

Angular Architecture



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Overview



Components

Templates

Services

Dependency injection

Directives

Pipes

Modules

One-way data flow

Zone.js and change detection

Rendering targets





Components



Components

Display

HTML

CSS

Logic



Components

```
@Component({  
  selector: 'add-new-user',  
})
```

```
export class AddNewUserComponent {  
  ...  
}
```



Components - HTML

```
<div>
```

```
  <h1>Hello</h1>
```

```
  <add-new-user></add-new-user>
```

```
</div>
```





Templates



Templates in Components

```
@Component({  
  selector: 'add-new-user',  
  templateUrl: './add-new-user.component.html'  
})  
  
export class AddNewUserComponent {  
  ...  
}
```



Templates in-line in Components

```
@Component({  
  selector: 'add-new-user',  
  template: `

...  
  </div>`  
})  
  
export class AddNewUserComponent {  
  ...  
}


```



Templates

```
<div>
```

```
  {{ fullName }}
```

```
</div>
```



Templates

```
<ul>
```

```
<li *ngFor="let user of users">
```

```
{{ user.fullName }}
```

```
<button (click)="deleteUser(user)">
```

```
    Delete User
```

```
</button>
```

```
</li>
```

```
</ul>
```





Services



Services

```
@Injectable({
```

```
  ...
```

```
})
```

```
export class ArticleService {
```

```
  ...
```

```
}
```





Dependency Injection



Dependency Injection

```
export class AddNewStoryComponent {  
    constructor(private articleSvc: ArticleService) {}  
}
```





Directives



Directives

Element

Draggable

Appear on Hover

Etc...



Directives - HTML

```
<div hover-trigger>
```

Hover Over Me to See

```
</div>
```

```
<div appear-on-hover>
```

Some Content

```
</div>
```





Pipes




Pipes

```
<div>
```

```
  {{ title | uppercase }}
```

```
</div>
```

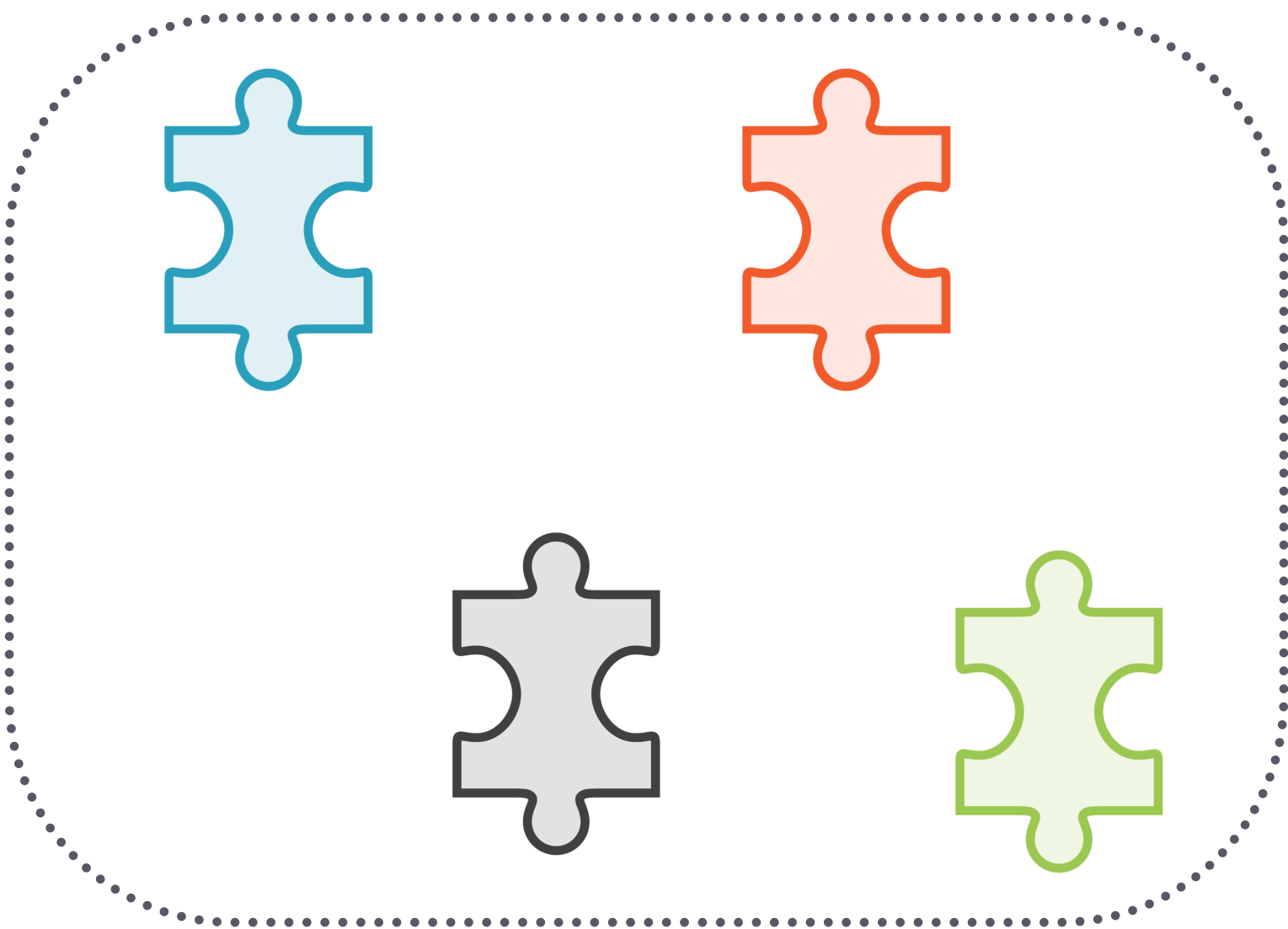




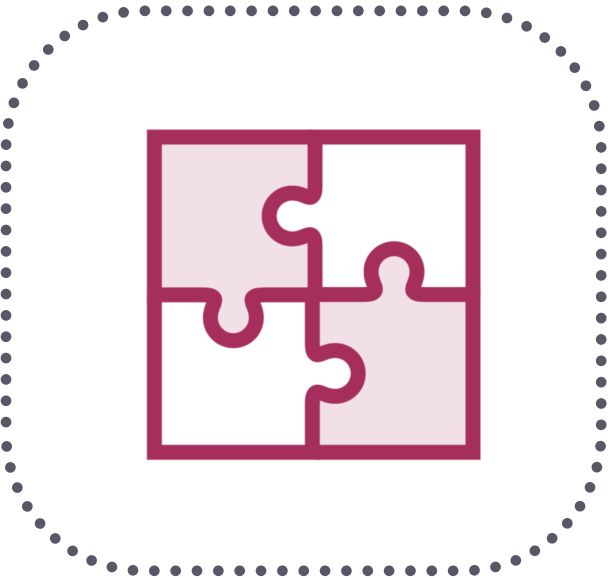
Modules



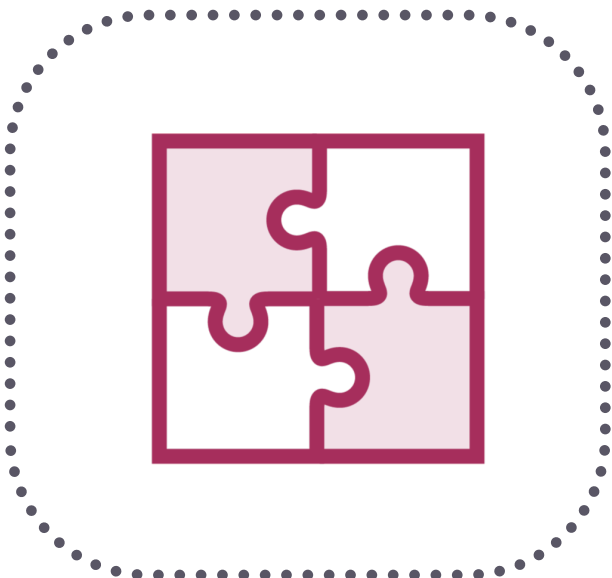
Modules



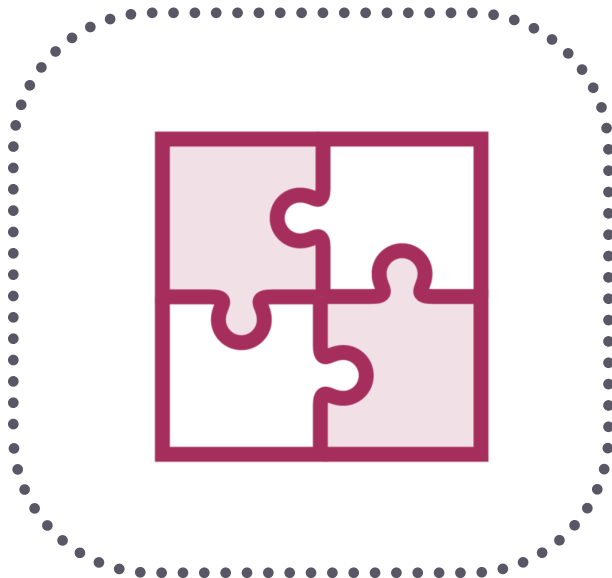
Admin



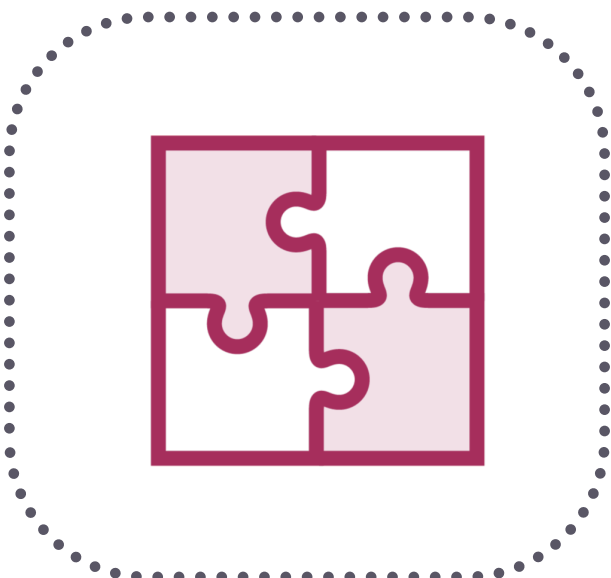
Users



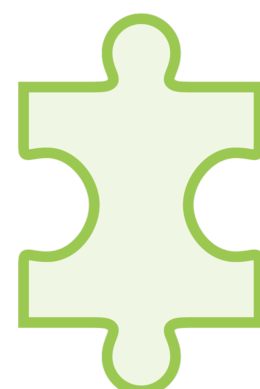
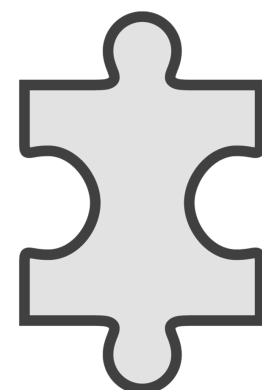
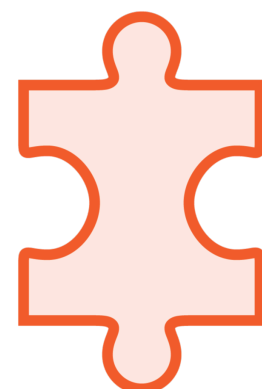
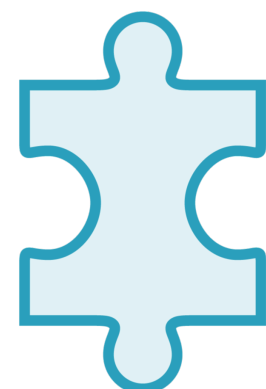
Inventory



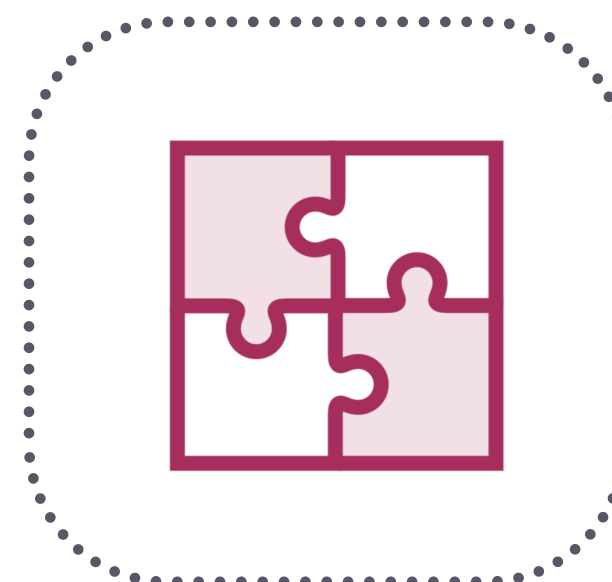
Pricing



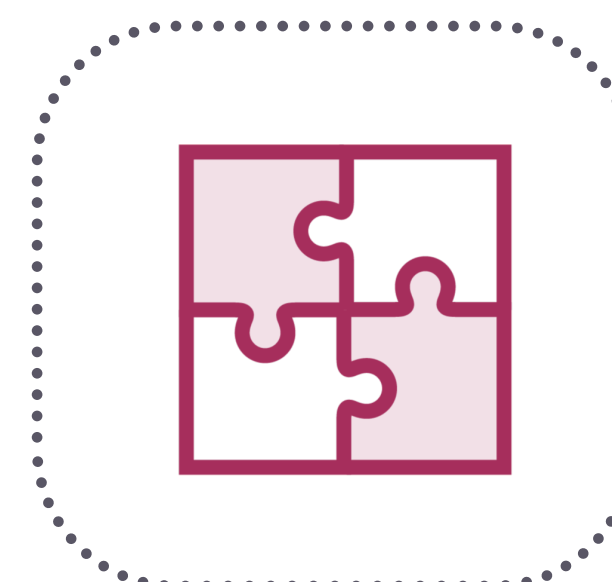
Optional Modules



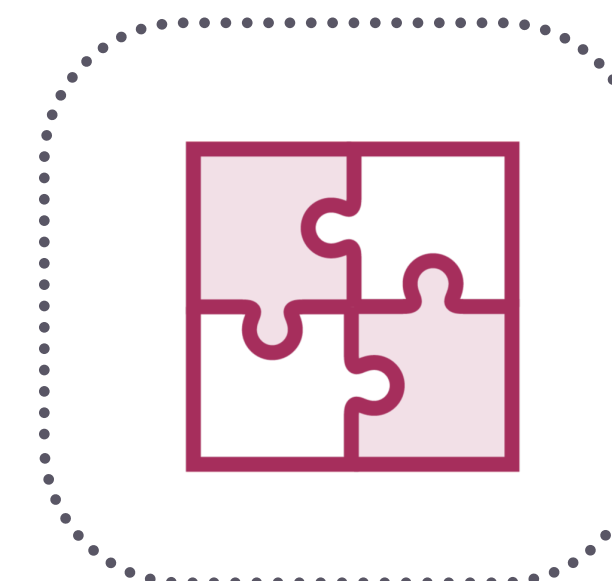
Admin



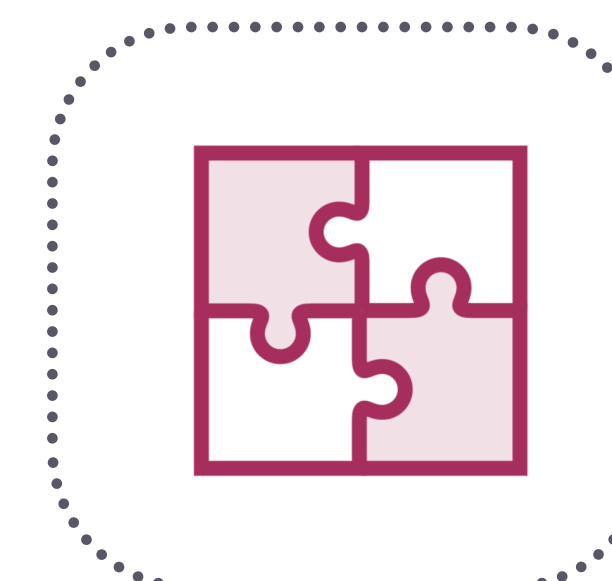
Users



Inventory



Pricing

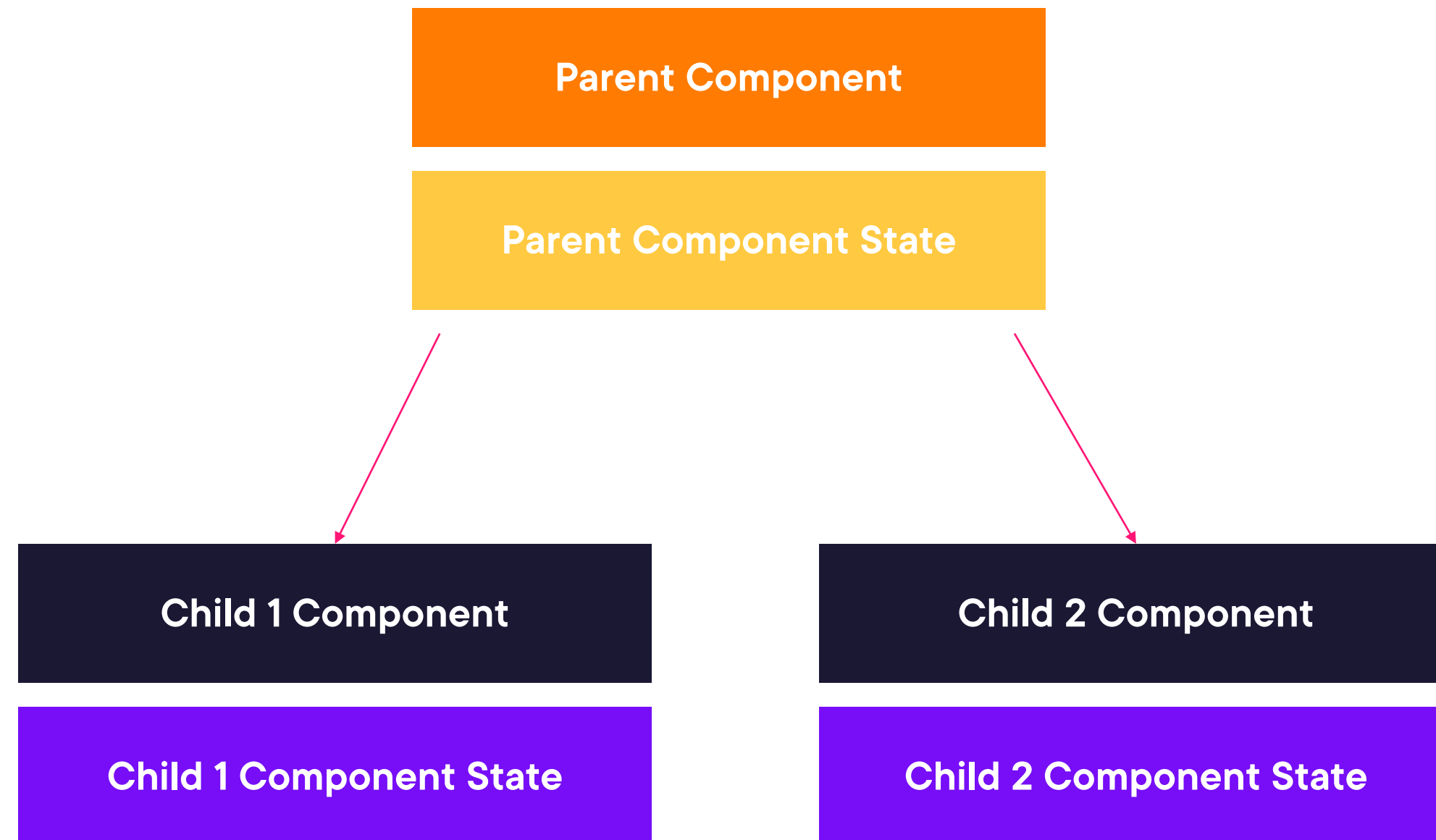




One Way Data Flow



One Way Data Flow



Zone.js and Change Detection





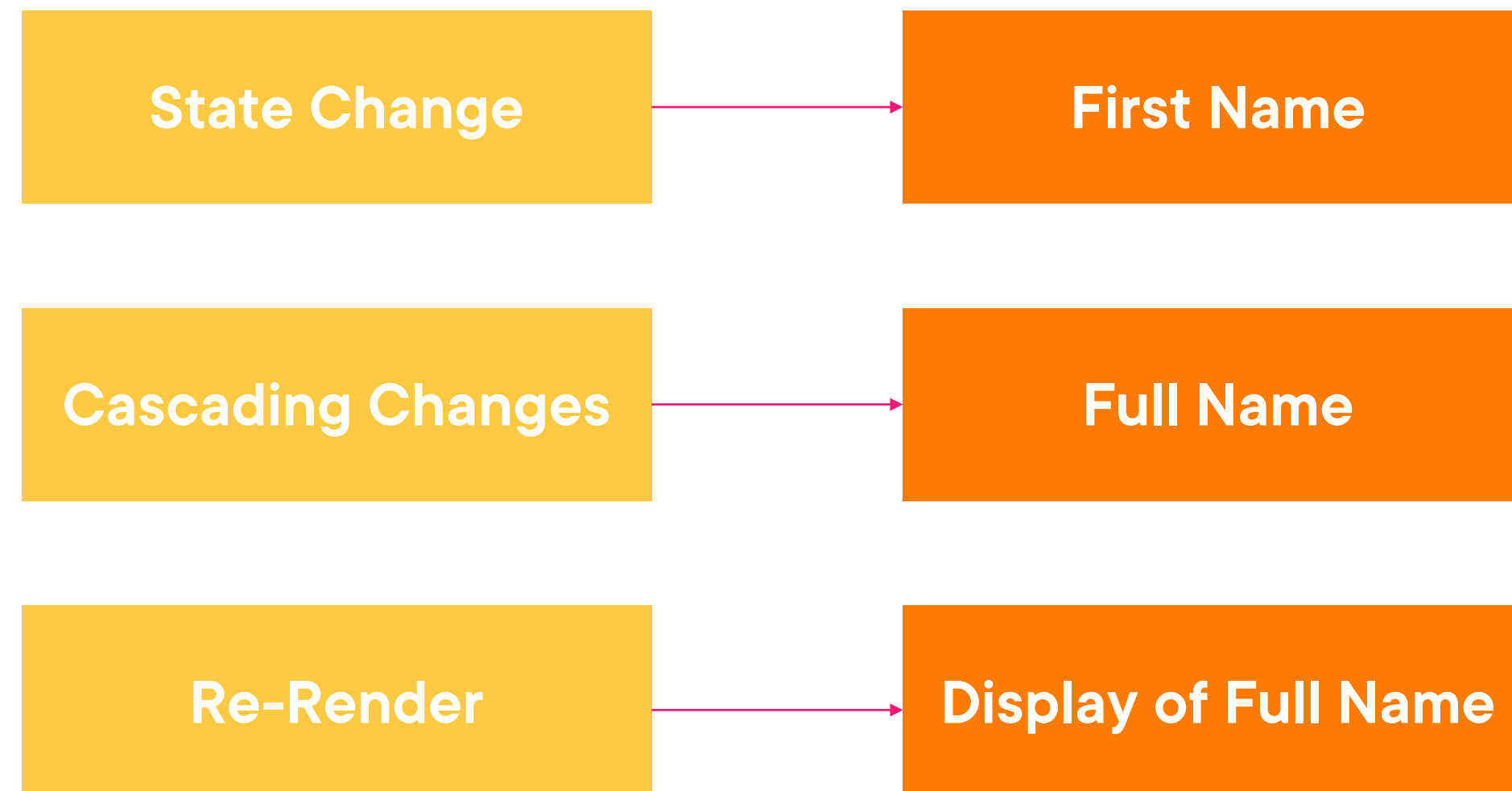
User interaction

HTTP

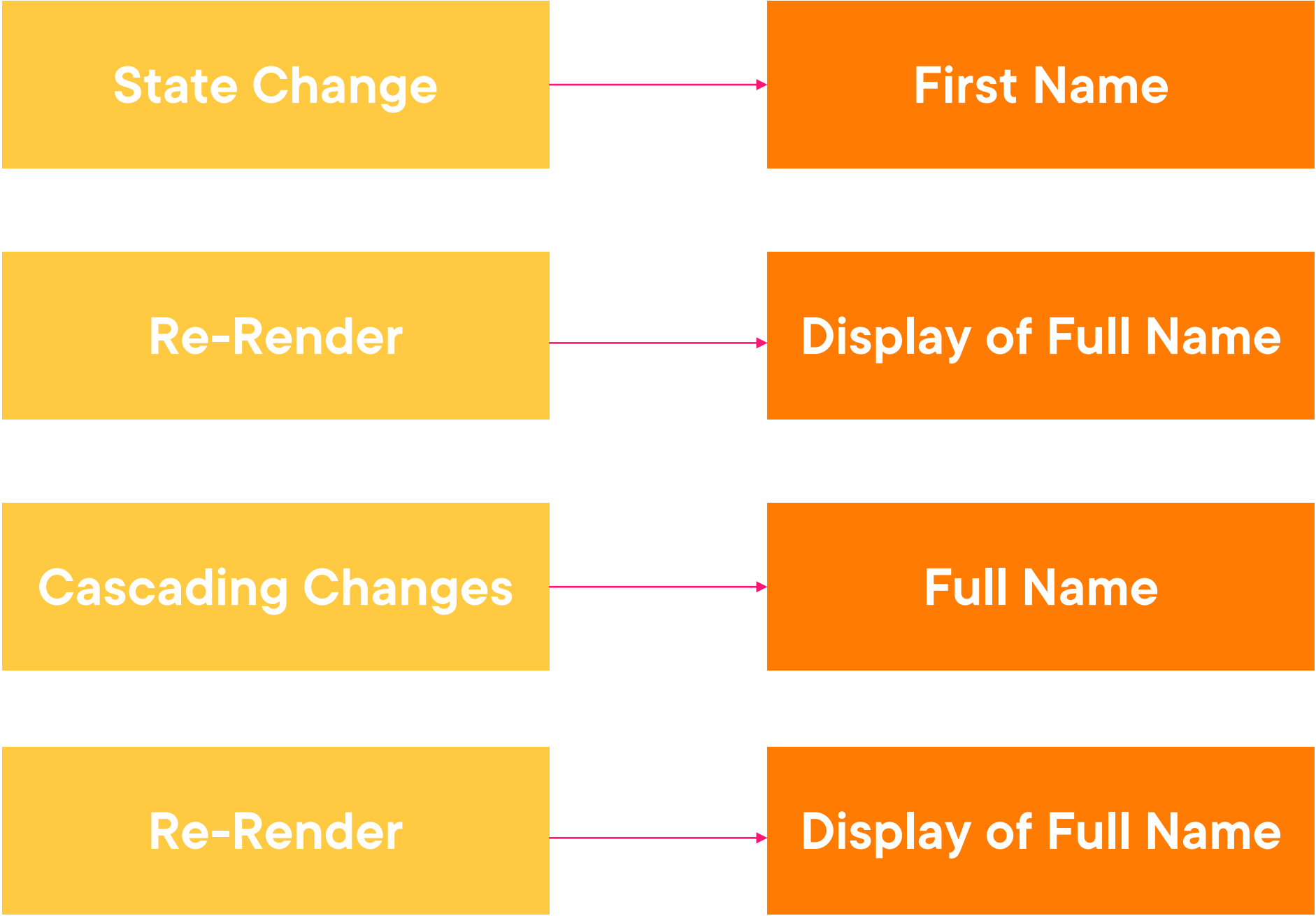
Timer



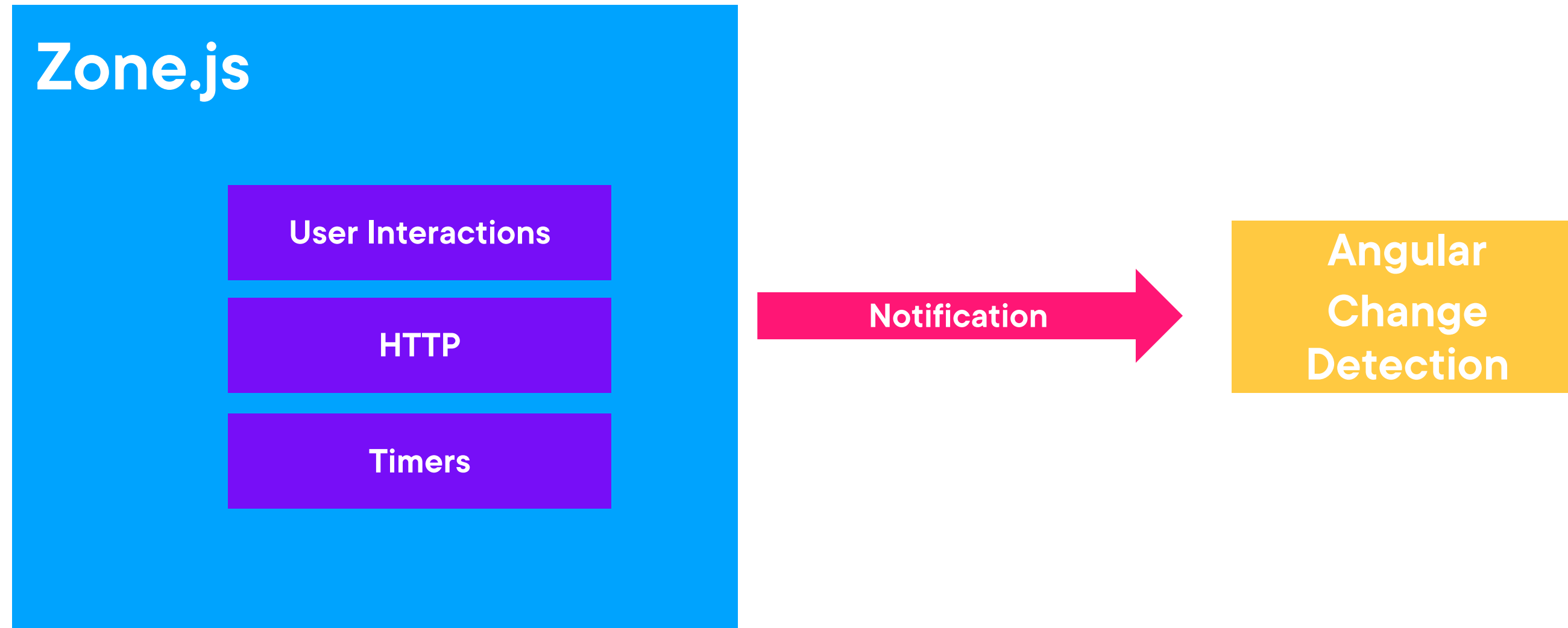
Change Detection



Inefficient Change Detection



Zone.js

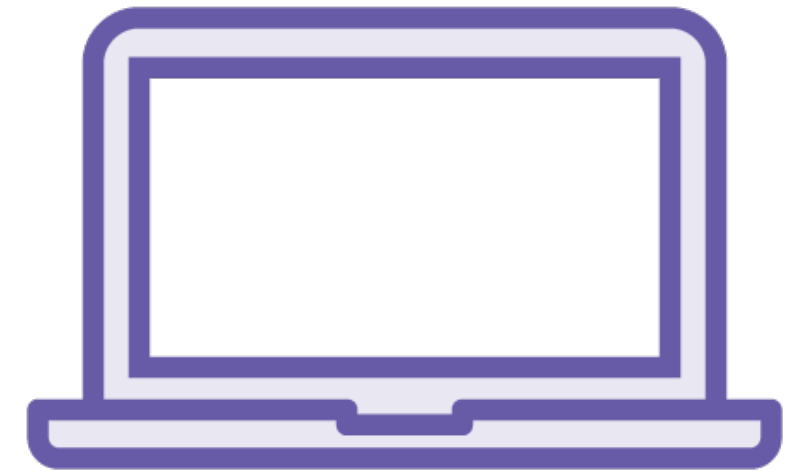
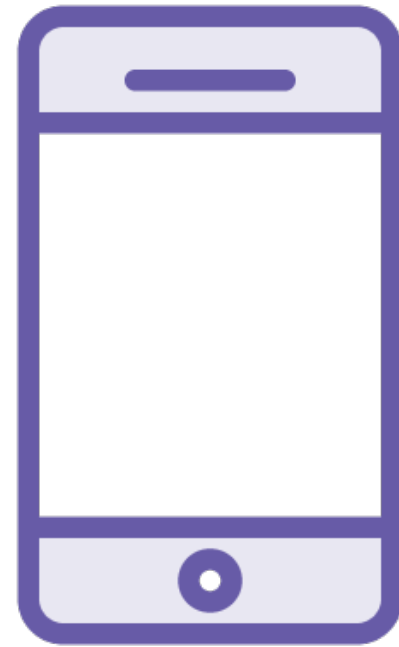


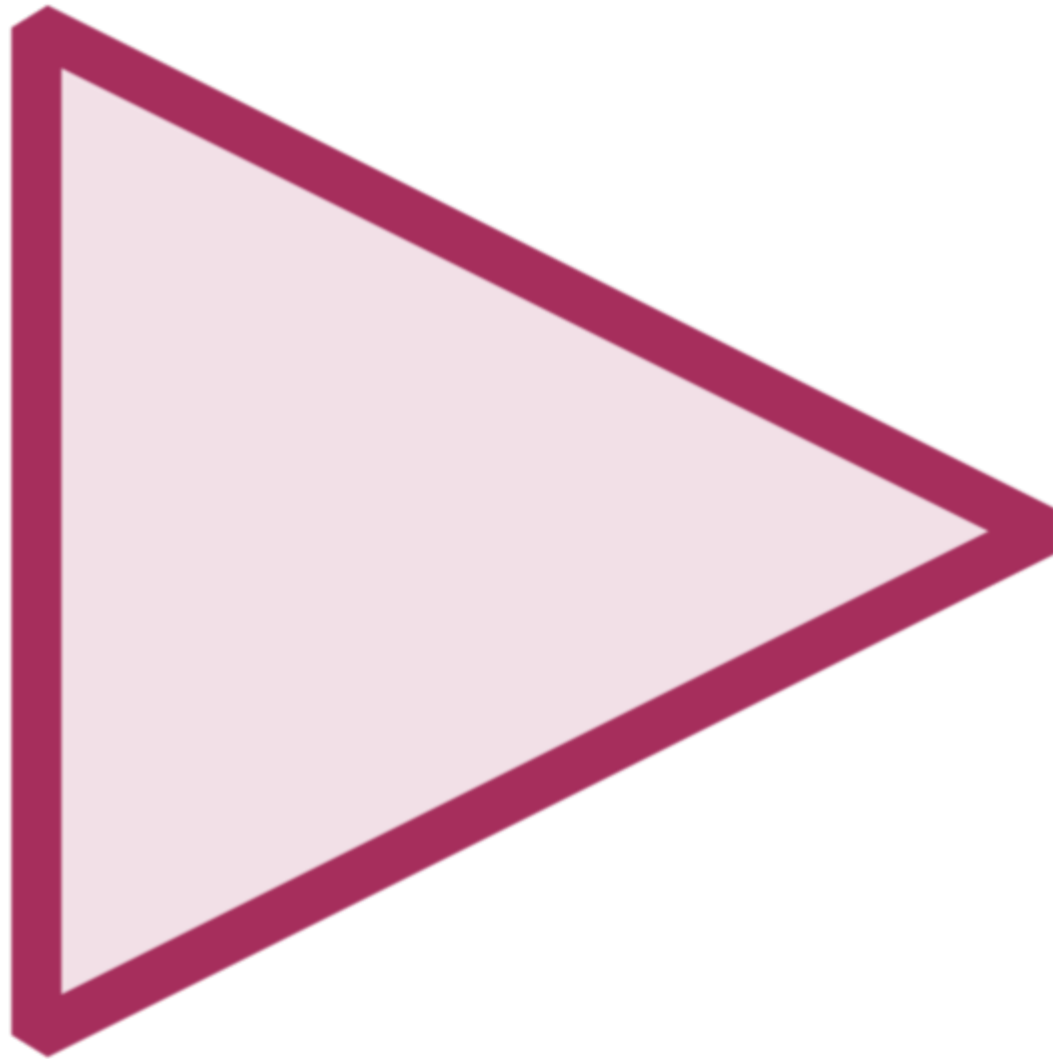


Rendering Targets



Rendering Needs





Browser-platform

Browser-platform-dynamic

Rendering Targets

- Browser/DOM
- Server-Side
- Native Mobile Apps
- Native Desktop Apps



Summary



Faster

Dependency injection

Zone.js

Multiple rendering targets

