Angular for TypeScript Cheat Sheet (v2.0.0-alpha.43)

Source: angular.io/cheatsheet

Bootstrapping	`import {bootstrap} from 'angular2/angular2';`
`bootstrap(MyAppComponent, [MyService, provide(...)]);`	Bootstraps an application with `MyAppComponent` as the root component and configures the DI providers.

Template syntax	
`<input [value]="firstName">`	Binds property `value` to the result of expression `firstName`.
`<div [attr.role]="myAriaRole">`	Binds attribute `role` to the result of expression `myAriaRole`.
`<div [class.extra-sparkle]="isDelightful">`	Binds the presence of the css class `extra-sparkle` on the element to the truthiness of the expression `isDelightful`.
`<div [style.width.px]="mySize">`	Binds style property `width` to the result of expression `mySize` in pixels. Units are optional.
`<button (click)="readRainbow($event)">`	Calls method `readRainbow` when a click event is triggered on this button element (or its children) and passes in the event object.
`<div title="Hello {{ponyName}}">`	Binds a property to an interpolated string, e.g. "Hello Seabiscuit". Equivalent to: `<div [title]="'Hello' + ponyName">`
`<p>Hello {{ponyName}}</p>`	Binds text content to an interpolated string, e.g. "Hello Seabiscuit".
`<my-cmp [(title)]="name">`	Sets up two-way data binding. Equivalent to: `<my-cmp [title]="name" (title-change)="name=$event">`
`<video #movieplayer ...>` `<button (click)="movieplayer.play()" >`	Creates a local variable `movieplayer` that provides access to the `video` element instance in data- and event-binding expressions in the current template.
`<p *my-unless="myExpression">...</p>`	The * symbol means that the current element will be turned into an embedded template. Equivalent to: `<template [my-unless]="myExpression"><p>...</p></template>`
`<p>Card No.: {{cardNumber | myCreditCardNumberFormatter}}</p>`	Transforms the current value of expression `cardNumber` via pipe called `creditCardNumberFormatter`.
`<p>Employer: {{employer?.companyName}}</p>`	The Elvis operator `(?)` means that the `employer` field is optional and if undefined, the rest of the expression should be ignored.

Built-in directives	`import {NgIf, ...} from 'angular2/angular2';`
`<section *ng-if="showSection">`	Removes or recreates a portion of the DOM tree based on the `showSection` expression.
`<li *ng-for="#item of list">`	Turns the `li` element and its contents into a template, and uses that to instantiate a view for each `item in list`.

`<div [ng-switch]="conditionExpression">`
`  <template [ng-switch-when]="case1Exp">...</template>`
`  <template ng-switch-when="case2LiteralString">...</template>`
`  <template ng-switch-default>...</template>`
`</div>`
	Conditionally swaps the contents of the `div` by selecting one of the embedded templates based on the current value of `conditionExpression`.

`<div [ng-class]="{active: isActive, disabled: isDisabled}">`	Binds the presence of css classes on the element to the truthiness of the associated map values. The right-hand side expression should return {class-name: true/false} map.

Forms	`import {FORM_DIRECTIVES} from 'angular2/angular2';`
`<input [(ng-model)]="userName">`	Provides two-way data-binding, parsing and validation for form controls.

Class decorators	`import {Directive, ...} from 'angular2/angular2';`
`@Component({...})` `class MyComponent() {}`	Declares that a class is a component and provides metadata about the component.
`@Pipe({...})` `class MyPipe() {}`	Declares that a class is a pipe and provides metadata about the pipe.
`@Injectable()` `class MyService() {}`	Declares that a class has dependencies that should be injected into the constructor when the dependency injector is creating an instance of this class.

@Directive configuration (used as `@Directive({ property1: value1, ... })`)	
`selector: '.cool-button:not(a)'`	Specifies a css selector that identifies this directive within a template. Supported selectors include: `element`, `[attribute]`, `.class`, and `:not()`. Does not support parent-child relationship selectors.
`providers: [MyService, provide(...)]`	Array of dependency injection providers for this directive and its children.

@Component configuration (@Component extends @Directive, so the @Directive configuration above applies to components as well)	
`viewProviders: [MyService, provide(...)]`	Array of dependency injection providers scoped to this component's view.
`template: 'Hello {{name}}'` `templateUrl: 'my-component.html'`	Inline template / external template url of the component's view.
`styles: '.primary {color: red}'` `styleUrls: ['my-component.css']`	List of inline css styles / external stylesheet urls for styling component's view.
`directives: [MyDirective, MyComponent]`	List of directives used in the the component's template.
`pipes: [MyPipe, OtherPipe]`	List of pipes used in the component's template.

Class field decorators for directives and components	`import {Input, ...} from 'angular2/angular2';`
`@Input() myProperty;`	Declares an input property that we can update via property binding, e.g. `<my-cmp [my-property]="someExpression">`
`@Output() myEvent = new EventEmitter();`	Declares an output property that fires events to which we can subscribe with an event binding, e.g. `<my-cmp (my-event)="doSomething()">`
`@HostBinding('[class.valid]') isValid;`	Binds a host element property (e.g. css class `valid`) to directive/component property (e.g. `isValid`)
`@HostListener('click', ['$event']) onClick(e) {...}`	Subscribes to a host element event (e.g. `click`) with a directive/component method (e.g., `onClick`), optionally passing an argument (`$event`)
`@ContentChild(myPredicate) myChildComponent;`	Binds the first result of the component content query (`myPredicate`) to the `myChildComponent` property of the class.
`@ContentChildren(myPredicate) myChildComponents;`	Binds the results of the component content query (`myPredicate`) to the `myChildComponents` property of the class.
`@ViewChild(myPredicate) myChildComponent;`	Binds the first result of the component view query (`myPredicate`) to the `myChildComponent` property of the class. Not available for directives.
`@ViewChildren(myPredicate) myChildComponents;`	Binds the results of the component view query (`myPredicate`) to the `myChildComponents` property of the class. Not available for directives.

Directive and component change detection and lifecycle hooks (implemented as class methods)	
`constructor(myService: MyService, ...) { ... }`	The class constructor is called before any other lifecycle hook. Use it to inject dependencies, but avoid any serious work here.
`onChanges(changeRecord) { ... }`	Called after every change to input properties and before processing content or child views.
`onInit() { ... }`	Called after the constructor, initializing input properties, and the first call to `onChanges`.
`doCheck() { ... }`	Called every time that the input properties of a component or a directive are checked. Use it to extend change detection by performing a custom check.
`afterContentInit() { ... }`	Called after `onInit` when the component's or directive's content has been initialized.
`afterContentChecked() { ... }`	Called after every check of the component's or directive's content.
`afterViewInit() { ... }`	Called after `onContentInit` when the component's view has been initialized. Applies to components only.
`afterViewChecked() { ... }`	Called after every check of the component's view. Applies to components only.
`onDestroy() { ... }`	Called once, before the instance is destroyed.

Dependency injection configuration	`import {provide} from 'angular2/angular2';`
`provide(MyService, {useClass: MyMockService})`	Sets or overrides the provider for `MyService` to the `MyMockService` class.
`provide(MyService, {useFactory: myFactory})`	Sets or overrides the provider for `MyService` to the `myFactory` factory function.
`provide(MyValue, {useValue: 41})`	Sets or overrides the provider for `MyValue` to the value 41.

Routing and navigation	`import {RouteConfig, ROUTER_DIRECTIVES, ROUTER_PROVIDERS, ...} from 'angular2/router';`

`@RouteConfig([`
`  { path: '/:myParam', component: MyComponent, as: 'MyCmp' },`
`  { path: '/staticPath', component: ..., as: ...}`
`  { path: '/*wildCardParam', component: ..., as: ...}`
`])`
`class MyComponent() {}`
	Configures routes for the decorated component. Supports static, parameterized and wildcard routes.

`<router-outlet></router-outlet>`	Marks the location to load the component of the active route.
`<a [router-link]="[ '/MyCmp', {myParam: 'value' } ]">`	Creates a link to a different view based on a route instruction consisting of a route name and optional parameters. The route name matches the as property of a configured route. Add the '/' prefix to navigate to a root route; add the './' prefix for a child route.
`@CanActivate(() => { ... })` `class MyComponent() {}`	A component decorator defining a function that the router should call first to determine if it should activate this component. Should return a boolean or a promise.
`onActivate(nextInstruction, prevInstruction) { ... }`	After navigating to a component, the router calls component's `onActivate` method (if defined).
`canReuse(nextInstruction, prevInstruction) { ... }`	The router calls a component's `canReuse` method (if defined) to determine whether to reuse the instance or destroy it and create a new instance. Should return a boolean or a promise.
`onReuse(nextInstruction, prevInstruction) { ... }`	The router calls the component's `onReuse` method (if defined) when it re-uses a component instance.
`canDeactivate(nextInstruction, prevInstruction) { ... }`	The router calls the `canDeactivate` methods (if defined) of every component that would be removed after a navigation. The navigation proceeds if and only if all such methods return `true` or a promise that is resolved.
`onDeactivate(nextInstruction, prevInstruction) { ... }`	Called before the directive is removed as the result of a route change. May return a promise that pauses removing the directive until the promise resolves.