

# Why directives selector is in `[ ]`

Asked 1 year, 6 months ago Active 1 year, 6 months ago Viewed 684 times

I noticed that a Directive's selector is usually specified in `[ ]` but is used without the `[ ]` brackets. Why?

4

```
@Directive({
  selector: '[appGoWild]'
})
export class GoWildDirective implements OnInit {
  constructor(private renderer: Renderer2, private el: ElementRef) {}

  ngOnInit() {
    this.renderer.addClass(this.el.nativeElement, 'wild');
  }
}
```



3

## Usage in HTML

```
<h1 appGoWild>
  Hello World!
</h1>
```



asked Feb 14 '18 at 7:07



[Manu Chadha](#)

4,438 6 24 63

if you are enclosing them with square brackets, it will work as attribute selectors and they are as per the style-guide [#02-08](#) – [Aravind](#) Feb 14 '18 at 7:10

@Aravind: What makes you think so? That section of the styleguide does not mention square brackets a single time. – [O. R. Mapper](#) Feb 14 '18 at 7:12

@O.R.Mapper the style guide says us to use attributes for directives – [Aravind](#) Feb 14 '18 at 7:14

@Aravind: No, it does not. It indicates a naming restriction *in case* one uses attributes (or anything else that is not an element) for directives. – [O. R. Mapper](#) Feb 14 '18 at 7:15

## 6 Answers



According to the [docs](#):

6

It's the brackets ( `[ ]` ) that make it an attribute selector.



So, with brackets, the selector refers to an attribute and has to be written as you state:



```
<h1 appGoWild>
```

Without brackets, the selector would refer to an element:

```
<appGoWild>
```

In the aforementioned docs, you can find an example of that with the `app-root` directive at the end of the article.

answered Feb 14 '18 at 7:11



[O. R. Mapper](#)

15.6k 8 44 89

---

This is the correct answer: because the syntax the Angular team chose says so. – [Ingo Bürk](#) Feb 14 '18 at 7:26

---



The `[ ]` in the selector means that the selector name passed will be a property of a tag, not a tag in itself.

0

Without `[ ]` , selector will be used as:



```
@Directive({  
  selector: 'appGoWild'  
})
```

```
<appGoWild></appGoWild>
```

answered Feb 14 '18 at 7:11



Ayush Gupta

3,683 23 52

▲ This is basically CSS selector against attribute

0

▼ [https://developer.mozilla.org/en-US/docs/Web/CSS/Attribute\\_selectors](https://developer.mozilla.org/en-US/docs/Web/CSS/Attribute_selectors)

answered Feb 14 '18 at 7:12



Vasily Liaskovsky

974 7 23

▲ These square brackets are different things.

0

▼ `[]` in selector corresponds to CSS attribute selector. Most directives in use are attribute directives (known since AngularJS), so attribute selectors occur often.

`[]` in template is [property binding](#). If a directive has corresponding `@Input` property, both `<h1 appGoWild>` and `<h1 [appGoWild]>` will work. Otherwise `<h1 appGoWild>` should be used, because `<h1 [appGoWild]>` will cause compiler error.

answered Feb 14 '18 at 7:33



Estus Flask

89.2k 28 153 274

sorry, I didn't understand your example. If the Directive say `[appGoWild]` has `@Input` say `@Input() someInput:string` then shouldn't the usage be `<h1 appGoWild [someInput]="Hello">` . When would I do `h1 [appGoWild]` ? – [Manu Chadha](#) Feb 14 '18 at 10:21

@ManuChadha `h1 [appGoWild]` doesn't do anything useful and same as `h1 [appGoWild]="undefined"` . I believe it will cause virtually no performance overhead. You can use it if you want to designate in template that this is a directive and not just exotic HTML attribute you're not aware of.  
– [Estus Flask](#) Feb 14 '18 at 16:44

▲ Hope you get a understanding from others answers, now am explaining a little about selector to get a clear view in this.

0

▼ There are three types of selector

1. element selector - you can create new html tag
2. class selector - you can use this as class in HTML tags
3. property selector - you can create new property in HTML

```
selector : 'your-option'    // element selector
selector : '[your-option]'  // property selector
selector : '.your-option'   // class selector
```

To use this in HTML

```
<your-option></your-option>    /* this is element selector usage
<div your-option></div>        /* this is property selector usage
<div class="your-option"></div> /* this is class selector usage
```

answered Feb 14 '18 at 7:36



**Prasanth S**

**337** 2 14

- 
- 1 *property selector* - it's attribute selector. The fact that it also serves to bind properties in template is coincidental; there are not so many balanced delimiters on the keyboard. – [Estus Flask](#) Feb 14 '18 at 7:39

yes, when it comes to directives, we call it as attribute selector – [Prasanth S](#) Feb 14 '18 at 7:47

- 
- 1 In addition to @estus comment here is an example where we can see that even (output) will be matched like [output] [ng-run.com/edit/GGiJyuOVxqcvAfX1bW8G](#) So (output) is just attribute [alexzuza.github.io/enjoy-ng-parser/#htmlNode](#) – [yurzui](#) Feb 14 '18 at 7:48
- 

It is a convention to use attribute selector `[]` for directives. As directives usually modifies the behavior of the element it is attached to.

0

For example: we can have directive `appChangeColor` to change background color on `hover`. This can be applied to any element be it - `<p>` or `<a>`.

```
<p appChangeColor>Some Text</p>
<a appChangeColor>Some Link</a>
```

If we use element selector then it would become impossible to add this behavior to the elements.

answered Feb 14 '18 at 7:44

