

Bundling with WebPack



Tooling up

- TypeScript
- WebPack
- React

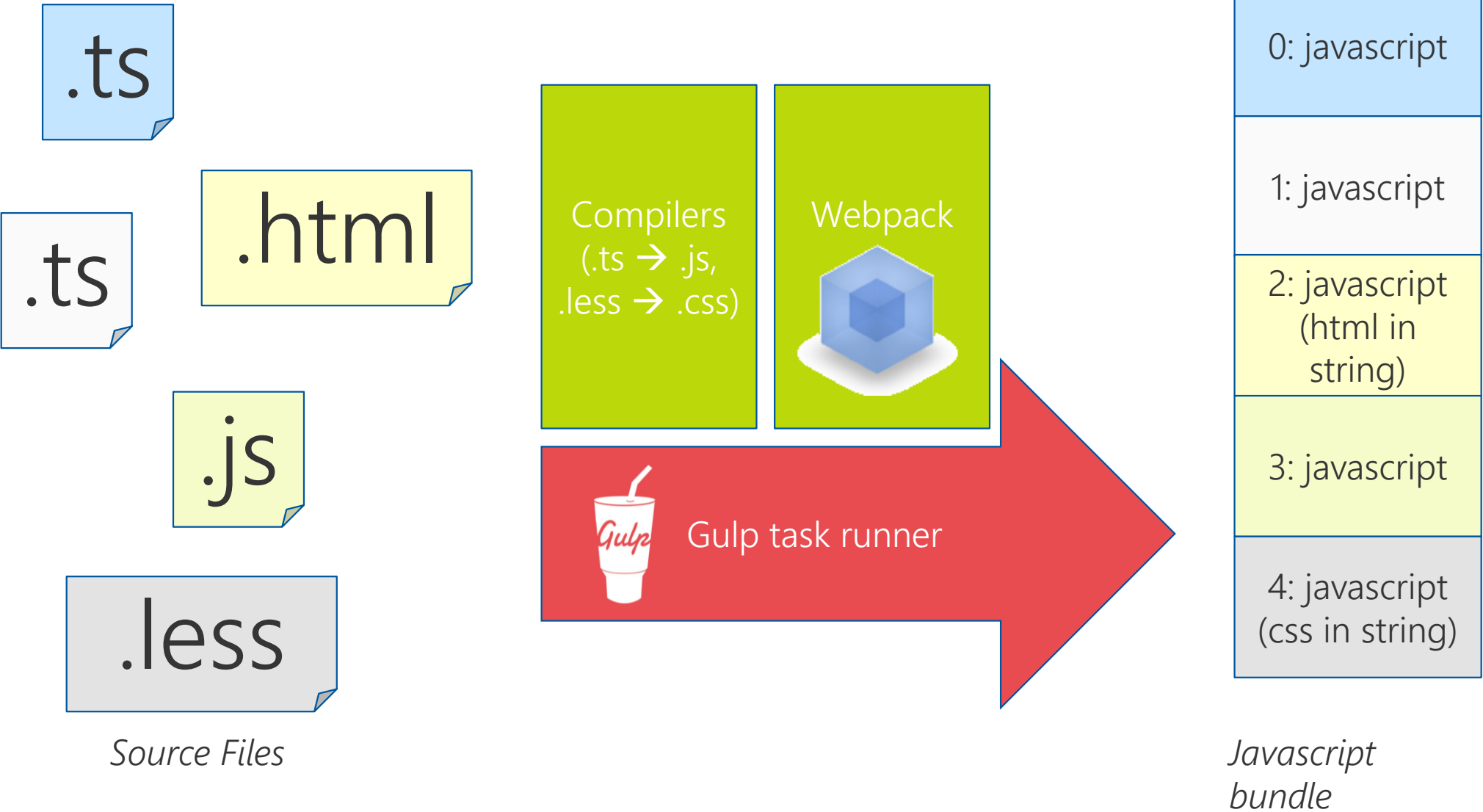


Getting Started

- First SPFx Project
- Accessing SharePoint and Graph APIs
- Provisioning
- Web part Editing
- Extensions



Splitting and Bundling



Splitting and Bundling

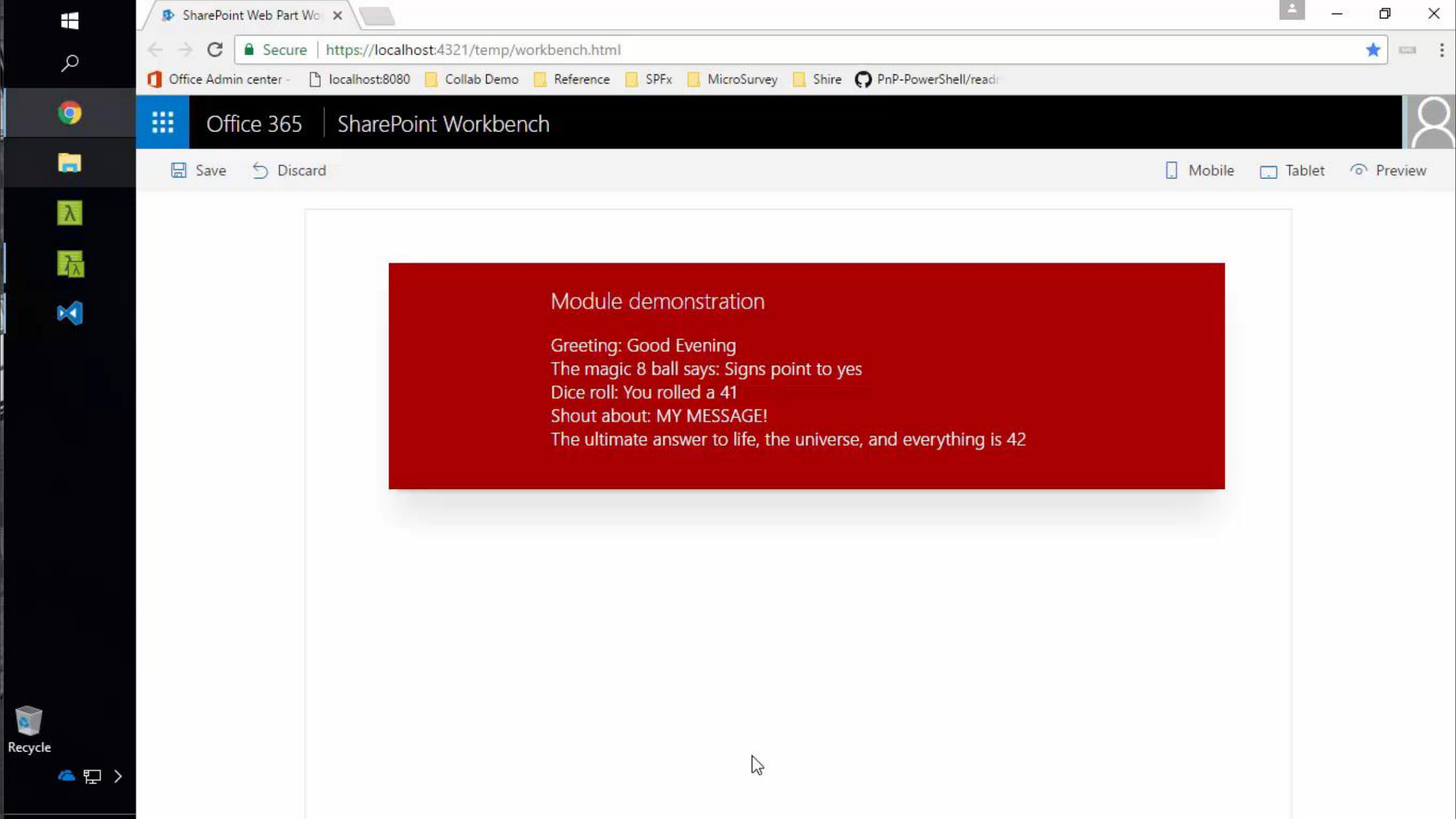
- Freely split your code into multiple files
- Each is translated to JavaScript and isolated in a module
 - TypeScript is compiled to JavaScript
 - scss/sass is compiled to CSS in a JavaScript string
 - HTML becomes a JavaScript string
 - JavaScript is just placed in the module
- Advantages
 - Ease of development / modularity
 - Efficient download and caching
 - Synchronous access (never wait for a script to load!)

JavaScript	TypeScript
exports	export
require	import

Writing and Using Modules

HTML Templates
JavaScript
TypeScript

<https://link.bobg.tv/WebPack>



Module demonstration

Greeting: Good Evening

The magic 8 ball says: Signs point to yes

Dice roll: You rolled a 41

Shout about: MY MESSAGE!

The ultimate answer to life, the universe, and everything is 42

Writing and Using Modules

Code Walk-through

<https://link.bobg.tv/WebPack>

SASS/SCSS

- Compiled CSS – 2 formats (SPFx uses SCSS)
- Plain old CSS works fine
- Added features:
 - Variables
 - Operators (+, -, *, /, %)
 - Nesting
 - Partials (start filename w/_; bring in with @import directive)
 - Mixins (reusable sets of selectors)
 - Extend / Inheritance (reusable sets of styles)

CSS Modules

Web Part 1

```
<h1 class="title">  
  This is Web Part 1  
</h1>
```

```
.title {  
  color: red;  
}
```

WebPart1.scss

Web Part 2

```
<h1 class="title">  
  This is Web Part 2  
</h1>
```

```
.title {  
  color: green;  
}
```

WebPart2.scss

- What color is the title of web part 1?
- What color is the title of web part 2?

A: Unknown

A: Unknown

CSS Modules

Web Part 1

```
<h1 class="title_e10">  
  This is Web Part 1  
</h1>
```

```
.title_e10 {  
  color: red;  
}
```

WebPart1.module.scss

Web Part 2

```
<h1 class="title_4af">  
  This is Web Part 2  
</h1>
```

```
.title_4af {  
  color: green;  
}
```

WebPart2.module.scss

- What color is the title of web part 1?
- What color is the title of web part 2?

A: Red

A: Green

CSS Modules

Code Walk-through

<https://link.bobg.tv/WebPack>

Resources

Bob's WebPack Module sample

- <https://bit.ly/WebPack>

Webpack

- <http://bit.ly/WebPackOrg>

Import vs. Require and Why

- <http://bit.ly/ImportVsRequire>

CSS Modules

- <http://bit.ly/CSSModules>

SCSS

- <http://bit.ly/ScssGuide>

