## Tips, Tricks, and Gotchas

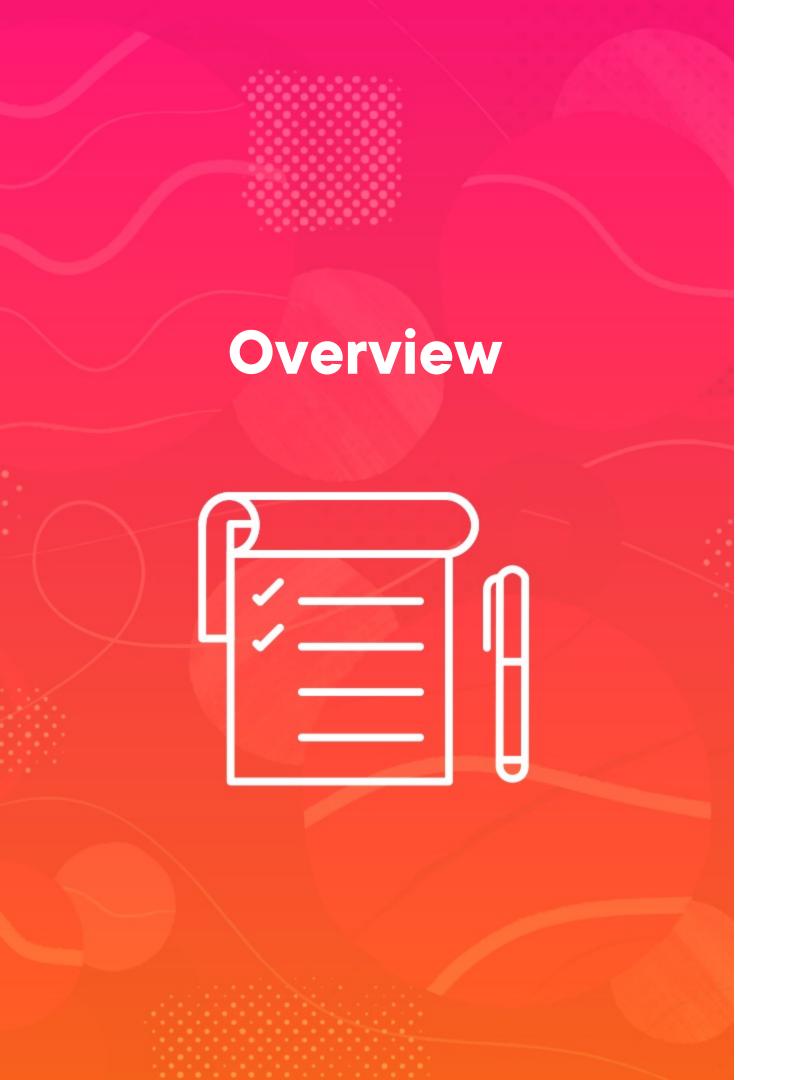


Joe Eames

Google Developer Expert

@josepheames | joeeames.me





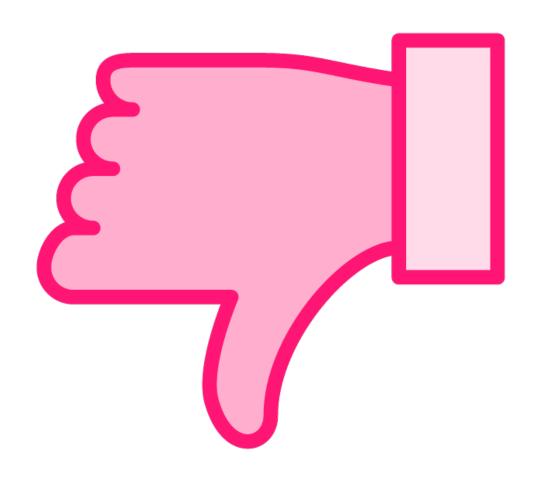
Gotchas

Tips and tricks



### Gotchas





Confusing
Difficult to learn

Complex



## TypeScript and Decorators

Decorators are a new type of syntax



#### Decorators

@Decorator(parameters...)



### TypeScript and Decorators

Decorators are a new type of syntax

TypeScript has its own learning curve



#### **TypeScript**

constructor(private articleSvc: ArticleService)



#### **Custom Pipes**

#### Pure vs. impure

- Pure: only evaluated when input changes
- Impure: evaluated on every change detection cycle

Pure are simple, impure are very complex

#### **Module API**

**imports** 

**exports** 

bootstrap

providers

declarations

more...



#### **Module API**

```
@NgModule({
    declarations: [ AppComponent, HomeComponent ],
    imports: [ BrowserModule ],
    providers: [ Auth ],
    bootstrap: [AppComponent]
})
```



#### **Multiple Modules**

**Feature areas** 

Lazy loading

#### **Difficulties**

- Routing
- Importing and exporting

**Build** 

Complex

**Important** 

**Affects performance** 



## Accessing the DOM

#### Wrapper

- Hides complexity
- Improves performance

Difficult to get to the DOM



RxJS

Promises vs. observables

Self-subscribe or not

Forgetting to subscribe

Accidentally making multiple HTTP requests

Hot vs. cold observables

**Shared observables** 



### Tips and Tricks



Tips

Part 1

Learn and use the CLI

Learn and use TypeScript

Learn and use NgRx

**Learn Webpack** 

Follow the style guide

Don't access the DOM



# Tips Part 2

Use signals

Use lazy loading

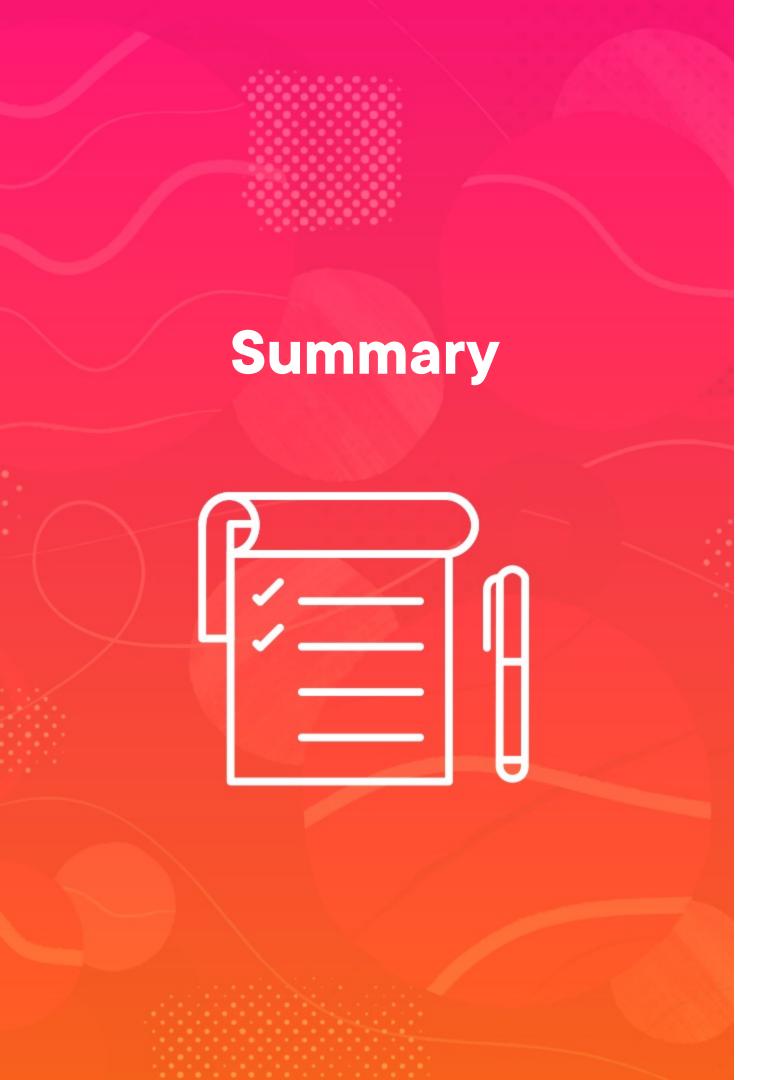
**Use VS Code** 

Understand what you're sending to the browser

Use immutable or observable data where appropriate

Write unit and end-to-end tests





**Build is important** 

TypeScript, NgRx, Signals, Webpack

