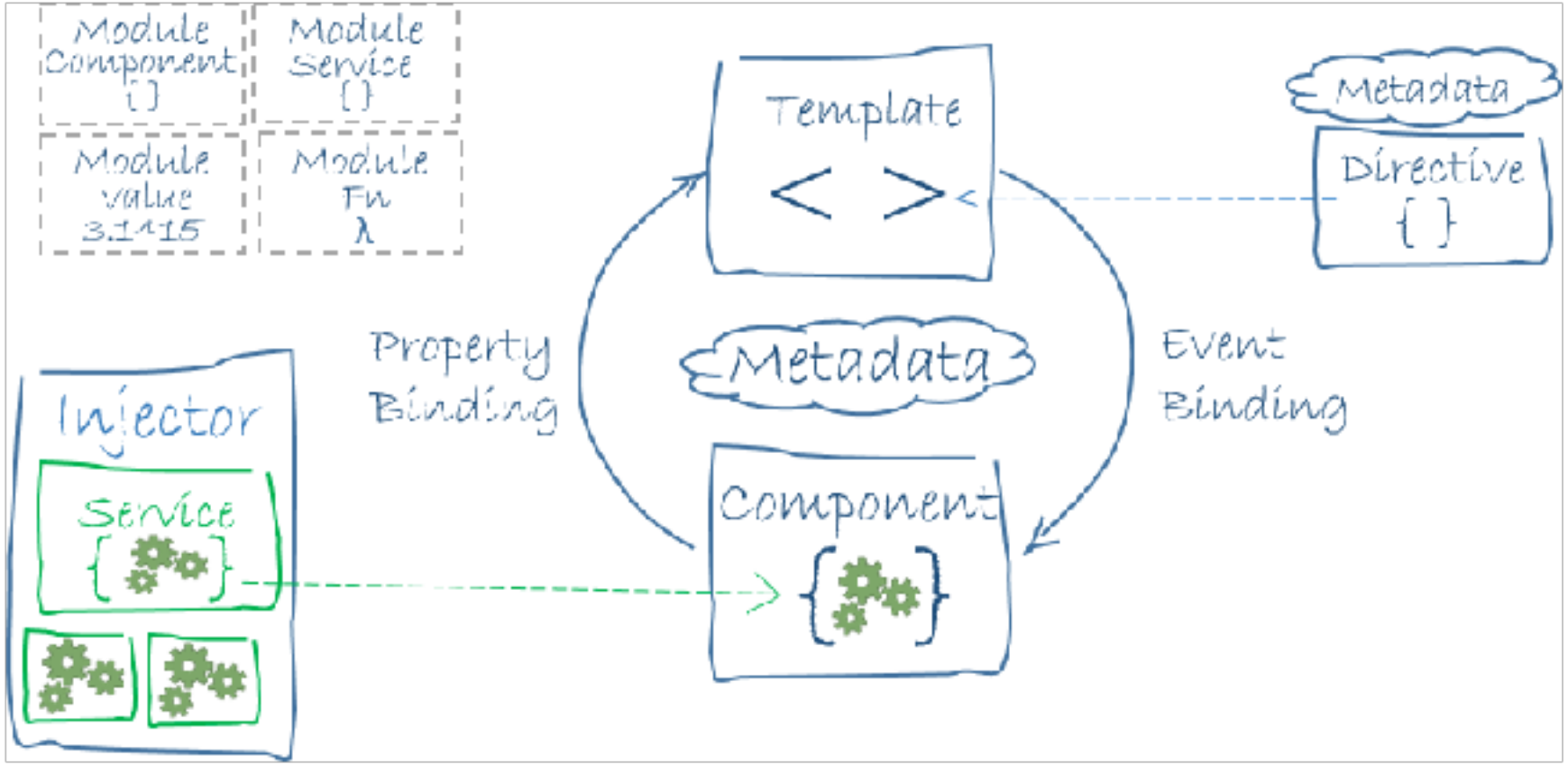
Template syntax

Template syntax



Template syntax

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

Template syntax toolbox

- CommonModule
- FormsModule / ReactiveFormsModule
- AnimationsModule
- …

CommonModule

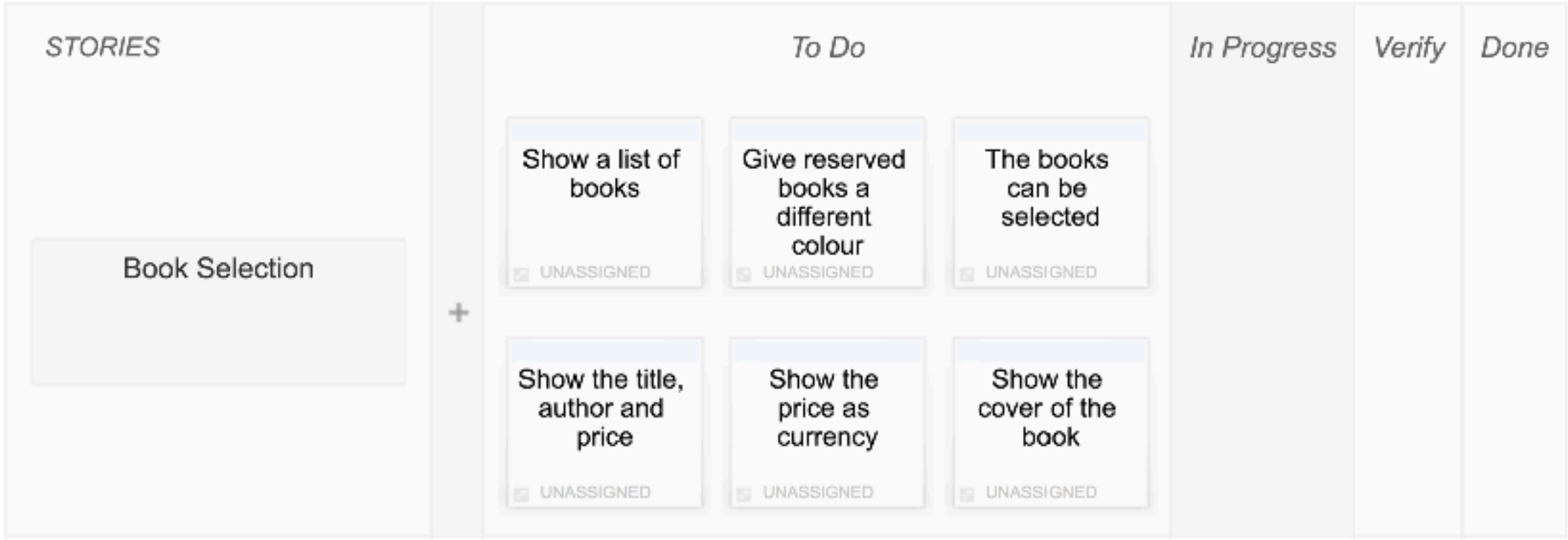
CommonModule provides Angular pipes & directives

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

Template Syntax

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

Situation



Template Syntax

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

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': true }}
    </button>
  </li>
</ul>
```

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': true }}
    </button>
  </li>
</ul>
```

Template Syntax

Interpolation shows properties on screen

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

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': true }}
    </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': true }}
    </button>
  </li>
</ul>
```

[property] binding

Setting properties on components or elements

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

*ngIf

Show an element conditionally

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

*ngIf; else

is a Template reference variable

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

*ngFor revisited

Get the index

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

Also:

- first, last, even, odd

CommonModule @Directives

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

CommonModule @Pipes

- | uppercase
- | lowercase
- | date
- | currency
- …

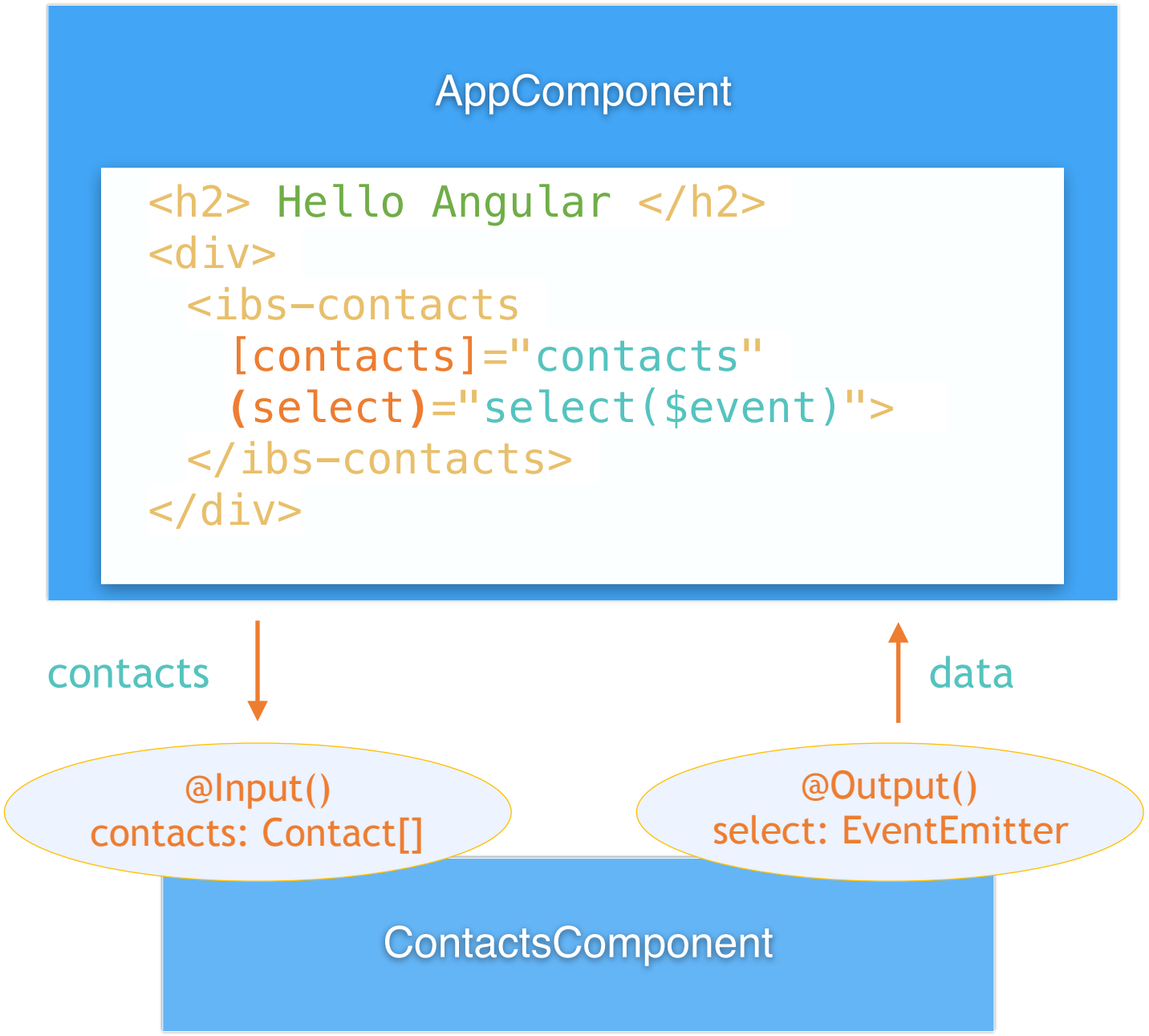
Recap Template Syntax

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

Component communication

Component communication

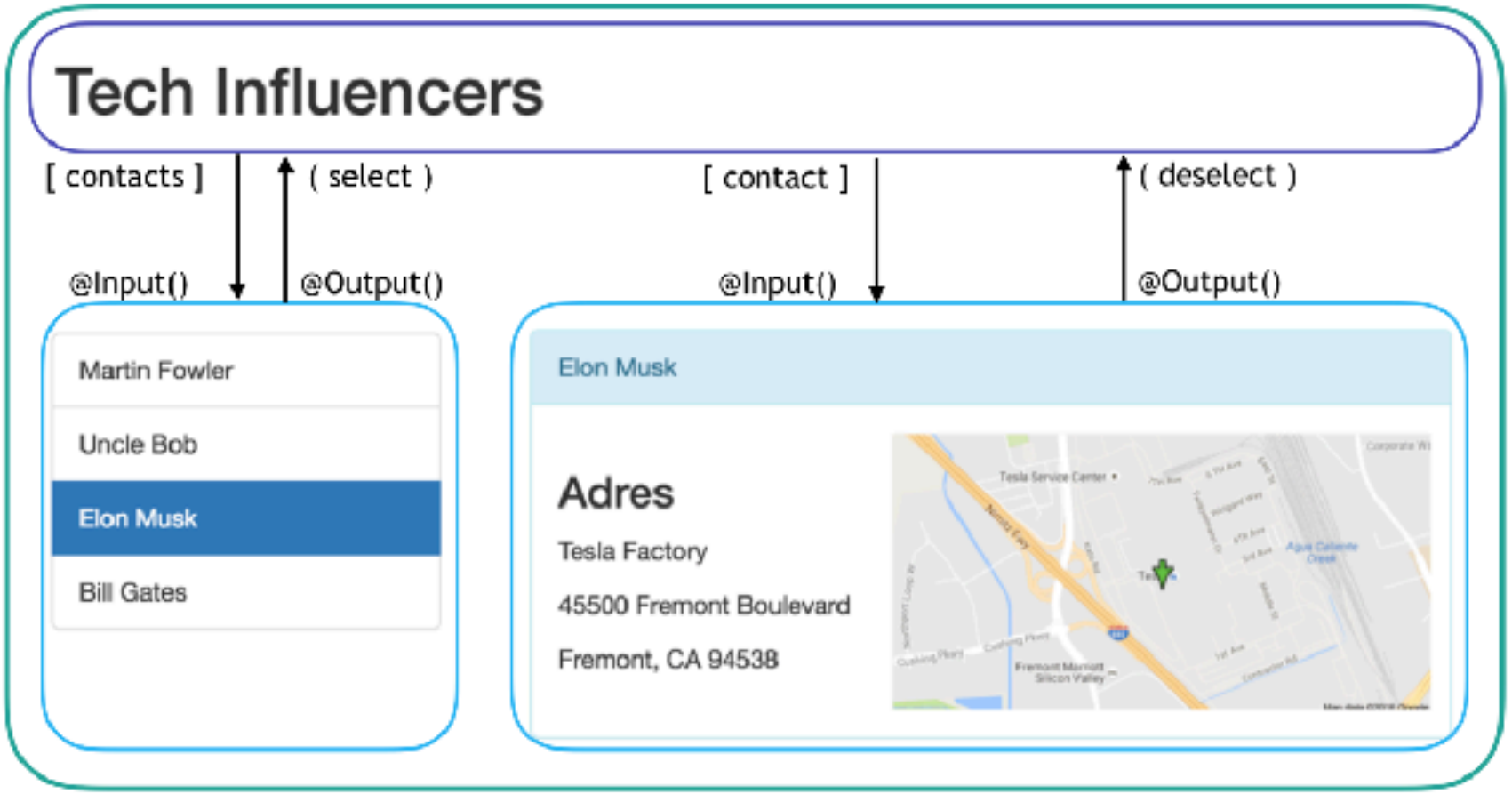
- Tree structure
- Parent / Child relation
- They are connected through the template



Component communication

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

Component communication



Tech Influencers

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

Elon Musk

Adres

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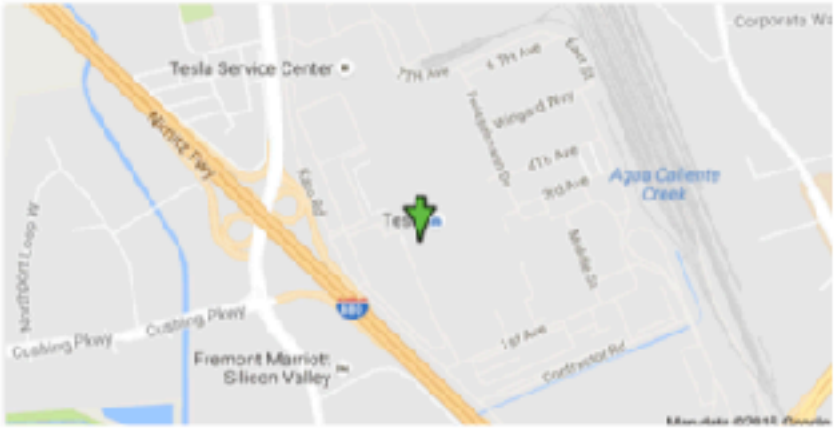
Fremont, CA 94538



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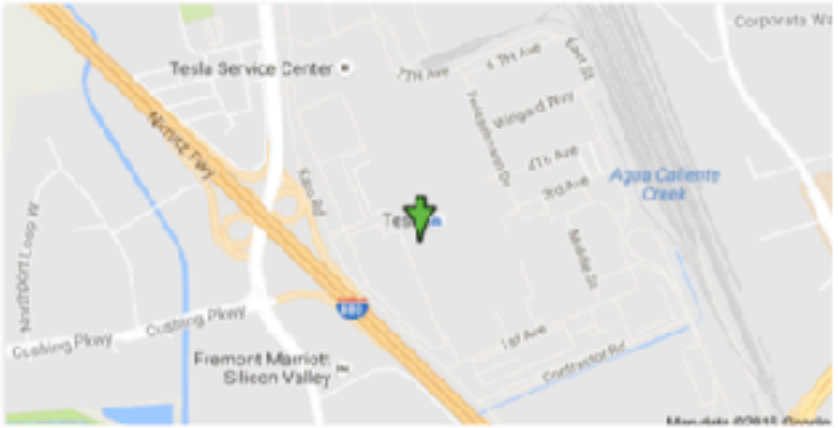
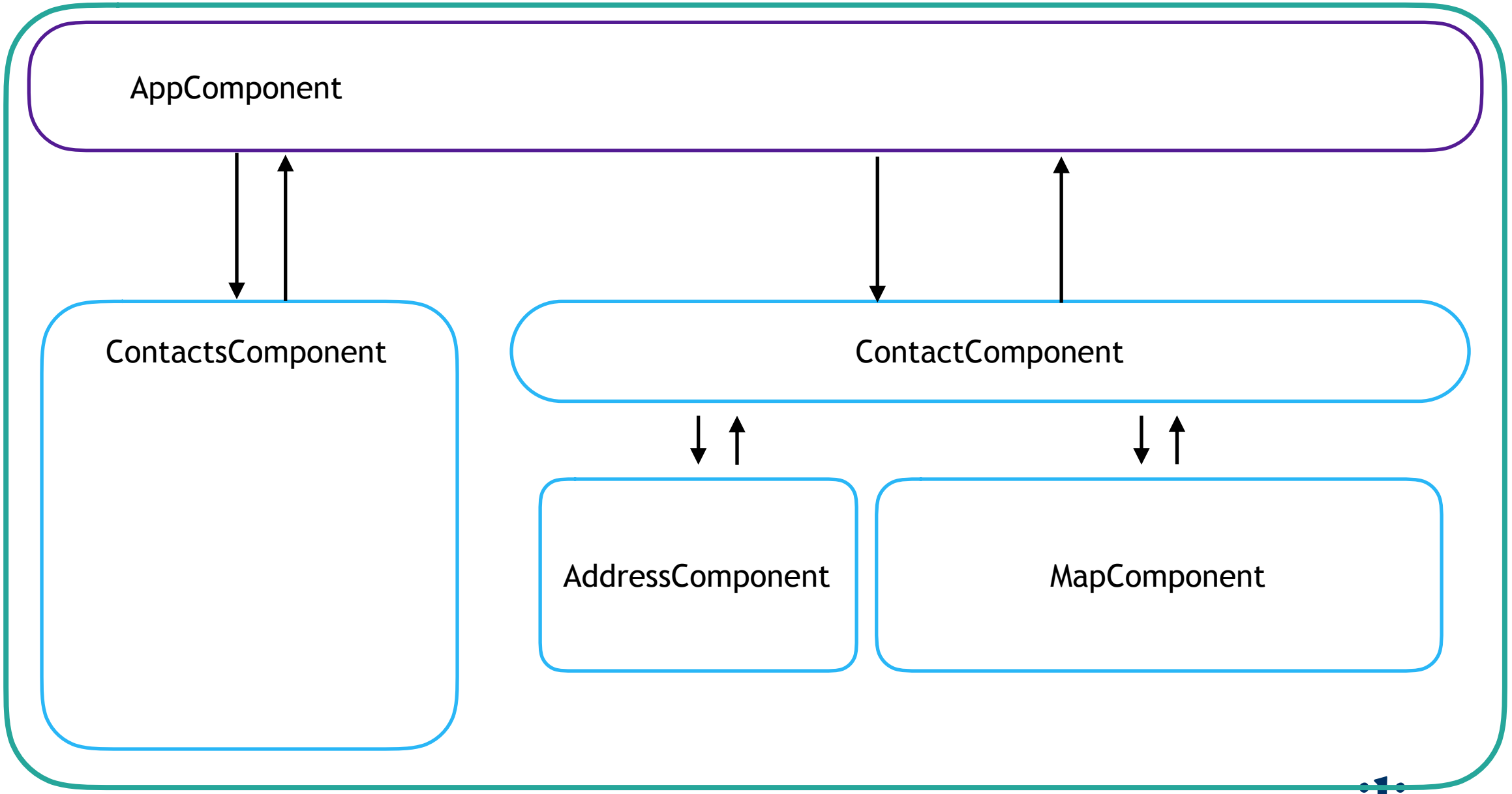
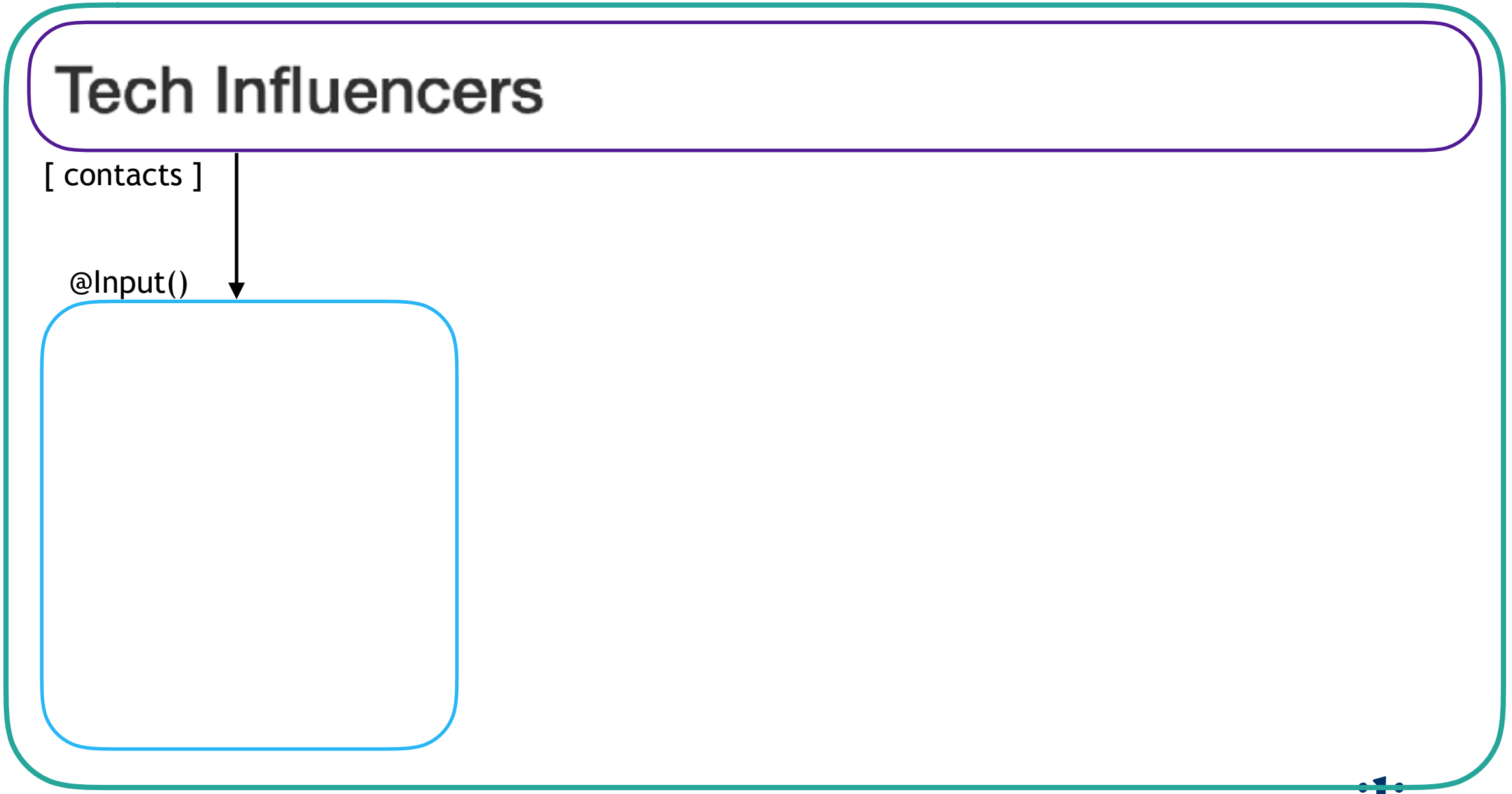


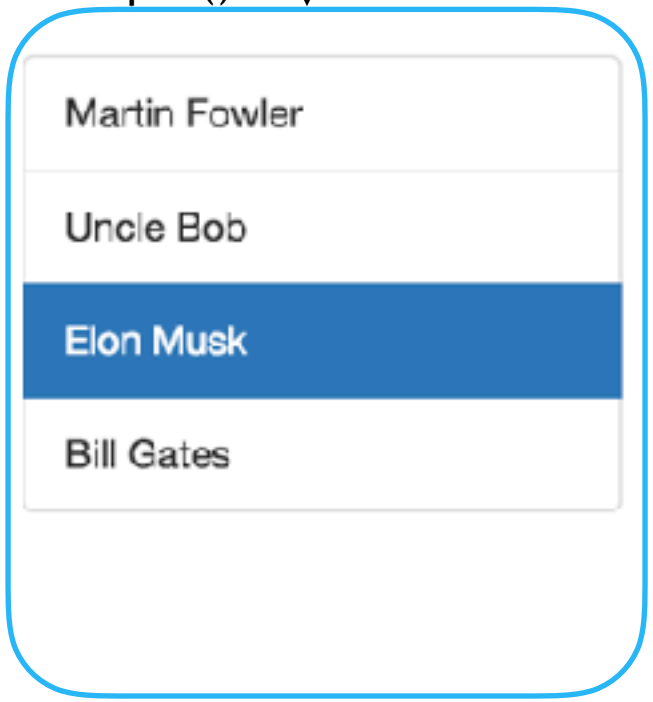




Tech Influencers

[contacts]

@Input()



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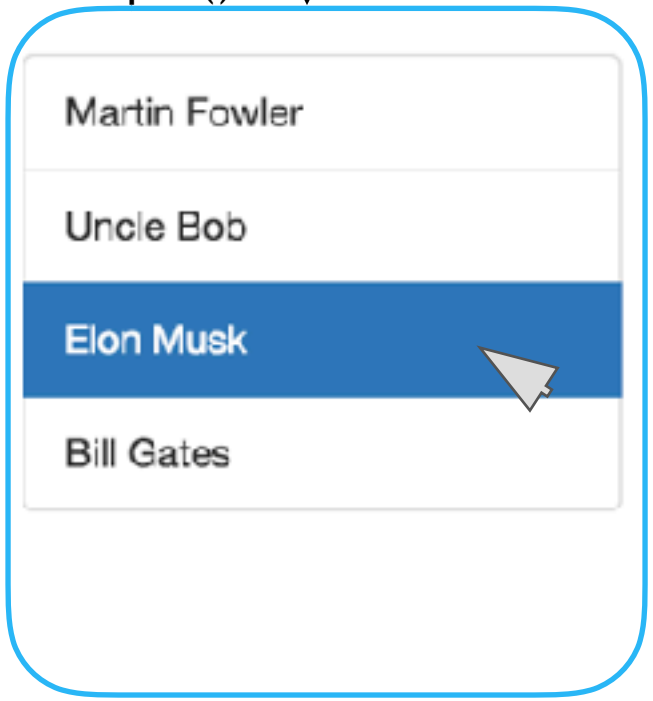
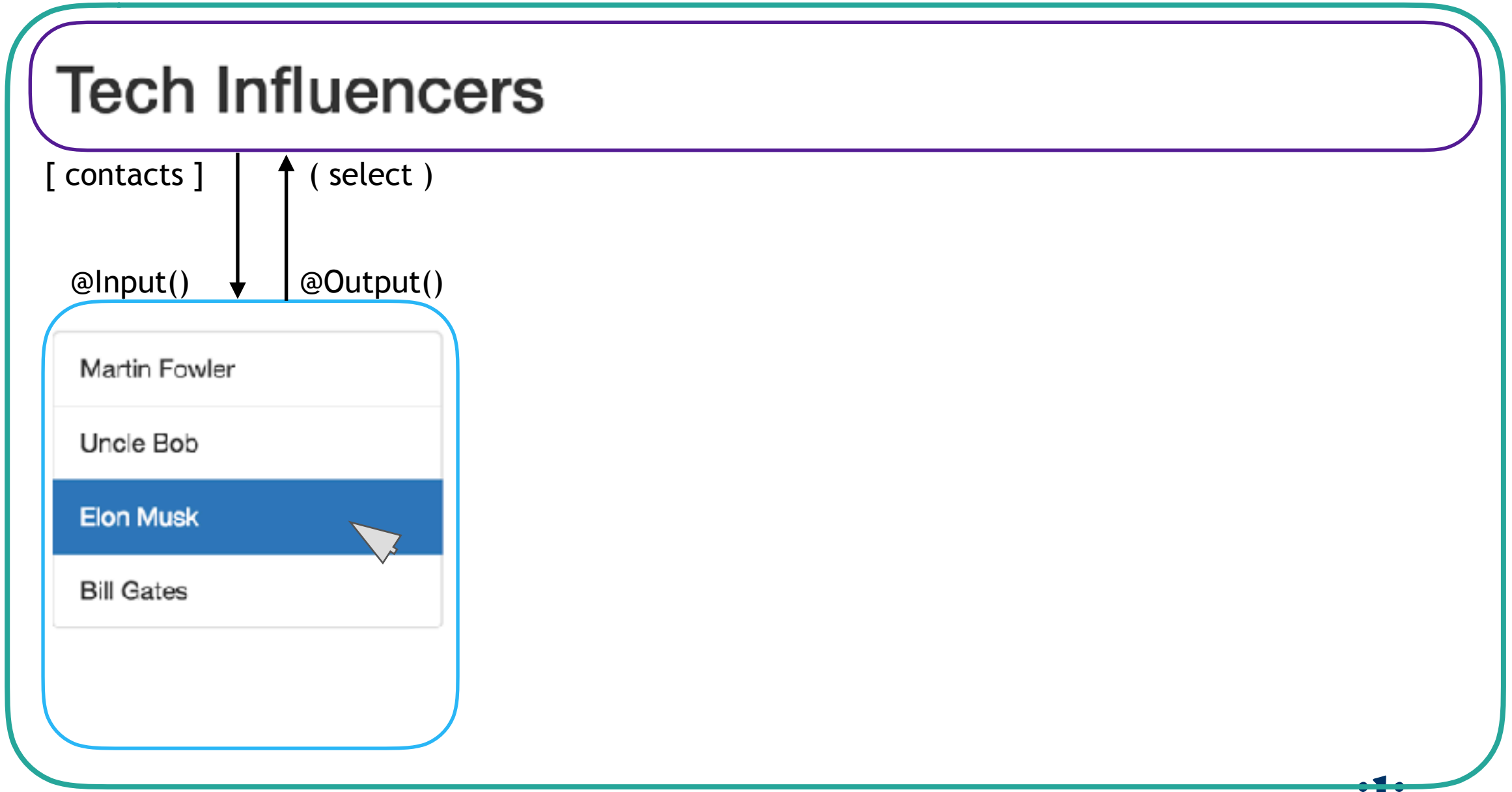
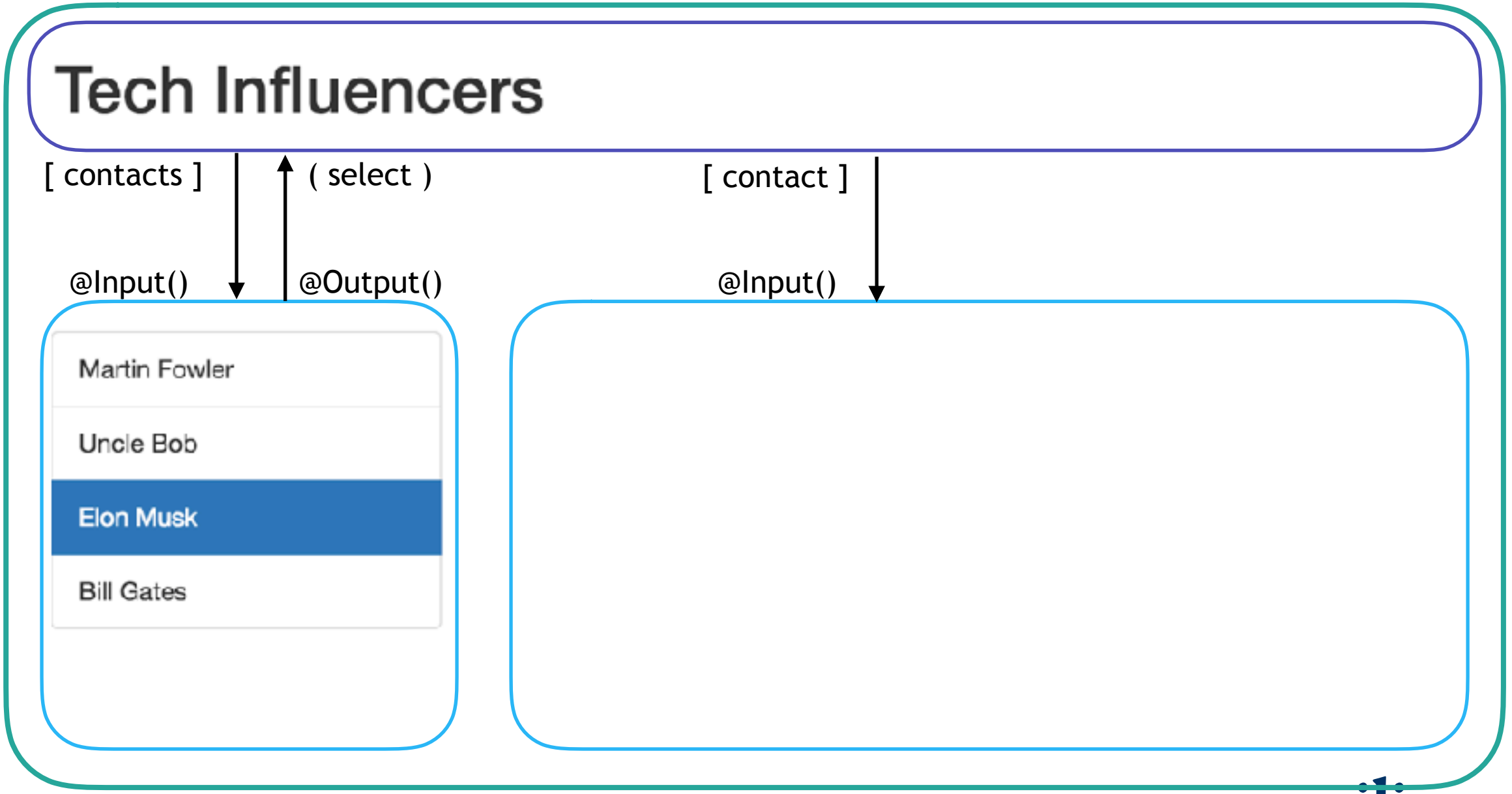
[contacts]

@Input()







Tech Influencers

[contacts]

(select)

@Input()

@Output()

[contact]

(deselect)

@Input()

@Output()

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- Uncle Bob
- Elon Musk
- Bill Gates

Elon Musk

Adres

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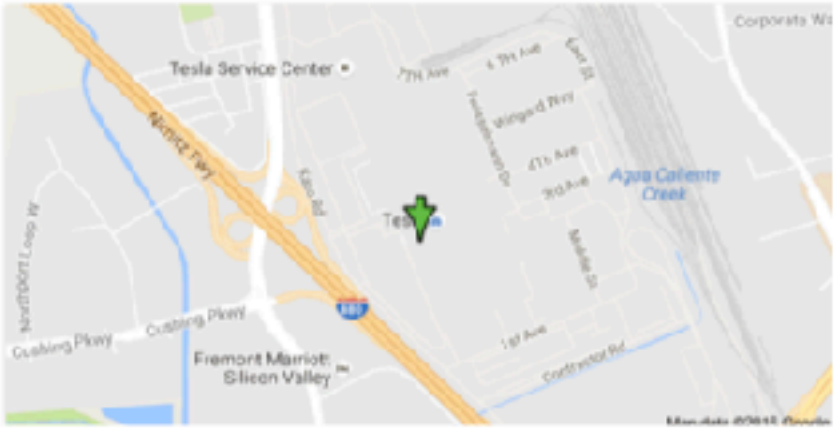

Component communication costs

- Architecture setup
- Feels over-engineered
- Different ways

Component communication benefits

- Testability
- Easier to make changes
- Flexible in use
- Uniformity

Template syntax - Demo