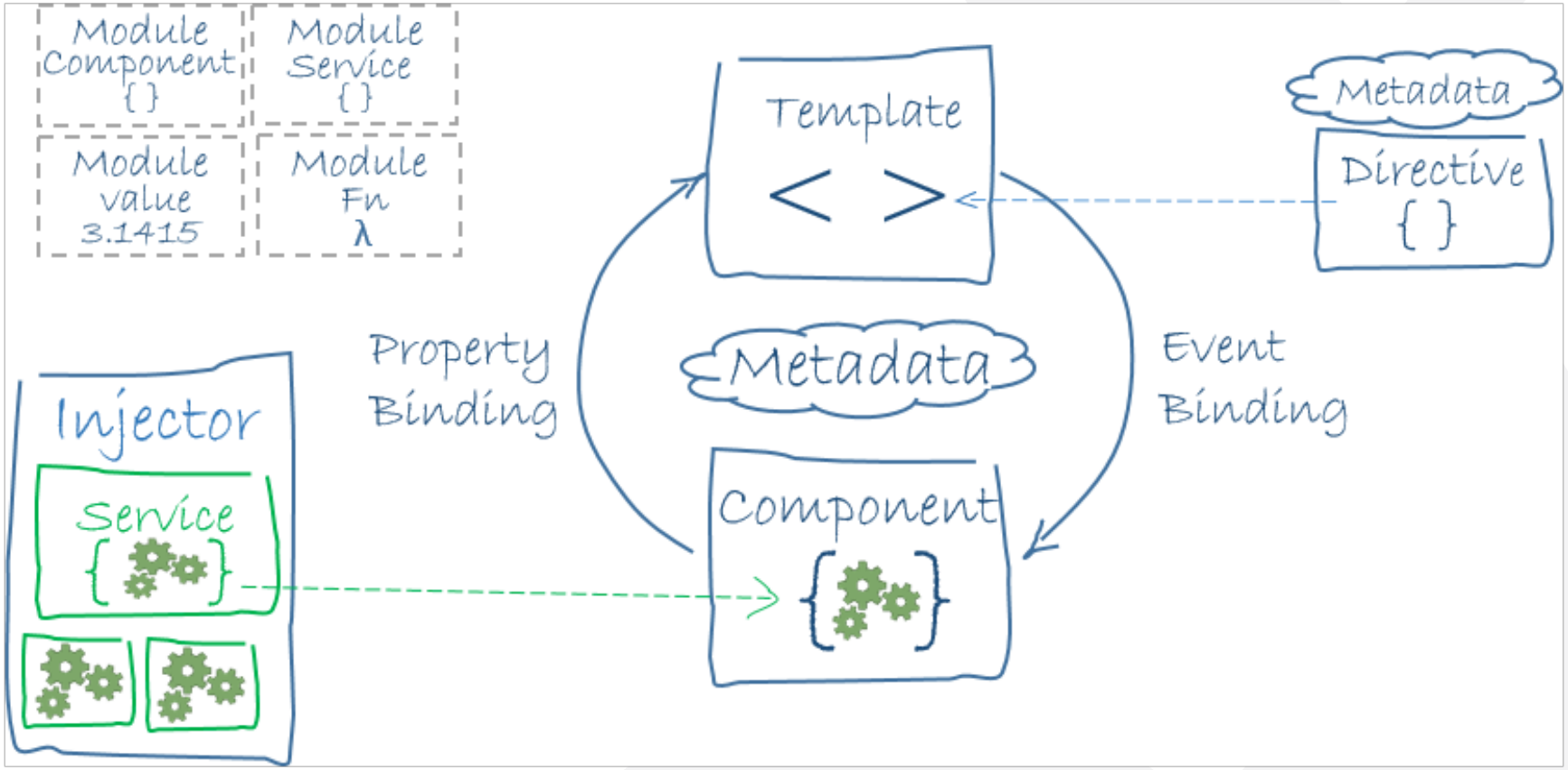
Template Syntax

Template Syntax



ilionx
Your partner in digital business

Template Syntax

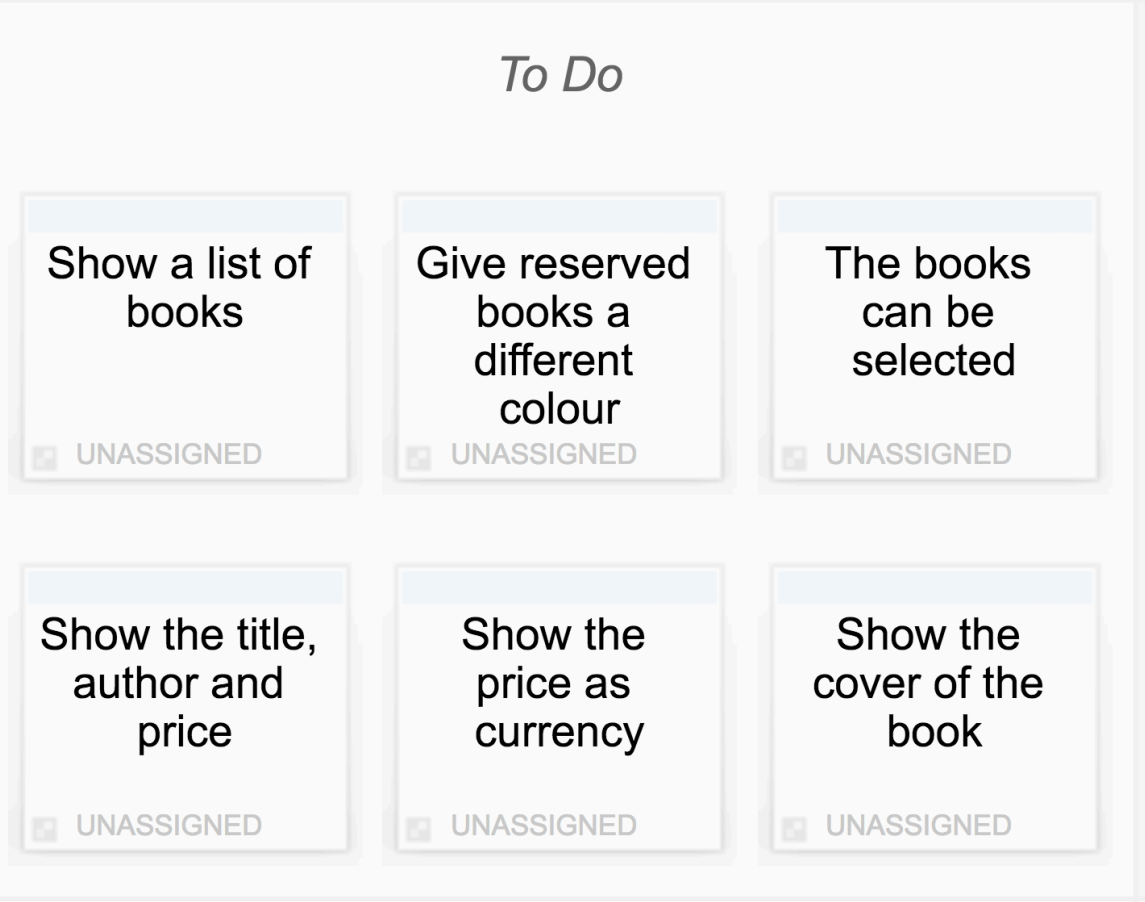
- Syntax to control the view / template
- Connect the view to the behaviour
- Compiled by Angular

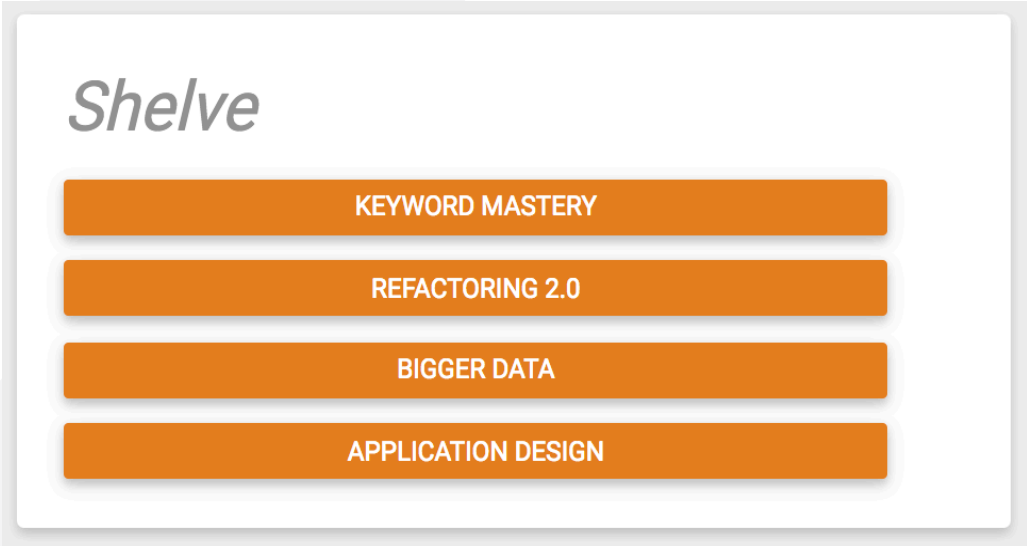
ilionx
Your partner in digital business

Template Syntax

- {{ interpolation }}
- | pipes
- * structural directives
- # template reference variable
- attribute directives
- [property] and (event) binding

Situation

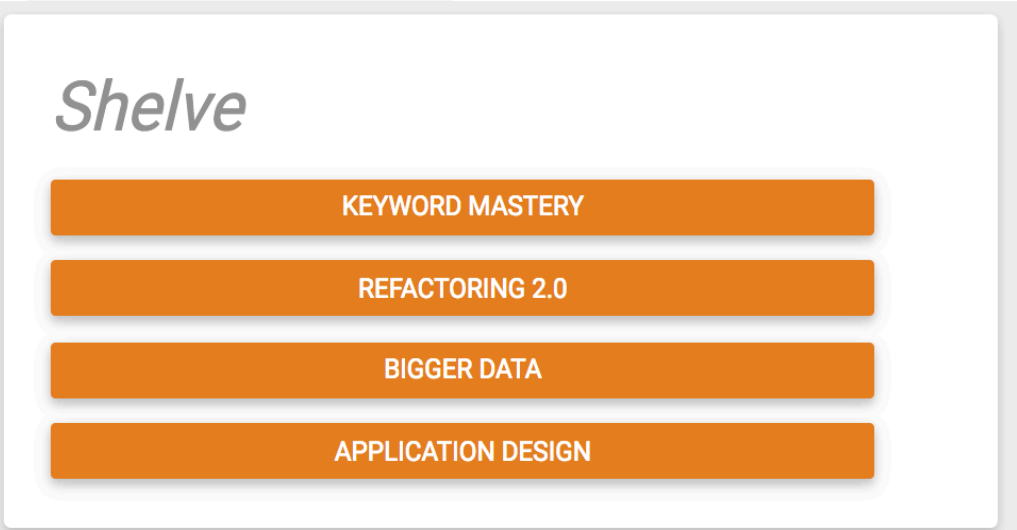




ilionx
Your partner in digital business

Template Syntax

```
<ul>
  <li
    *ngFor="let book of books">
    <button [ngClass]="{'bg-carrot':
                        book.reserved}"
            (click)="onSelect(book)">
      {{ book.title }} -
       {{ book.price | currency: 'EUR' }}
    </button>
  </li>
</ul>
```

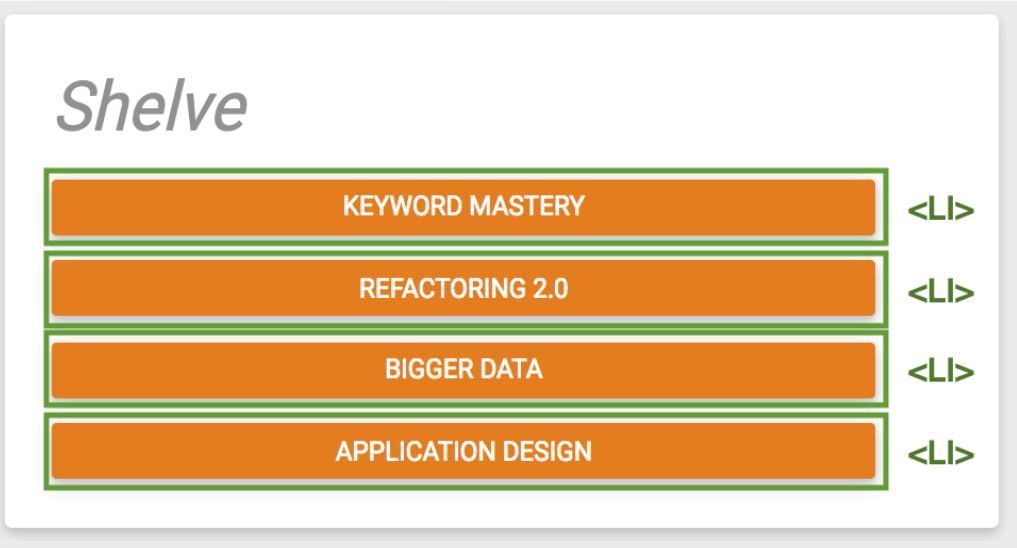


ilionx
Your partner in digital business

Template Syntax

Structural directive changes the DOM

```
<ul>
  <li
    *ngFor="let book of books">
    <button [ngClass]="{'bg-carrot':
                        book.reserved}"
            (click)="onSelect(book)">
      {{ book.title }} -
      {{ book.price | currency: 'EUR' }}
    </button>
  </li>
</ul>
```

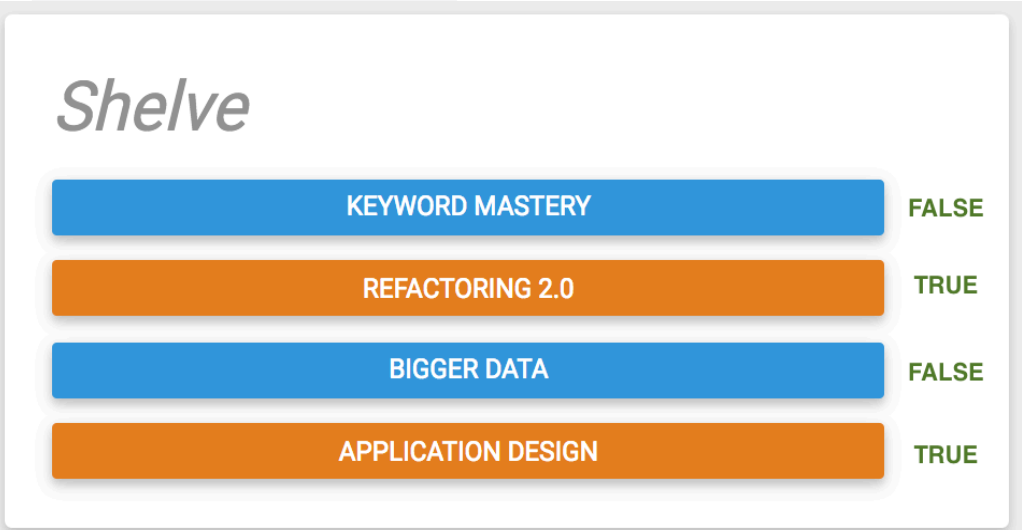


ilionx
Your partner in digital business

Template Syntax

Attribute directive adds functionality

```
<ul>
  <li
    *ngFor="let book of books">
    <button [ngClass]="{'bg-carrot':
                        book.reserved}"
            (click)="onSelect(book)">
      {{ book.title }} -
      {{ book.price | currency: 'EUR' }}
    </button>
  </li>
</ul>
```

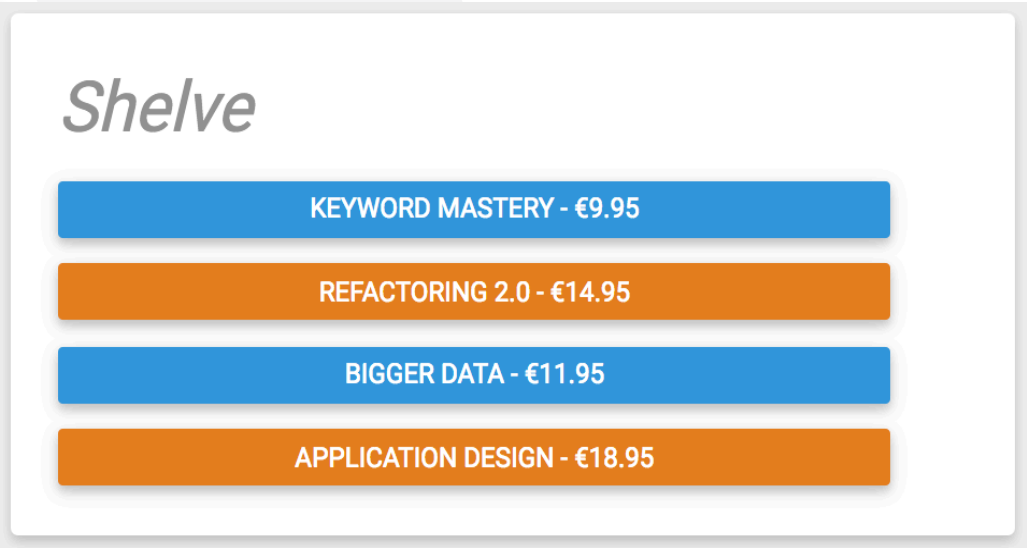


ilionx
Your partner in digital business

Template Syntax

Interpolation shows properties

```
<ul>
  <li
    *ngFor="let book of books">
    <button [ngClass]="{'bg-carrot':
                        book.reserved}"
            (click)="onSelect(book)">
      {{ book.title }} -
      {{ book.price | currency: 'EUR' }}
    </button>
  </li>
</ul>
```

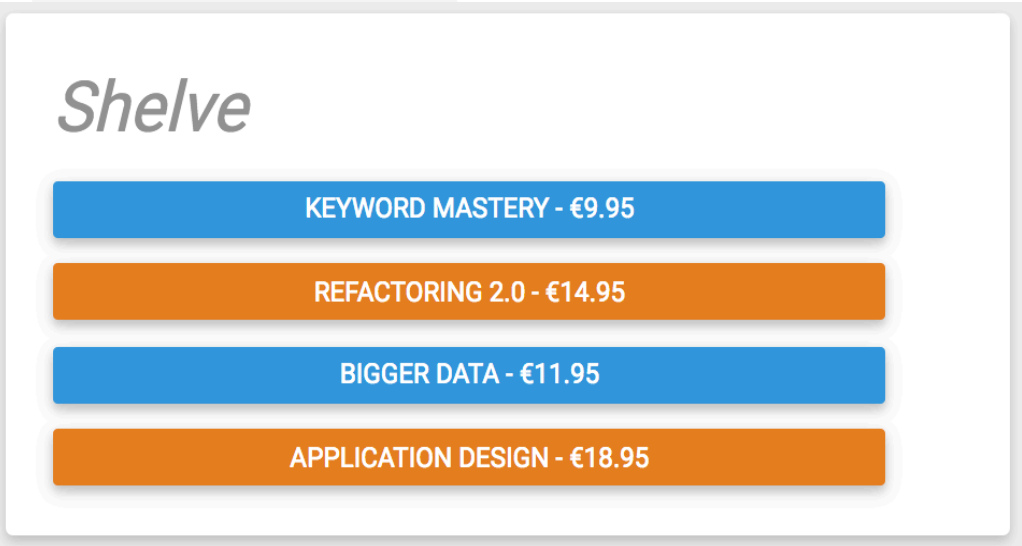


ilionx
Your partner in digital business

Template Syntax

Pipes transform output

```
<ul>
  <li
    *ngFor="let book of books">
    <button [ngClass]="{'bg-carrot':
                        book.reserved}"
            (click)="onSelect(book)">
      {{ book.title }} -
      {{ book.price | currency: 'EUR' }}
    </button>
  </li>
</ul>
```



(event) binding

Event binding connects user actions to the code

```
<ul>
  <li
    *ngFor="let book of books">
    <button [ngClass]="{'bg-carrot':
                        book.reserved}"
            (click)="onSelect(book)">
      {{ book.title }} -
      {{ book.price | currency: 'EUR' }}
    </button>
  </li>
</ul>
```

ilionx
Your partner in digital business

[property] binding

Evaluate the expression and set the right property

```
<ul>
  <li
    *ngFor="let book of books">
    <button [ngClass]="{'bg-carrot':
                        book.reserved}"
            (click)="onSelect(book)">
      <img [src]="book.img"
           [attr.aria-label]="book.title"/>
    </button>
  </li>
</ul>
```

ilionx
Your partner in digital business

*ngIf

Show an element conditionally

```
<div *ngIf="ready">
    content
</div>
```

ilionx
Your partner in digital business

*ngIf; else

is a Template reference variable

```
<div *ngIf="ready; else notReady">
    content
</div>
<ng-template #notReady> content </ng-template>
```

ilionx
Your partner in digital business

*ngFor revisited

Get the index

```
<li *ngFor="let book of books; index as i”>
   {{ i }}. {{ book.name }}
</li>
```

Also:

- first, last, even, odd

ilionx
Your partner in digital business

CommonModule

CommonModule provides Angular pipes & directives

```
@NgModule({
   imports: [ CommonModule ]
})
```

ilionx
Your partner in digital business

CommonModule @Directives

- *ngFor
- *ngIf
- ngSwitch
- ngClass
- ...

ilionx
Your partner in digital business

CommonModule @Pipes

- | uppercase, lowercase, titlecase
- | date
- | currency
- | json
- | keyvalue

ilionx
Your partner in digital business

Recap Template Syntax

- CommonModule
- {{ interpolation }}
- | pipe
- *ngFor, *ngIf
- # template reference variable
- [property binding]
- (event binding)

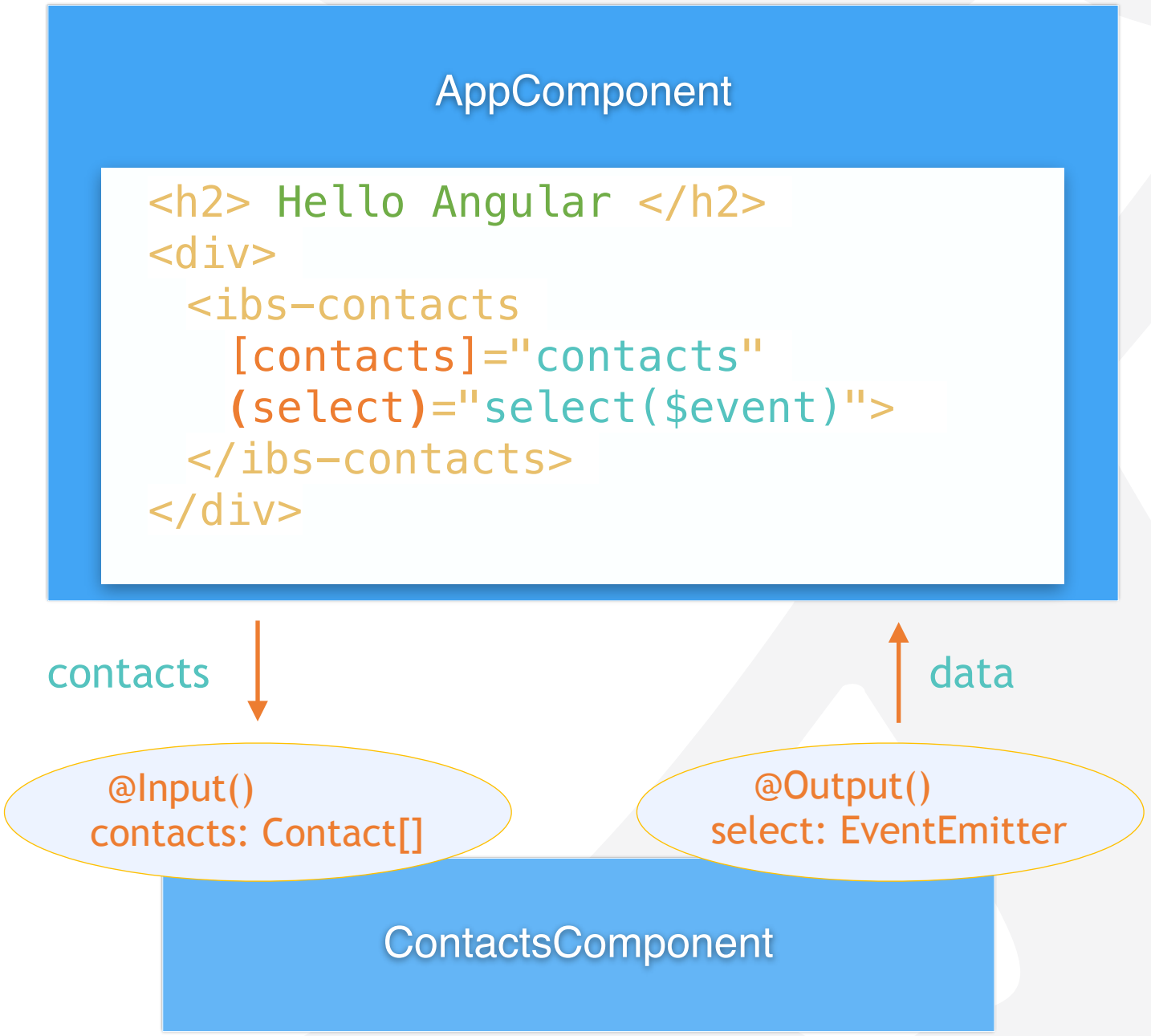
ilionx
Your partner in digital business

Component communication

Component communication

- Tree structure
- Parent / Child relation
- They are connected through the template

ilionx
Your partner in digital business


AppComponent
<h2> Hello Angular </h2>

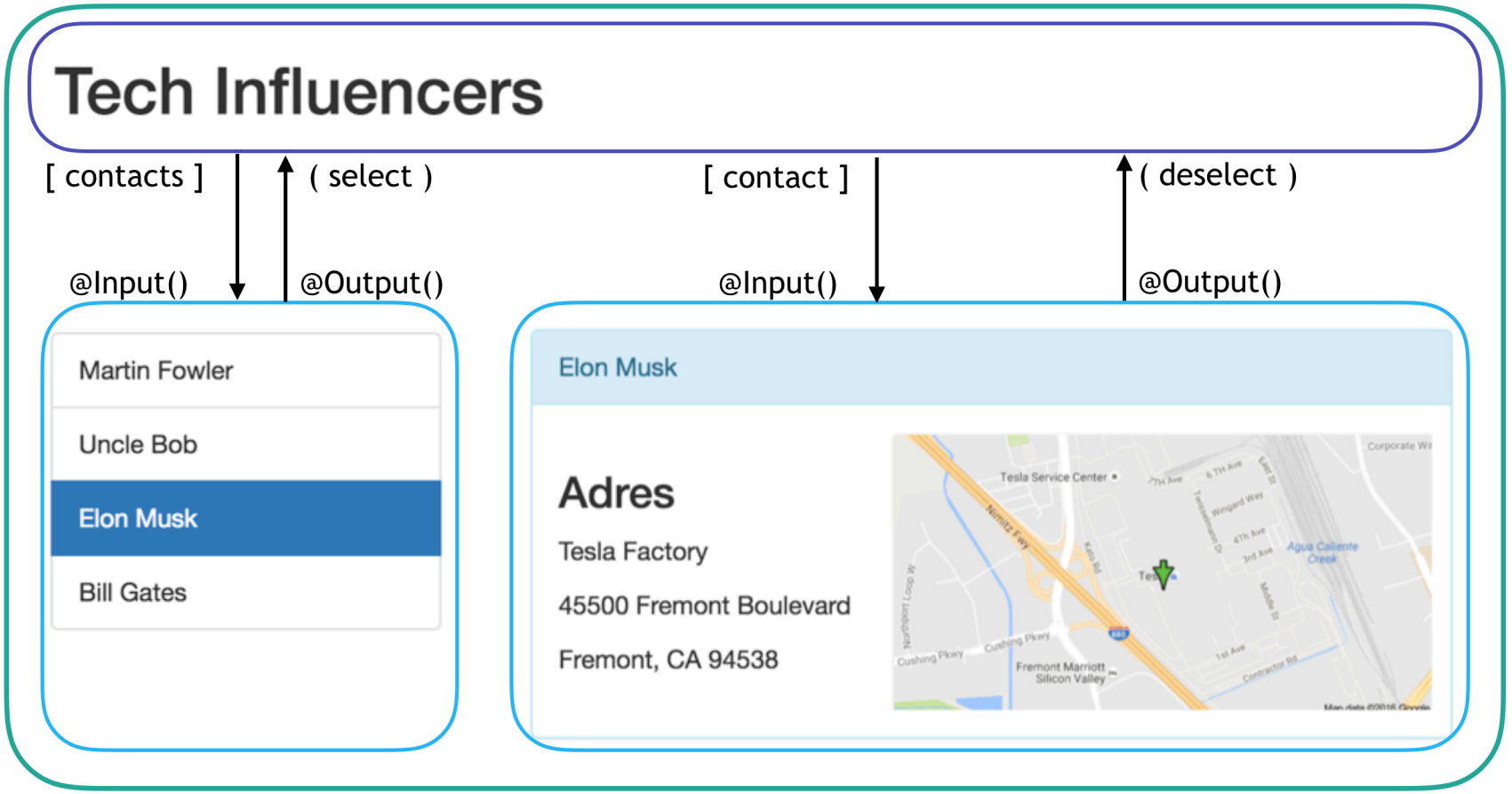
<ibs-contacts
[contacts]="contacts"
(select)="select($event)">
</ibs-contacts>

contacts
data
@Input()
contacts: Contact[]
@Output()
select: EventEmitter
ContactsComponent

Component communication

- Via [property] binding
- @Input()
- Via (event) binding
- @Output()

ilionx
Your partner in digital business


Tech Influencers
[contacts]
(select)
@Input()
@Output()
[contact]
(deselect)
@Input()
@Output()
Martin Fowler
Uncle Bob
Elon Musk
Bill Gates
Elon Musk
Adres
Tesla Factory
45500 Fremont Boulevard
Fremont, CA 94538
Tesla Service Center
Fremont Marriott Silicon Valley

Tech Influencers

- Martin Fowler
- Uncle Bob
- Elon Musk
- Bill Gates

Elon Musk

Adres

Tesla Factory

45500 Fremont Boulevard

Fremont, CA 94538

Tech Influencers

- Martin Fowler
- Uncle Bob
- Elon Musk
- Bill Gates

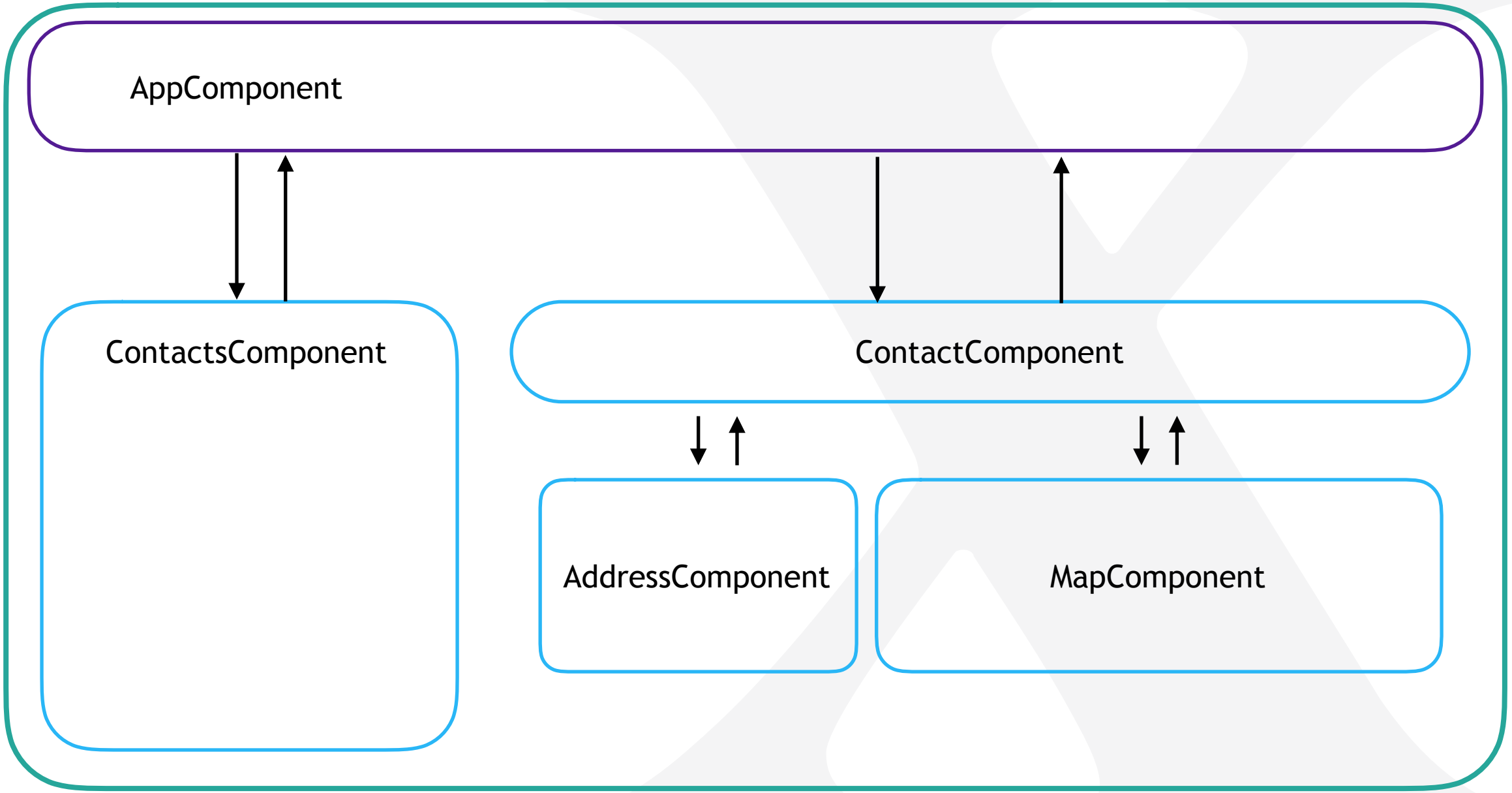
Elon Musk

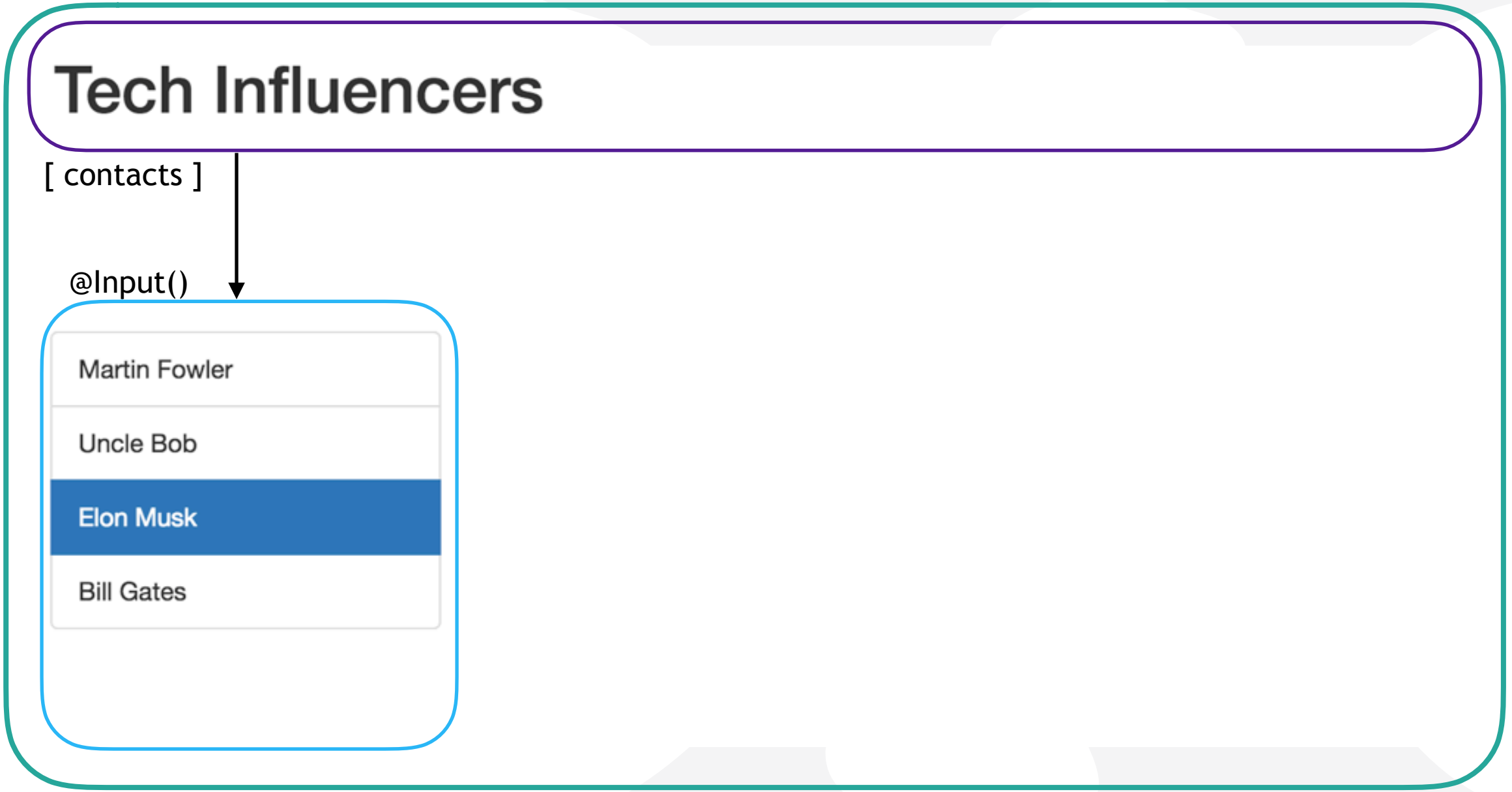
Adres

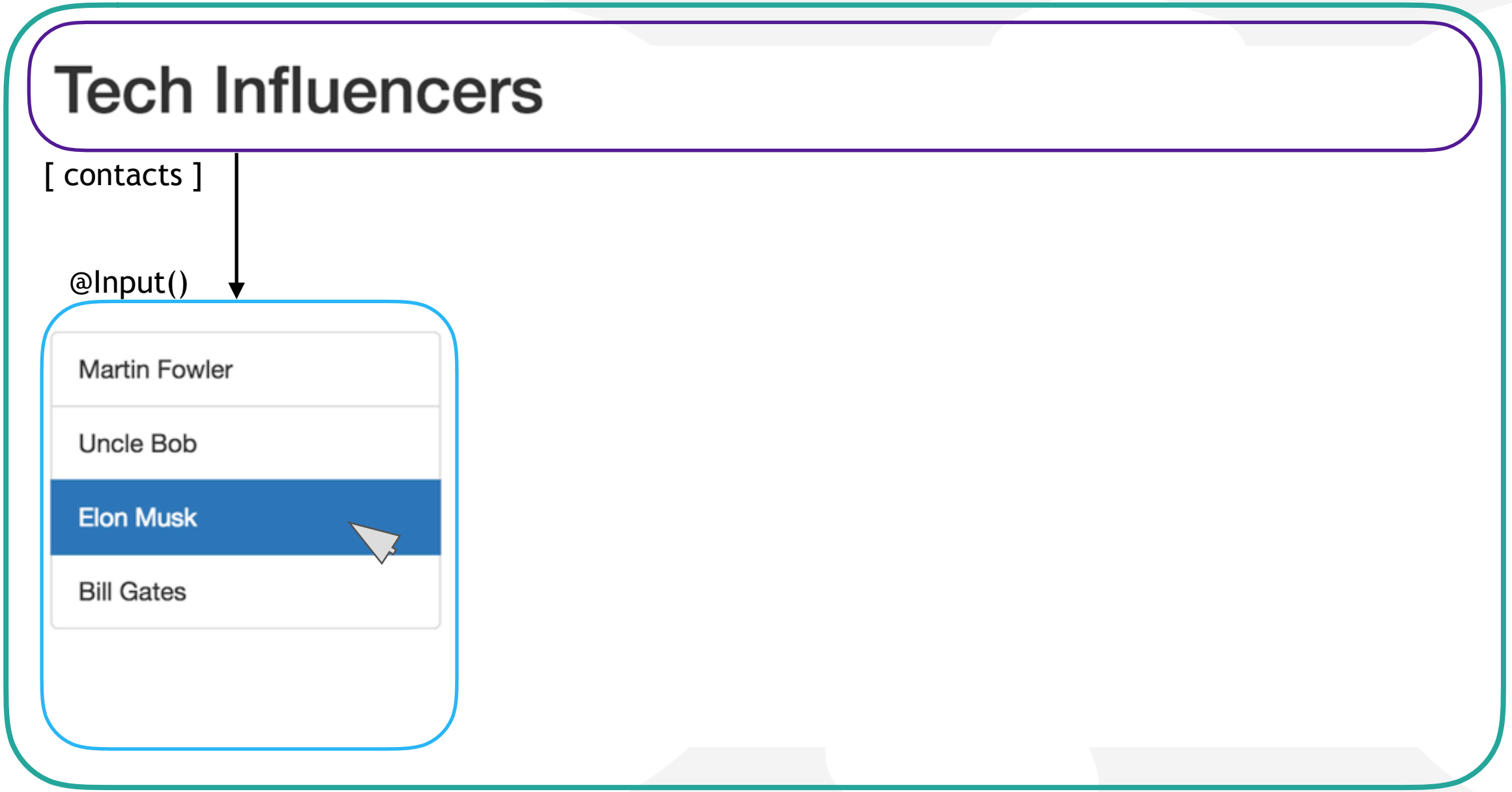
Tesla Factory

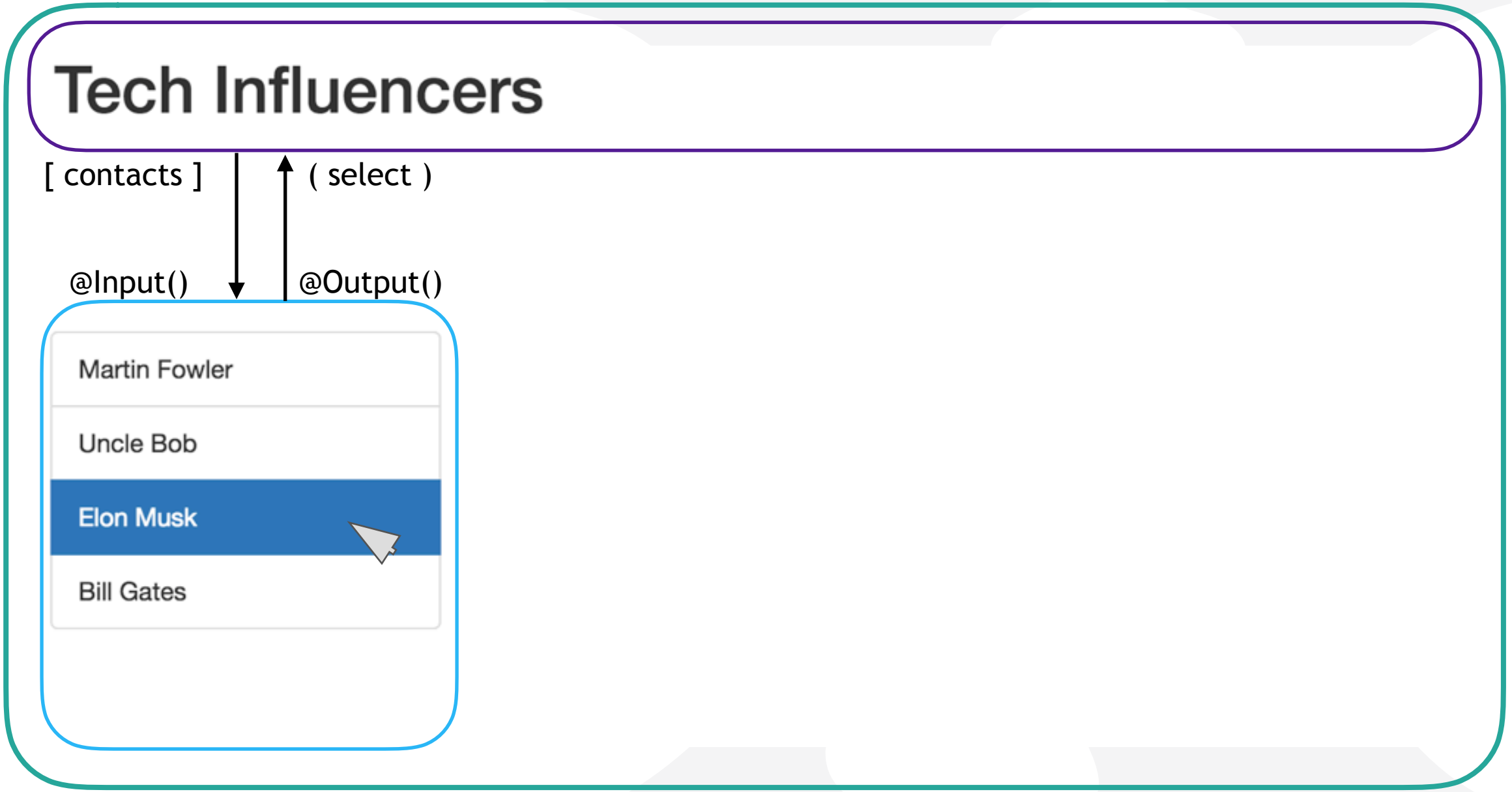
45500 Fremont Boulevard

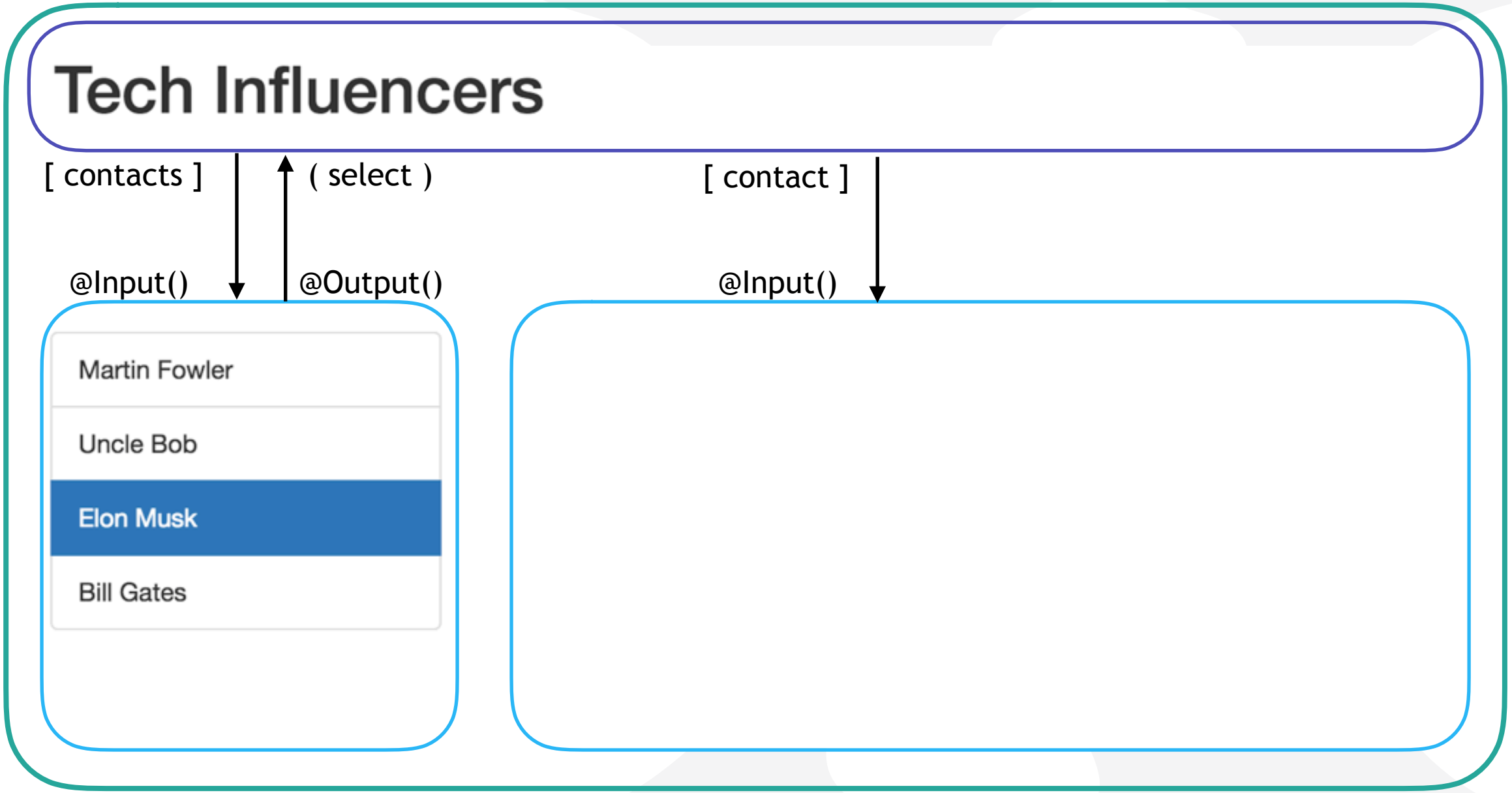
Fremont, CA 94538


AppComponent
ContactsComponent
ContactComponent
AddressComponent
MapComponent


Tech Influencers
[contacts]
@Input()
Martin Fowler
Uncle Bob
Elon Musk
Bill Gates


Tech Influencers
[contacts]
@Input()
Martin Fowler
Uncle Bob
Elon Musk
Bill Gates


Tech Influencers
[contacts]
(select)
@Input()
@Output()
Martin Fowler
Uncle Bob
Elon Musk
Bill Gates


Tech Influencers
[contacts]
(select)
[contact]
@Input()
@Output()
@Input()
Martin Fowler
Uncle Bob
Elon Musk
Bill Gates

Tech Influencers

[contacts]

(select)

@Input()

@Output()

- Martin Fowler
- Uncle Bob
- Elon Musk
- Bill Gates

[contact]

(deselect)

@Input()

@Output()

Elon Musk

Adres

Tesla Factory

45500 Fremont Boulevard

Fremont, CA 94538

Costs

- Architecture setup
- Feels over-engineered
- Different ways

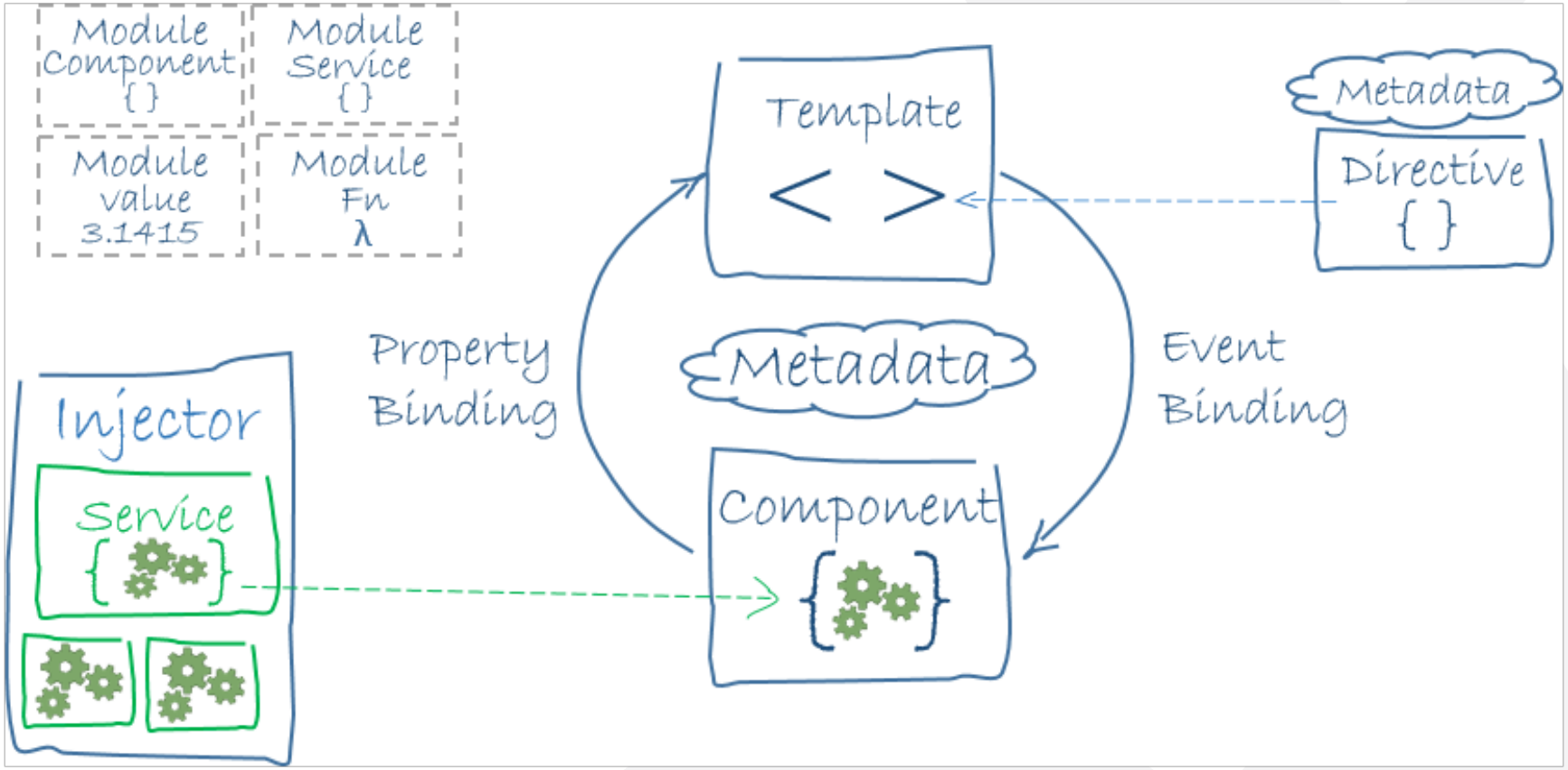
ilionx
Your partner in digital business

Benefits

- Testability
- Easier mental modal
- Flexibility for change
- Uniformity

ilionx
Your partner in digital business

Code


Module
Component
{}
Module
Service
{}
Module
value
3.1415
Module
Fn
λ
Template
< >
Metadata
Directive
{ }
Property
Binding
Metadata
Event
Binding
Injector
Service
Component