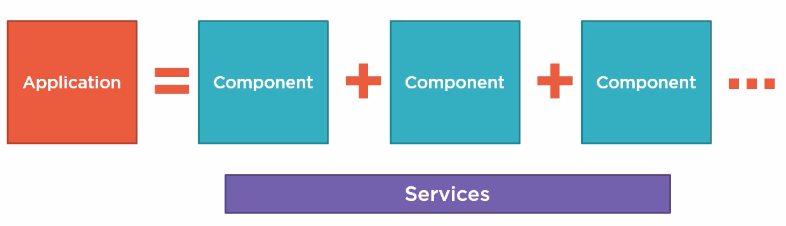
Angular:

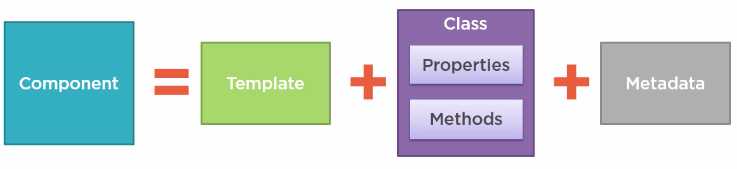
* Data Binding
* Expressive HTML
* Modular
* Built in Service Integration
* Faster rendering time

An angular application consists of components and services.



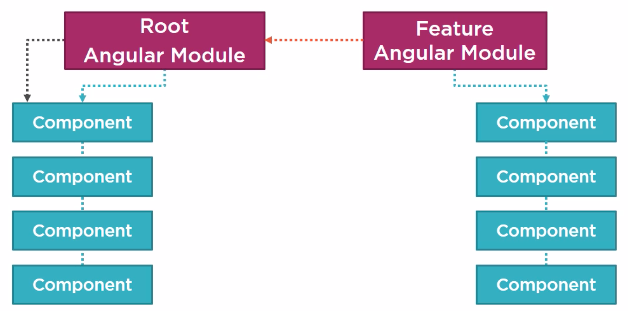
A component has the following parts:

* Template - HTML code or view
* Class – Associated code to support data elements in HTML template also known as properties and methods which respond to button clicks etc.
* Metadata

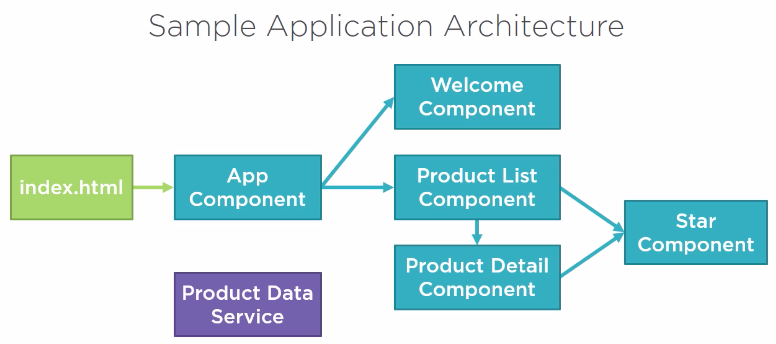


Angular apps are modularized. Each app must have at least one module known as root module.

It can also have feature modules.



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



Language: **Typescript**

* Strongly typed (data type present for variables)
* Trans piled to JavaScript.
* Object oriented features

**Set up Angular**

Node Package Manager – Command Line Utility

<https://nodejs.org/en/download/>

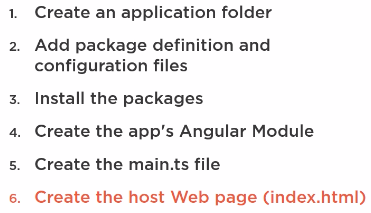
This package has installed:

Node.js v10.15.1 to /usr/local/bin/node

npm v6.4.1 to /usr/local/bin/npm

Make sure that /usr/local/bin is in your $PATH.

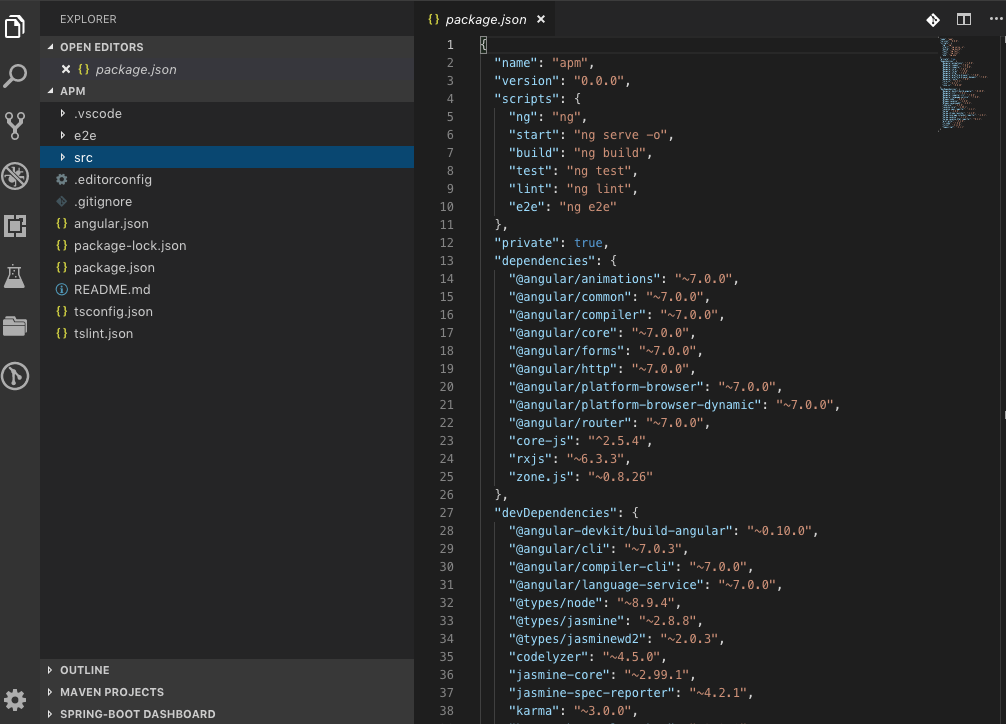
**Steps to setup an angular application:**



Use angular CLI to generate setup and boiler plate code.

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

**An angular Project Sample:**



The code is present under src/

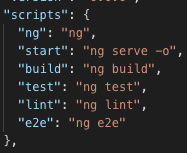
All required libraries are defined in package.json

Navigate to the folder which contains package.json in terminal.

* npm -v to check angular version.
* npm install to install dependencies defined in package.json.

A node\_modules folder is created where all libraries are stored.

**Start Angular App:**



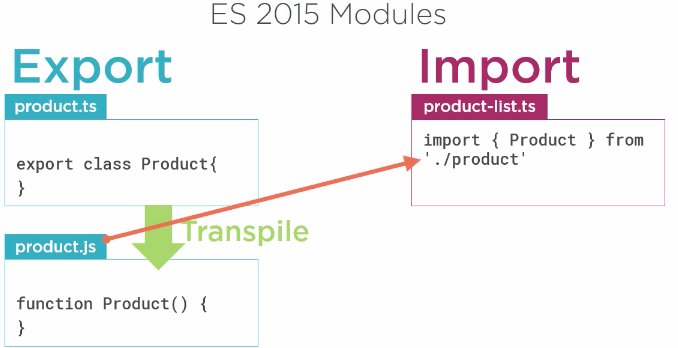
Package.json scripts section has all the start scripts configured.

npm start = ng serve -o (ng = angular, serve = start app, -o = open in default browser)

so npm start can be used to start up our app in default browser.

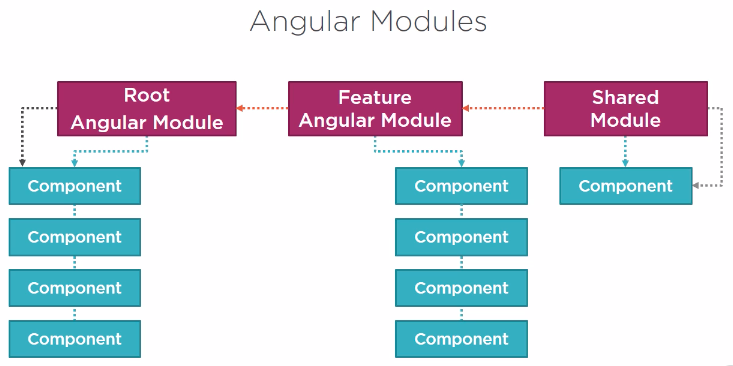
**Modules**

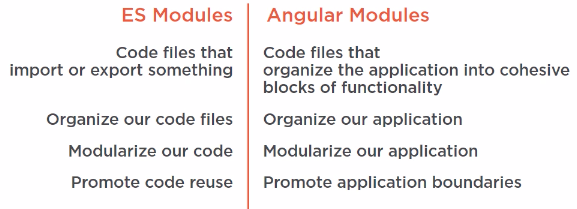
ES Modules:



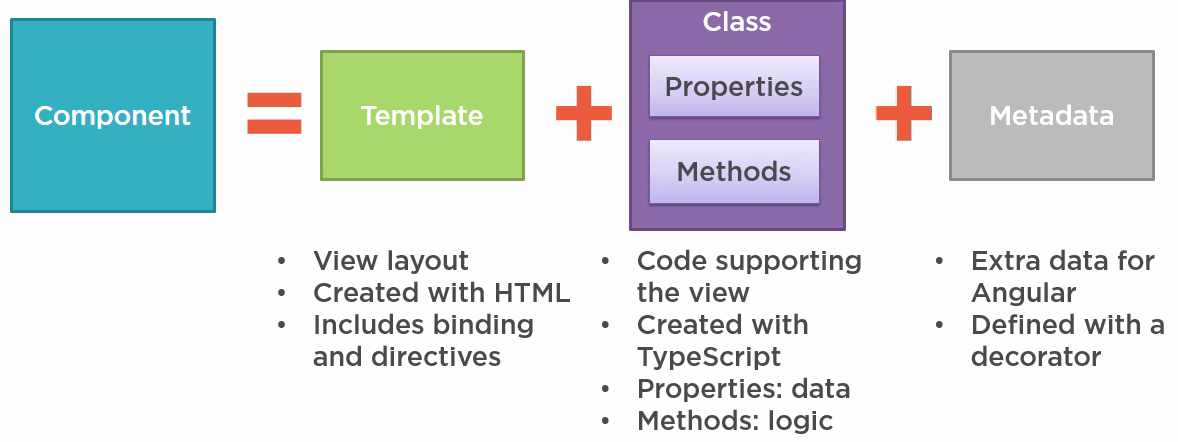
The class Product is exported from product.js (trans piled from .ts) and imported by product-list.ts. Both these files are ES modules.

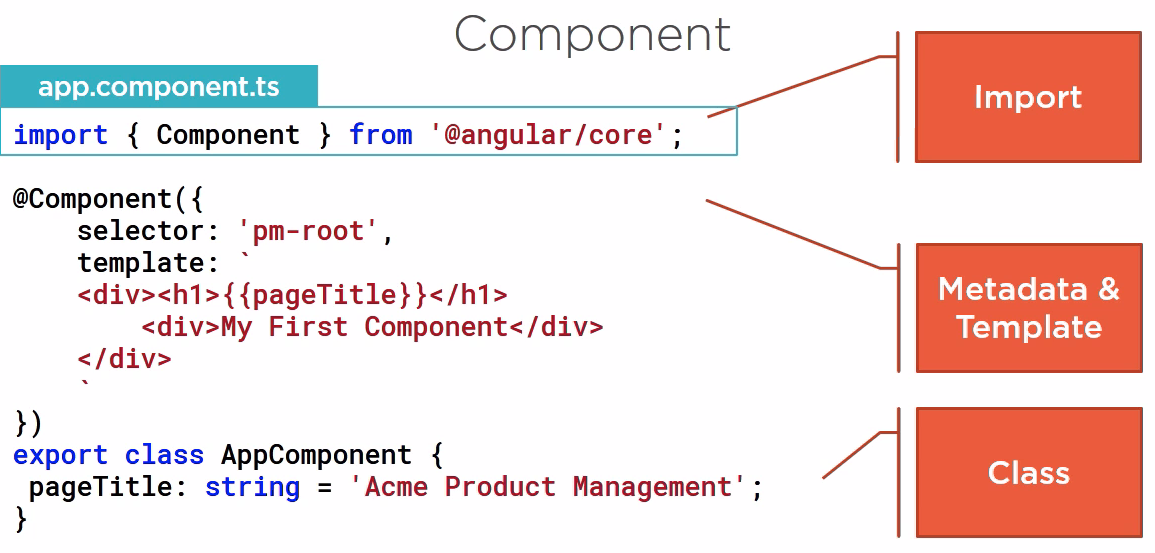
Angular Modules:





**Component:**





The class defines the properties and methods needed by the view.

export class AppComponent {

title = 'Angular: Getting Started';

}

The component decorator defines the metadata which includes template that lays out the view managed by this component

@Component({

selector: 'pm-root',

templateUrl: './app.component.html',

styleUrls: ['./app.component.css']

})

Import imports the members needed.

import { Component } from '@angular/core';

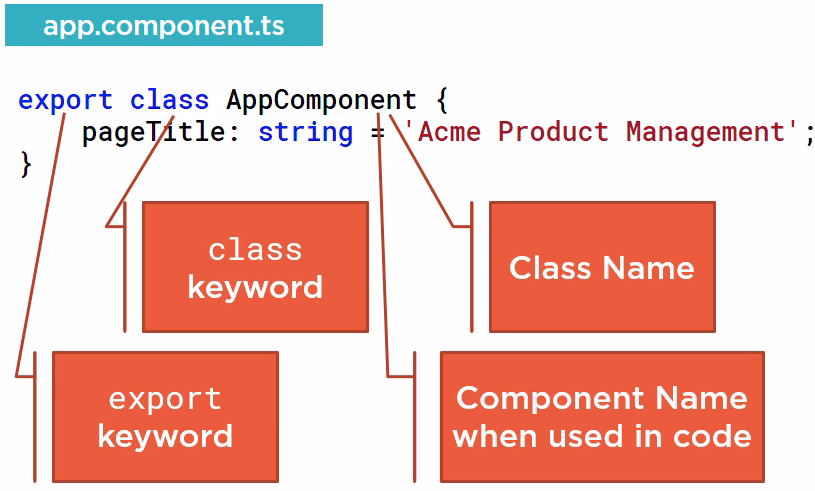
Different parts of a component:

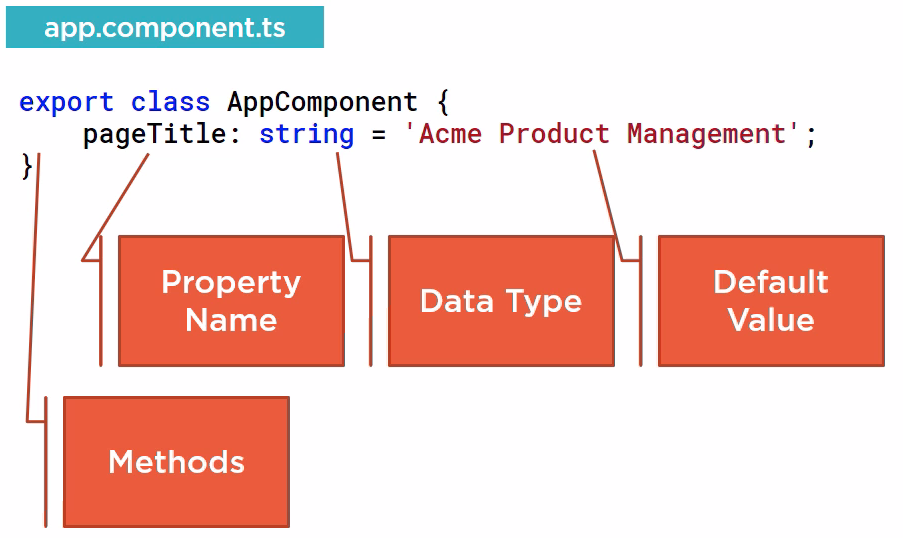
By convention, the root component in Angular is AppComponent.

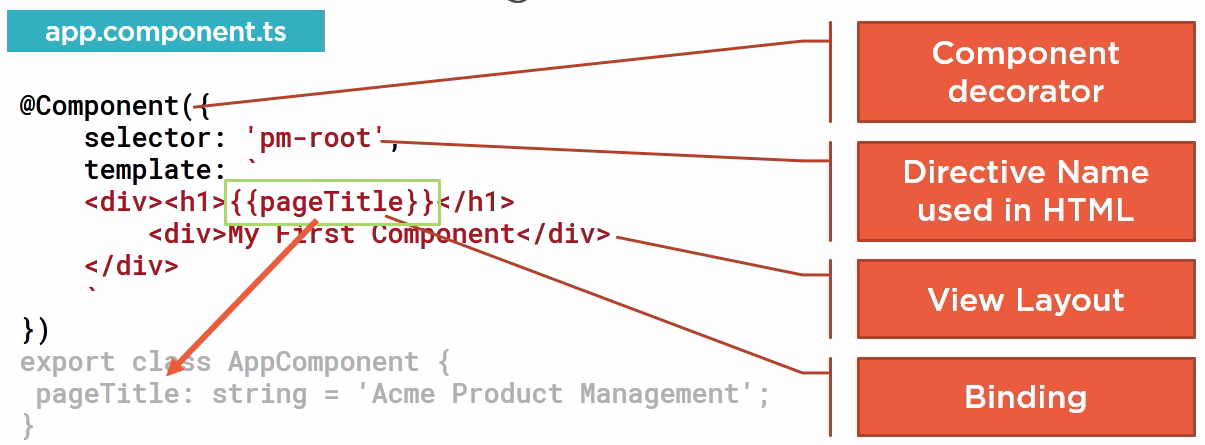
export class AppComponent {

pageTitle: String = 'Acme Product Management';

}







An angular component becomes a component if it is decorated with @Component() decorator.

Decorators are functions which add metadata to the feature they decorate.

@Component() is a decorator.

It accepts and object within curly braces which can have many attributes.

The object here is below.

{

selector: 'pm-root',

template: `

<div>

<h1>{{pageTitle}}</h1>

<div>My First Component</div>

</div>

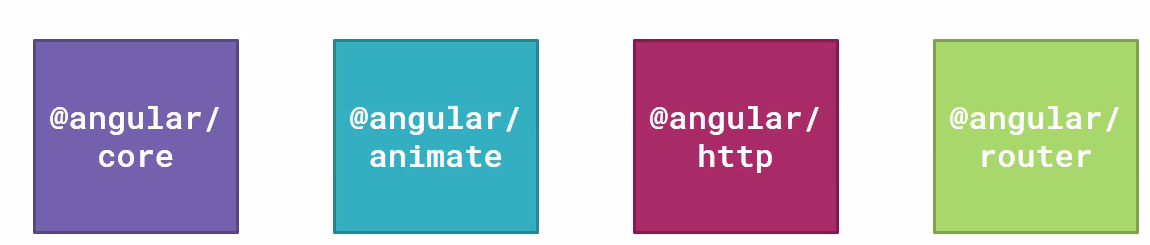
`

}

The selector attribute is used if the template is to be displayed in html using <pm-root></pm-root>.

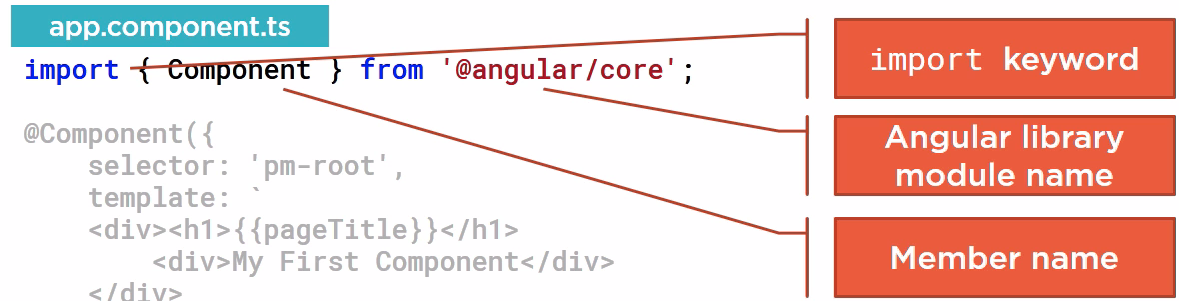
{{pageTitle}} is used to bind to property.

Different Angular Modules:

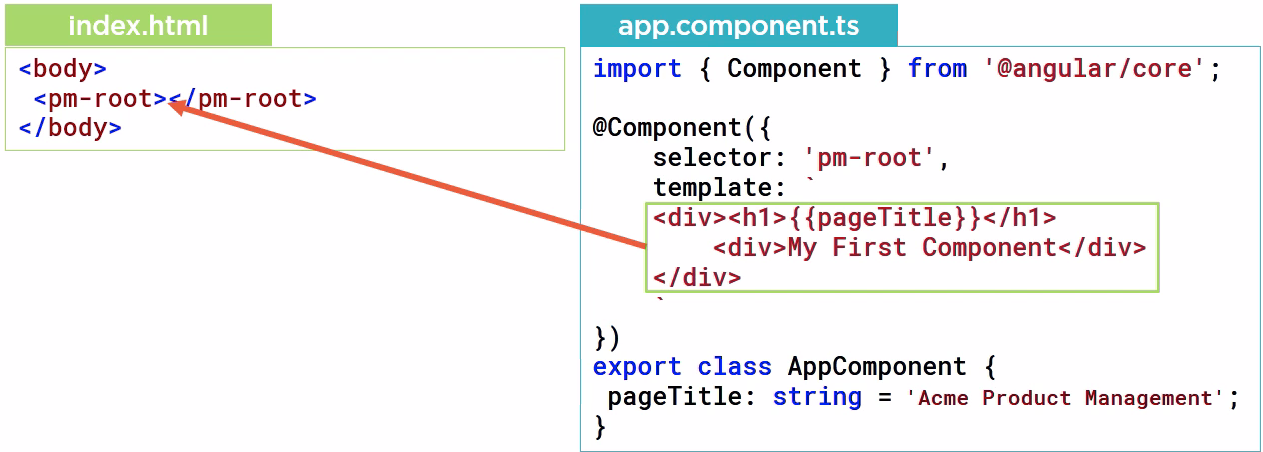


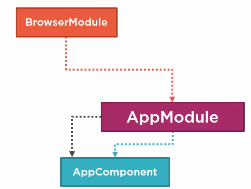
The @Component() decorator function needs to be imported from Angular Core.

import { Component } from "@angular/core";



How does everything work:





AppModule = app.module.ts(This is the main angular module)

AppComponent = app.component.ts defined earlier.

**AppModule – Root Module of angular app.**

Uses @NgModule() decorator function.

import { BrowserModule } from '@angular/platform-browser';

import { NgModule } from '@angular/core';

import { AppComponent } from './app.component';

@NgModule({

declarations: [AppComponent],

/\*

Necessary for all browser apps

\*/

imports: [BrowserModule],

/\*\*

\* startup component which contains selector

\* to display in html, in this case

\* <pm-root> in AppComponent

\* \*/

bootstrap: [AppComponent]

})

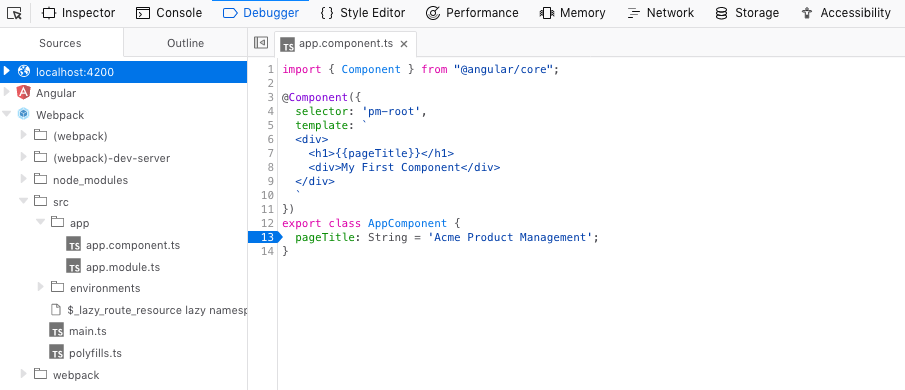
export class AppModule { }

**Debugger:**

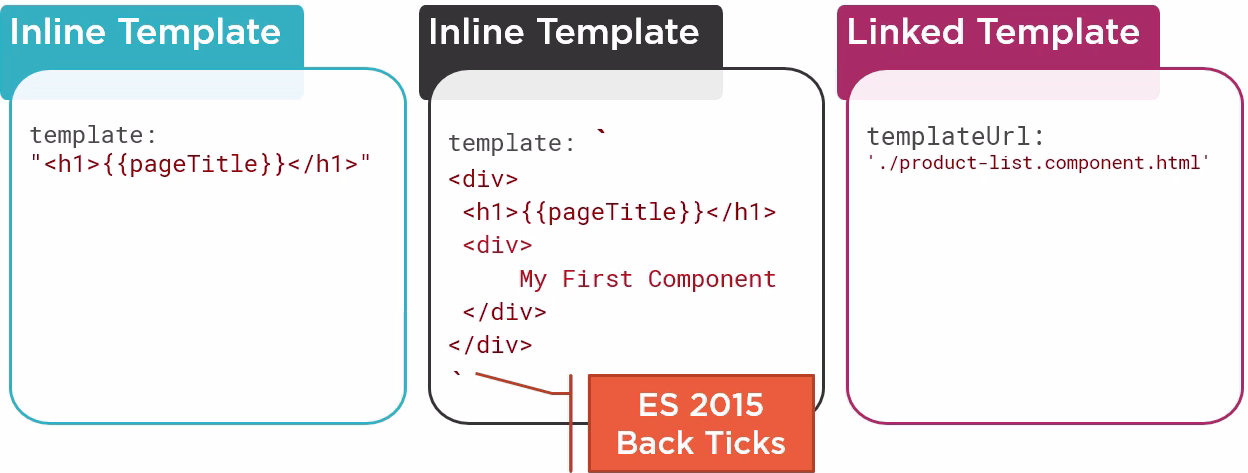
Since Angular CLI uses webpack, debugging can be directly done in browser.

Debugger>Webpack>src>app>codefile(Firefox)

Source>Webpack>src>app>codefile(Firefox)

****

**Many ways to build a template:**

****

npm install bootstrap font-awesome