

First Things First



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Module Overview



Selecting a Language


Selecting an Editor

Setting up an Angular 2 Application

About Modules



JavaScript Language Specification

A yellow square containing the letters 'JS' in a large, bold, black sans-serif font.

ECMAScript (ES)

ES 3

ES 5

ES 2015 (formerly known as ES 6)

- Must be transpiled



Selecting a Language

ES 5

- Runs in the browser
- No compile required

ES 2015

- Lots of new features (classes, let, arrow, etc.)

TypeScript

- Superset of JavaScript
- Strong typing
- Great IDE tooling

Dart

- No JavaScript



What Is TypeScript?



Open source language

Superset of JavaScript

Transpiles to plain JavaScript

Strongly typed

- TypeScript type definition files (*.d.ts)

Class-based object-orientation



Learning More



TypeScript Playground

<http://www.typescriptlang.org/Playground/>

Pluralsight Courses

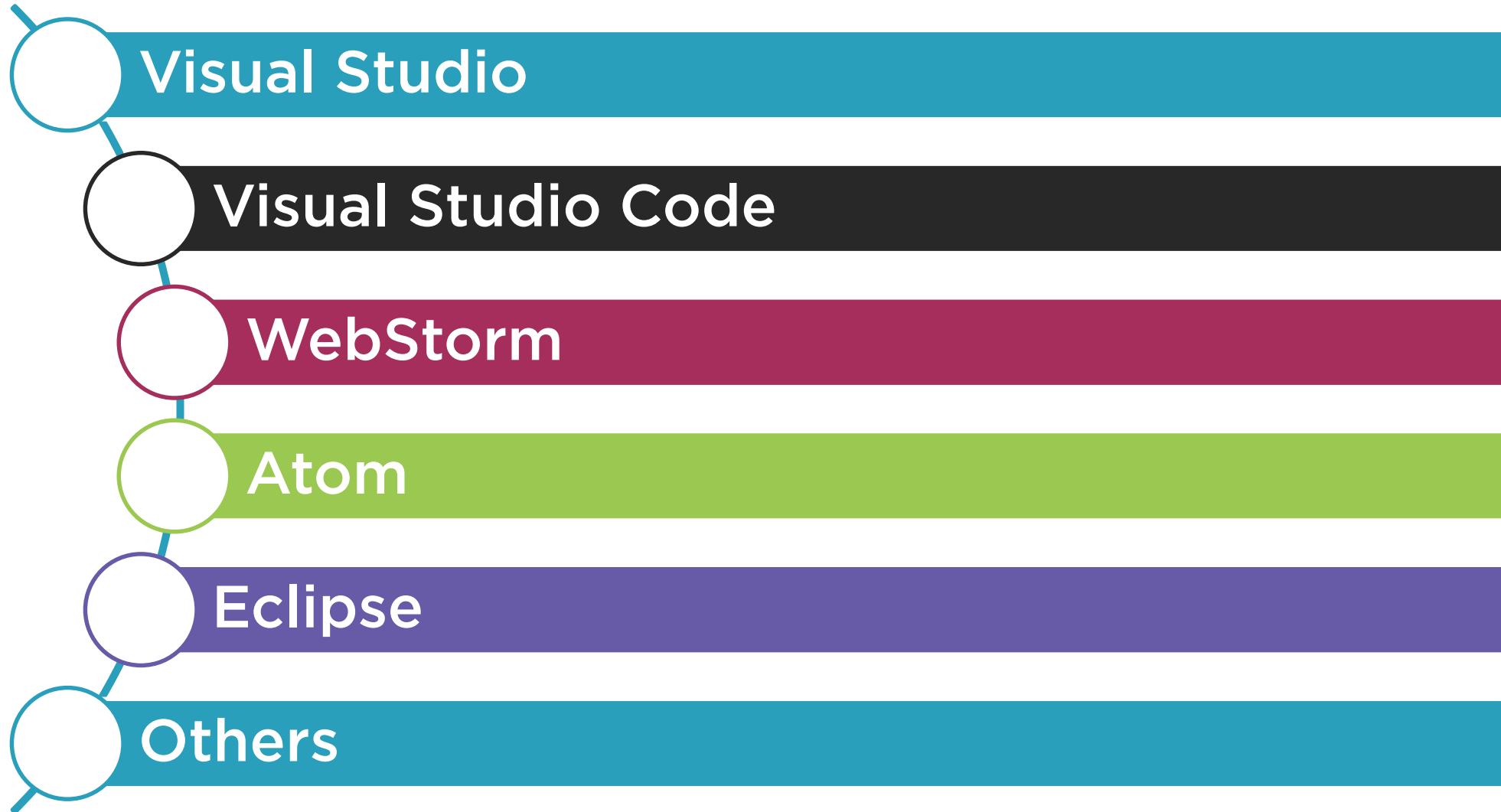
"TypeScript Fundamentals"

"Angular with TypeScript"

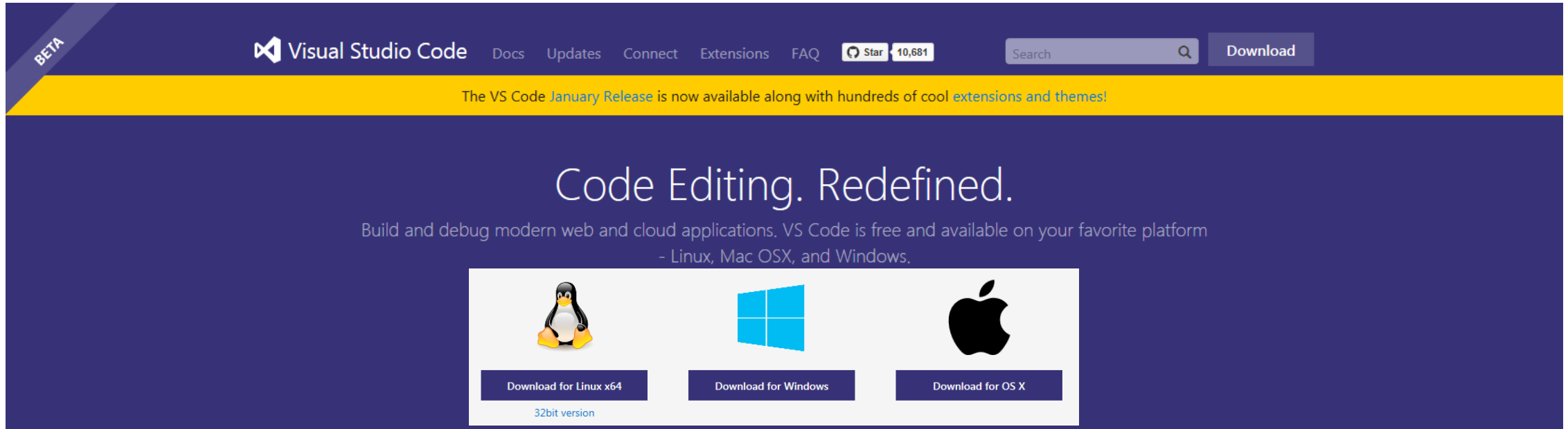
"Using ES6 with TypeScript"



TypeScript Editors



Visual Studio Code



<https://code.visualstudio.com/>



Learning More



Visual Studio Code Site

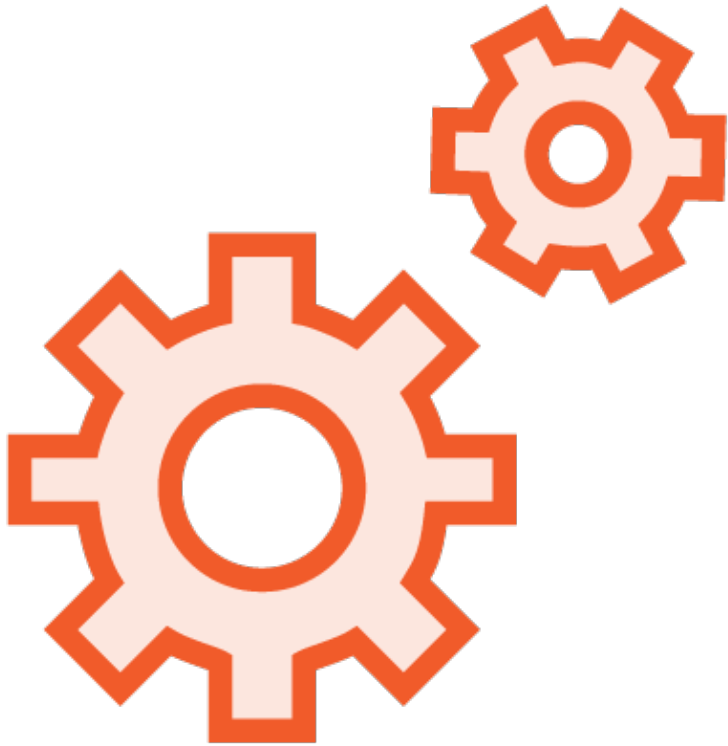
<https://code.visualstudio.com/>

Pluralsight Course

"Visual Studio Code"



Setting up Our Environment



npm

Set up the Angular 2 application



npm



Node Package Manager

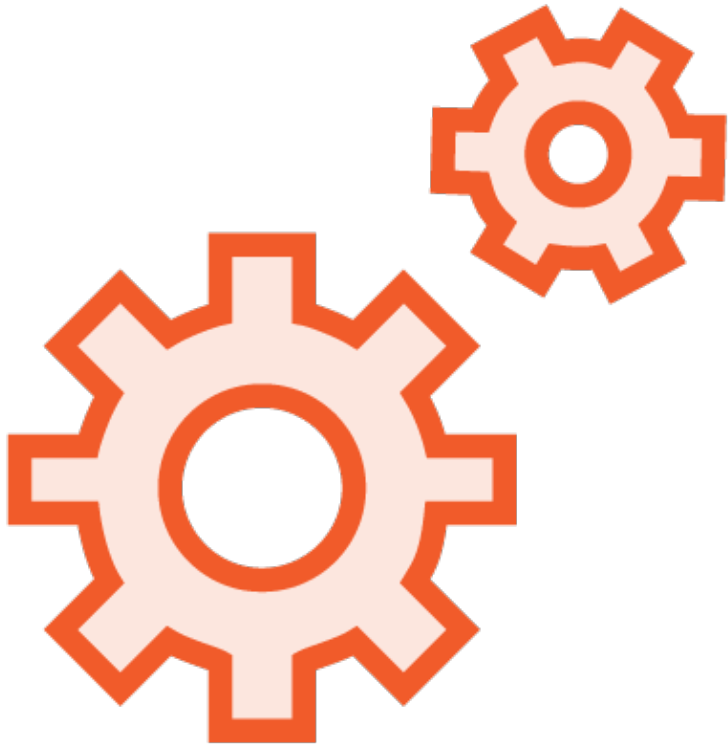
Command line utility

Installs libraries, packages, and applications

<https://www.npmjs.com/>



Setting up an Angular 2 Application



1. **Create an application folder**
2. **Create the tsconfig.json file**
3. **Create the package.json file**
4. **Create the typings.json file**
5. **Install the libraries and typings**
6. **Create the host Web page (index.html)**
7. **Create the main.ts file (bootstrapper)**

Setting up an Angular 2 Application



Manually perform each step

www.angular.io Quick Start

Download the results of these steps

www.angular.io Quick Start

AngularCli

<https://github.com/angular/angular-cli>

Starter files

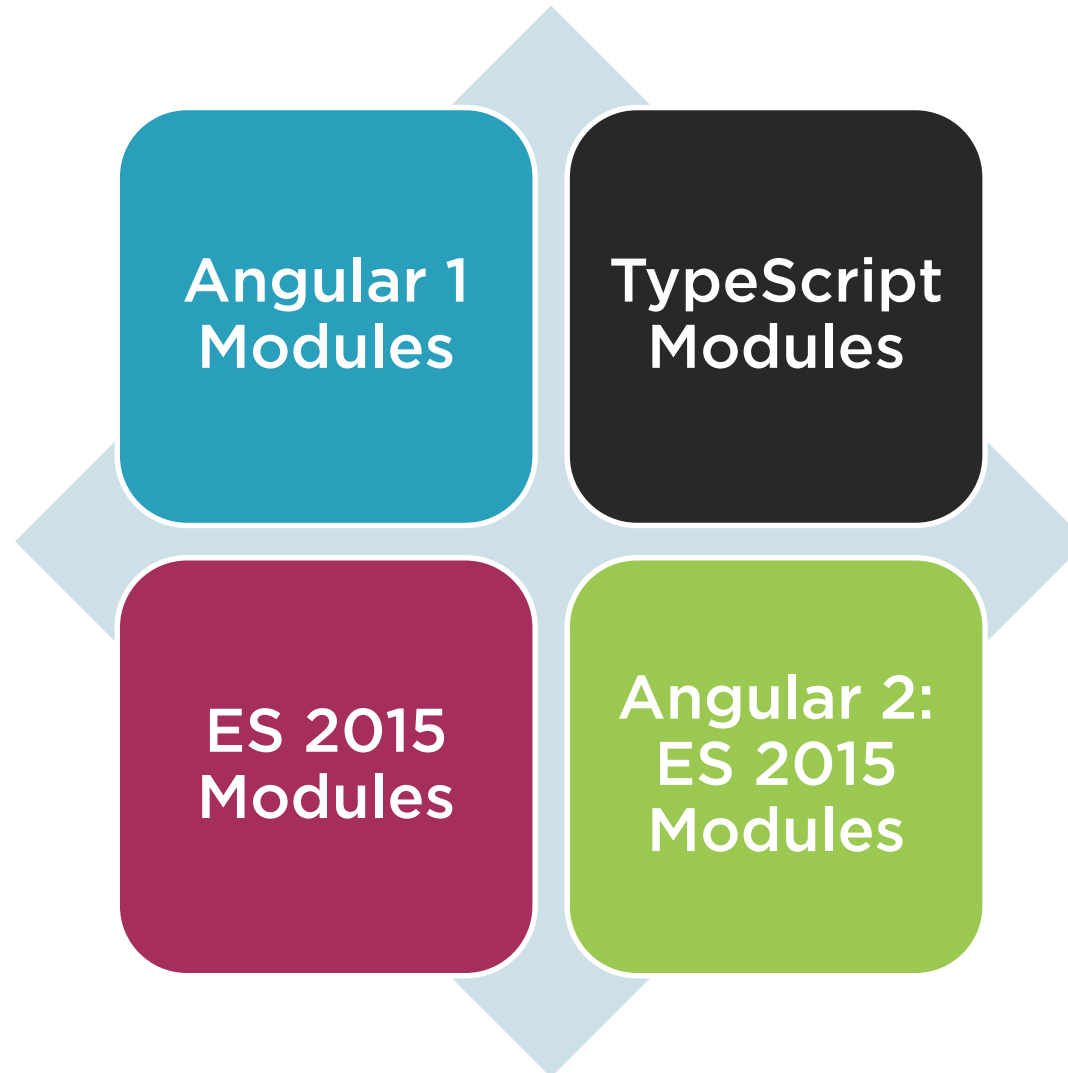
<https://github.com/DeborahK/Angular2-GettingStarted>



Namespaces

Modules

Code Organization



ES 2015 Modules

Export

product.ts

```
export class Product{  
}
```

product.js

```
function Product() {  
}
```



Transpile

Import

product-list.ts

```
import { Product } from  
'./product'
```





Web Browser

Web
Server

URL Request (www.mysite.com)

Response

index.html

JavaScript



Summary



Selecting a Language

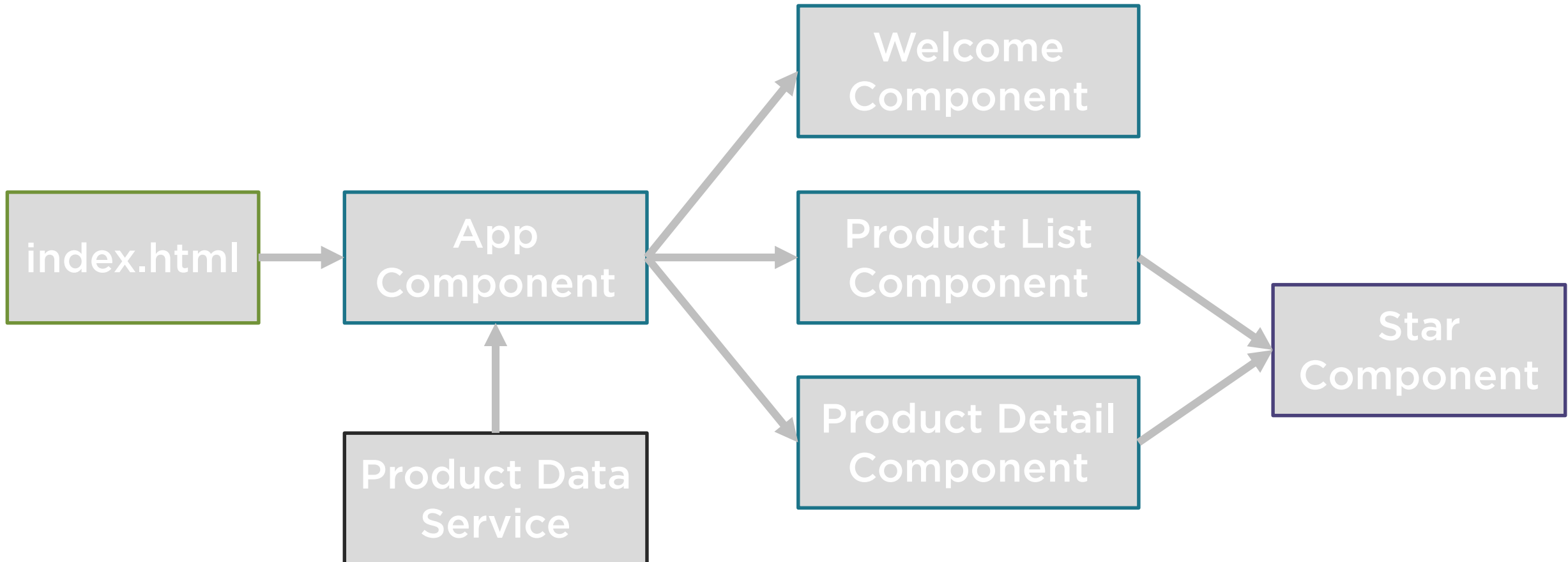
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Application Architecture



Application Architecture

