ng2 Cheat Sheet

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@Component

template	define template (using `)
template Url	define template
host	the element in which a component is attached to

helpers

(click)	js default, propagates the `click` event to **all** the parent components. So if want to not allow this, `return false`

syntax

```
<inventory-app></inventory-app> // or
<div inventory-app></div>
input: ['name'] // or
@Input() name: string // or
input: ['inside: outside'] // avoid
@Input('outside') inside: string // avoid
// set classes conditionally
[class.selected]="isSelected(myProduct)"
// (p122/644)
src="{{product.imageUrl}} // wrong
[src]="product.imageUrl" // right
```

best practices

use `template` when the view is not much & vice versa. the drawback of using `template` is not having syntax hightlight

using the `host` option is nice because it means we can **encapsulate** the `app-article` marup **within** our component. By using the `host` option, we're able to configure our **host element** from **within** the component.

isolate the data structures from the component code

law of demeter a given object should assume as little as possible about the structure or properties of other objects

best practices (cont)

fat models, skinny controllers

when buiding a new angular app, mockup the design & then break it down into components

normally, author wouldn't pass more than 5 arguments to a function.

cli

watchman	OSX: `brew`, Linux: embercli, Window: native Nodejs watcher
ng new `app`	create a new ng2 app
ng serve	run app through `http` built in. `Window: --host 0.0.0.0`
ng generate component `component`	create a new component

resources

Angular Style Guide

Observer Pattern

terminology

`#newtitle`

> is called `resolve`. makes the variable `newtitle` available to the **expressions** within the **view**. `newtitle` is an **object** (typeof `HTMLInputElement`) that represents this `input` DOM element

`newtitle`

> template variable

`Article[]` or `Array<Article>`

> `generics`

`{{ }}`

> template binding

`private currentProduct: Product`

> local component state

knowledge

- one of the big ideas behind Angular is the idea of `components`.
- the fundamental idea behind `components`: we'll teach the browser **new tags** that have custom functionality.
- `components` are the **new** version of `directives` `ng-1`

angular1's **dependency injection** used the **annotation** concept behind the scenes

when boot an Angular app, you're not booting a component directly, but instead you create an `NgModule` which points to the component you want to load.

you have to declare **components** in a `NgModule` before you can use them in your templates

Angular 1, **directives** match globally. Angular 2, need to **explicitly** specify **which components** you want to use

JavaScript, **by default**, **propagates** the `click` event to **all the parent components**

`href=""` (empty link) `===` **reload page**

an angular2 is nothing more than a **tree** of **components**. **top level Component** is the application itself.that's what the browser will render when **booting** (a.k.a **bootstrapping**) the app.

`@Component` annotation is where you configure your component. Primary, `@Component` will configure how the **outside world** will interact with your component.

`[]:input`, `():output`.

Data flows in to your component via **input bindings** and **events flow out** of your component through **output binding**.
Think of the set of **input** + **output bindings** as defining the **public API** of your component.

In Angular, you send data out of components via **outputs**.

knowledge (cont)

`(onProductSelected)`: the name of the **output** we want to **listen** on

`productWasSelected`: the function we want to call when **something new** is on this **output**

`$event`: special variable that represents the thing emitted on the **output**

when we specify that a **component** takes an **input**, it is expected that the definition class will have **an instance variable** that will receive the value

```
<button (click)="increase()">Inc</button>
```

In this case, the **event** is **internal** to the **component**. we can also expose **public event** (component `output`) that allow the component to talk to the **outside** world

An `EventEmitter` is simply **an object** that helps you implement the `Observer Pattern`. That is, it's an object that can maintain a list of **subscribers** and **publish** events to them.

When we assign an `EventEmitter` to an **output** Angular **automatically subscribes** for us. But can add subscriptions by **our own**.

every component must be declared in one `NgModule` before it can be used in a template

The **recommended way** in Angular 2, and in many modern web frameworks (such as React), is to adopt a pattern of **one-way data binding**. That is, your **data flows only down through components** If you need to **make changes**, you **emit events** that cause changes to happen **at the top** which then trickle down.