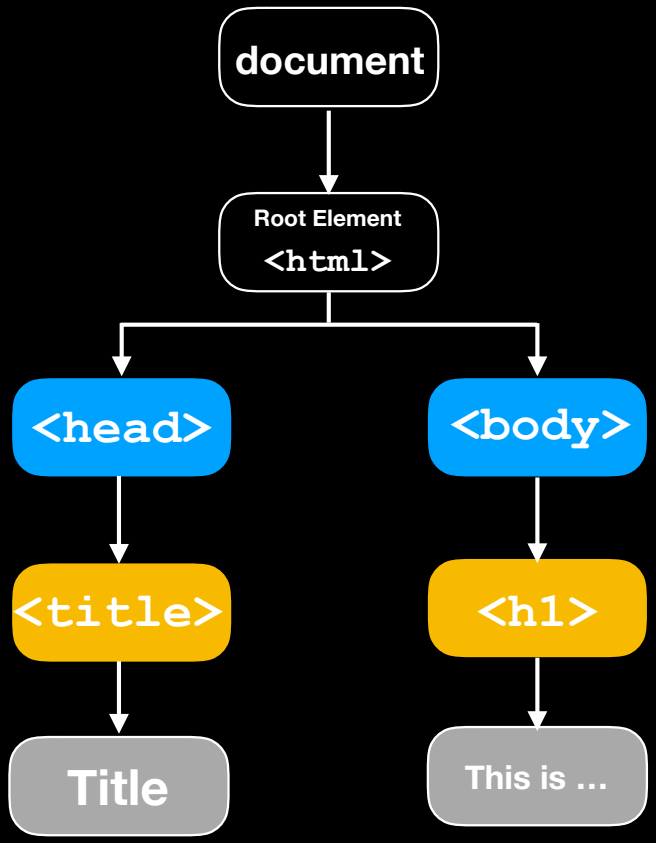
*ngIf Directive - True Condition

```
models = [
  {title: "One"},
  {title: "Two"}
];

showList = true;
```

```
<html>

<head>
  <title>Title</title>
</head>

<body>
  <h1>This is heading</h1>
  <ul *ngIf = "showList">
    <li *ngFor = "let model of models">
      {{model.title}}
    </li>
  </ul>
</body>
```



*ngIf Directive - False condition

```
models = [
  {title: "One"},
  {title: "Two"}
];

showList = false;
```

```
<html>

<head>
  <title>Title</title>
</head>

<body>
  <h1>This is heading</h1>
  <ul *ngIf = "showList">
    <li *ngFor = "let model of models">
      {{model.title}}
    </li>
  </ul>
</body>
```