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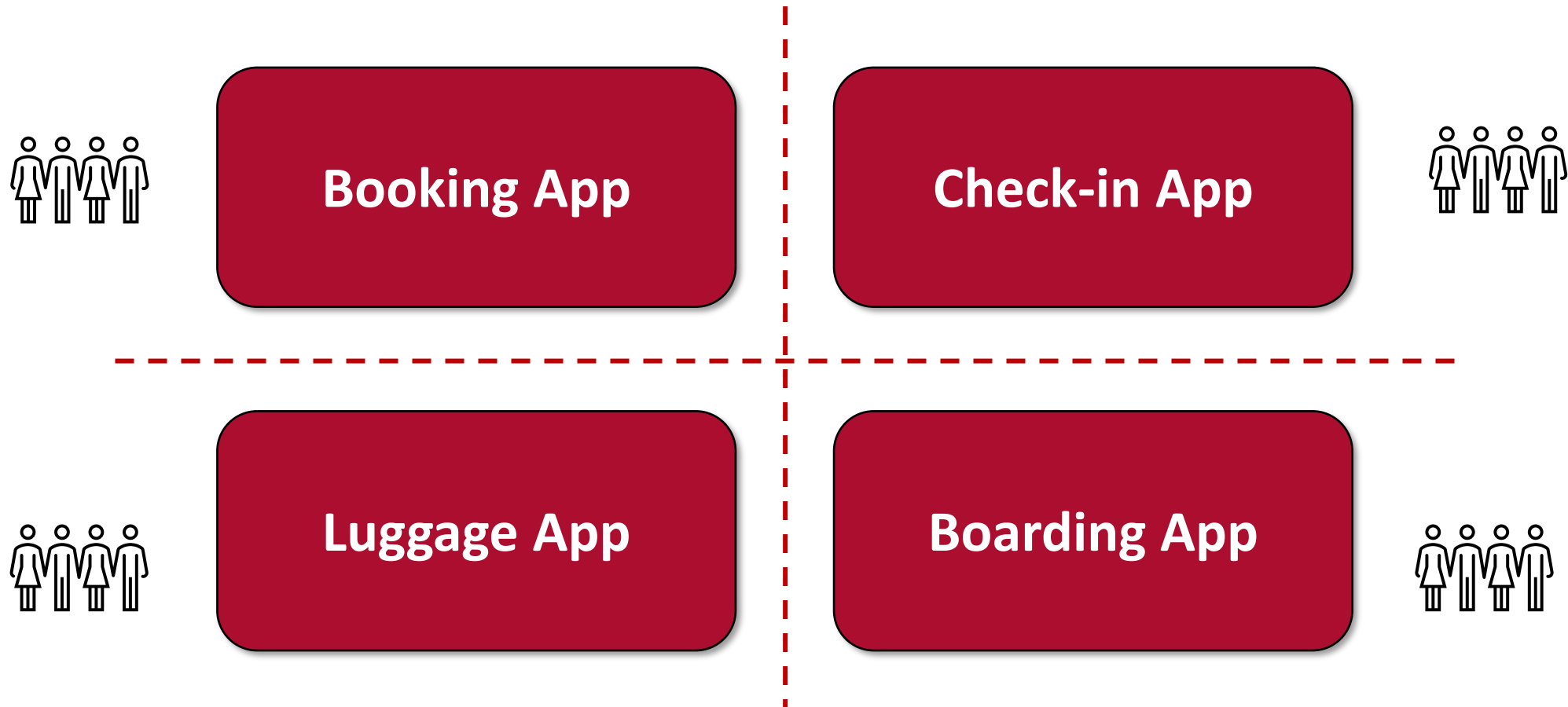
Angular-based Micro Frontends with Module Federation

Manfred Steyer, [ANGULARarchitects.io](https://angulararchitects.io)



ManfredSteyer

Micro Frontends



Micro Frontends
are first and foremost
about **scaling teams!**



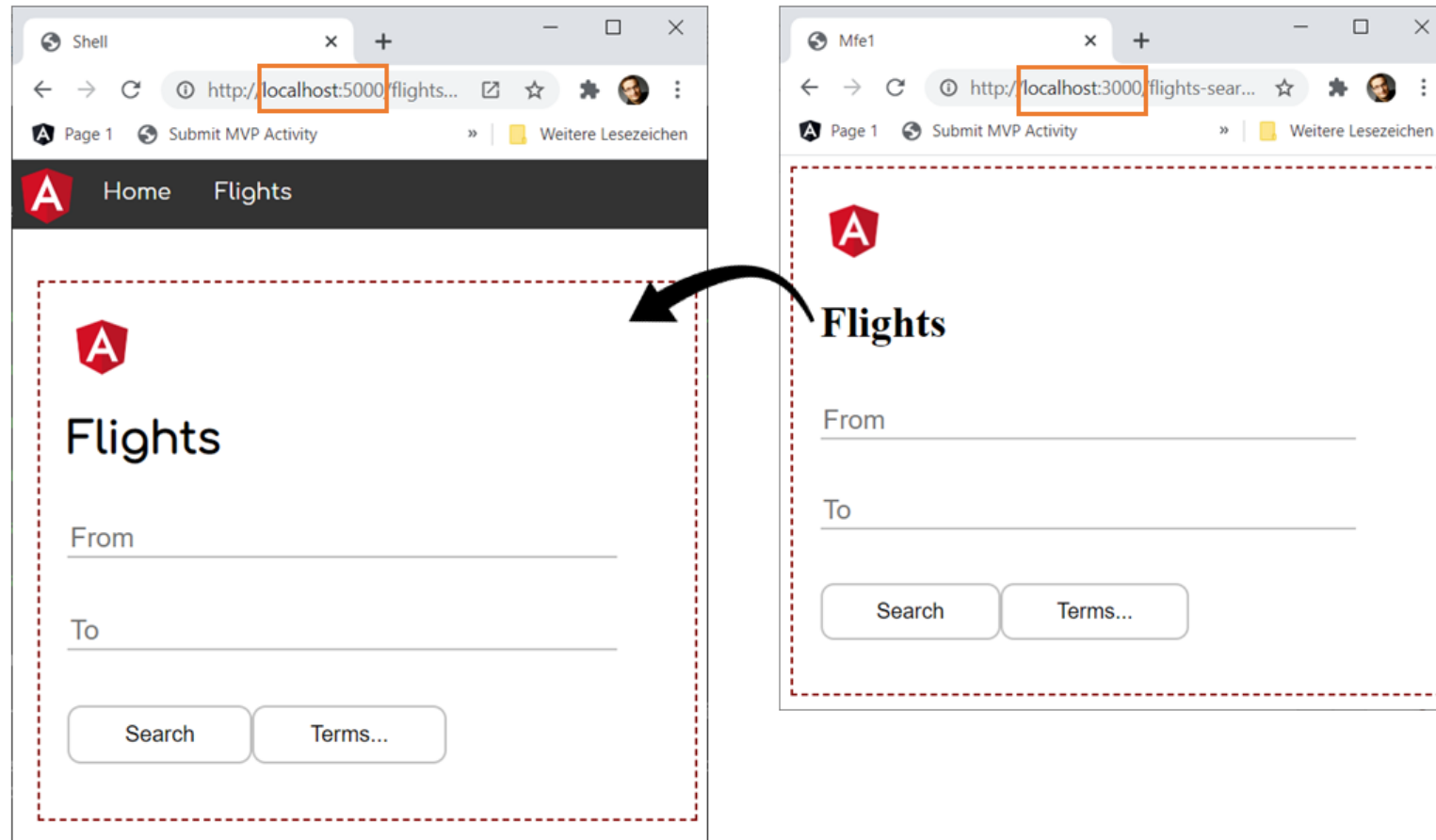
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However, your Customer
is **not interested** into
Micro Frontends

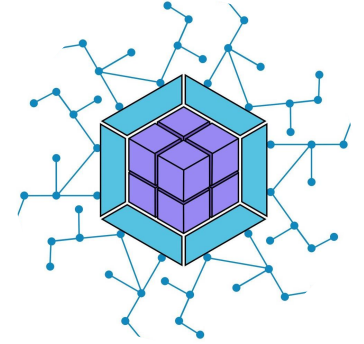


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Runtime Integration



Webpack 5: Module Federation



```
const Component = await import('other-app/cmp');
```

Agenda

#1

Static & Dynamic
Federation

#2

Sharing
Libs & Data

#3

Combining
Frameworks

About me...



Manfred Steyer

Manfred Steyer, **ANGULAR**architects.io



(Remote) Angular Workshops
and Consulting

<http://angulararchitects.io>



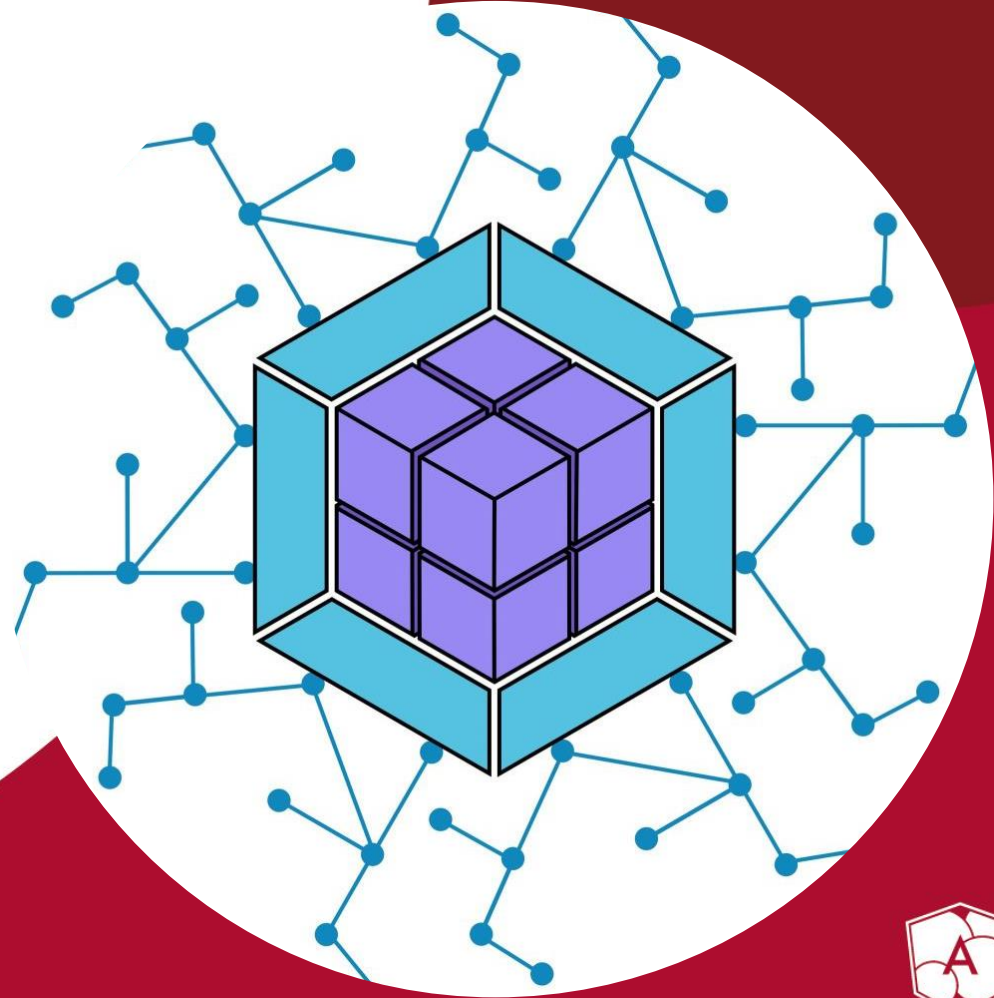
Google Developer Expert
for Angular



Trusted Collaborator
in the Angular Team



#1: Static & Dynamic Federation



Static Federation

Shell (Host)

```
import('mfe1/Cmp')
```

```
// Maps Urls in  
// webpack config
```

```
remotes: {  
  mfe1: "http://..."  
}
```

Microfrontend (Remote)

```
// Expose files in  
// webpack config
```

```
exposes: {  
  './Cmp': './my.cmp.ts'  
}
```

Dynamic Federation

Shell (Host)

```
import('mfe1/Cmp')
```

```
remotes: {  
}
```

Microfrontend (Remote)

```
exposes: {  
  Cmp: './my.cmp.ts'  
}
```

Dynamic Federation

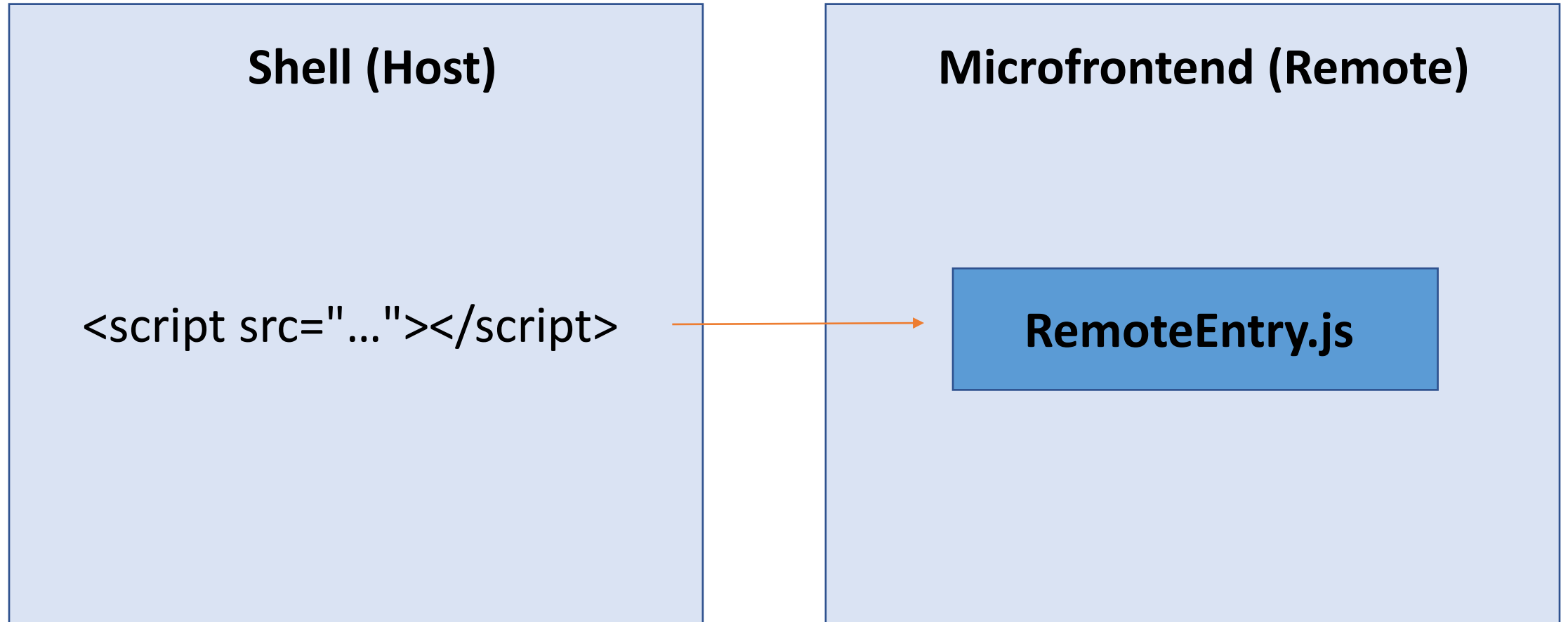
Shell (Host)

```
loadRemoteModule({  
  type: 'module',  
  remoteEntry: 'http://...',  
  exposedModule: './Cmp'  
})  
  
remotes: {  
}
```

Microfrontend (Remote)

```
exposes: {  
  Cmp: './my.cmp.ts'  
}
```

How to Get the Microfrontend's URL?



How to Share Libs?

Shell (Host)

```
shared: [  
  "@angular/core", "..."  
]
```

Microfrontend (Remote)

```
shared: [  
  "@angular/core", "..."  
]
```


Using With the Angular CLI

- 1) `ng add @angular-architects/module-federation`
- 2) Adjust generated configuration
- 3) `ng serve`

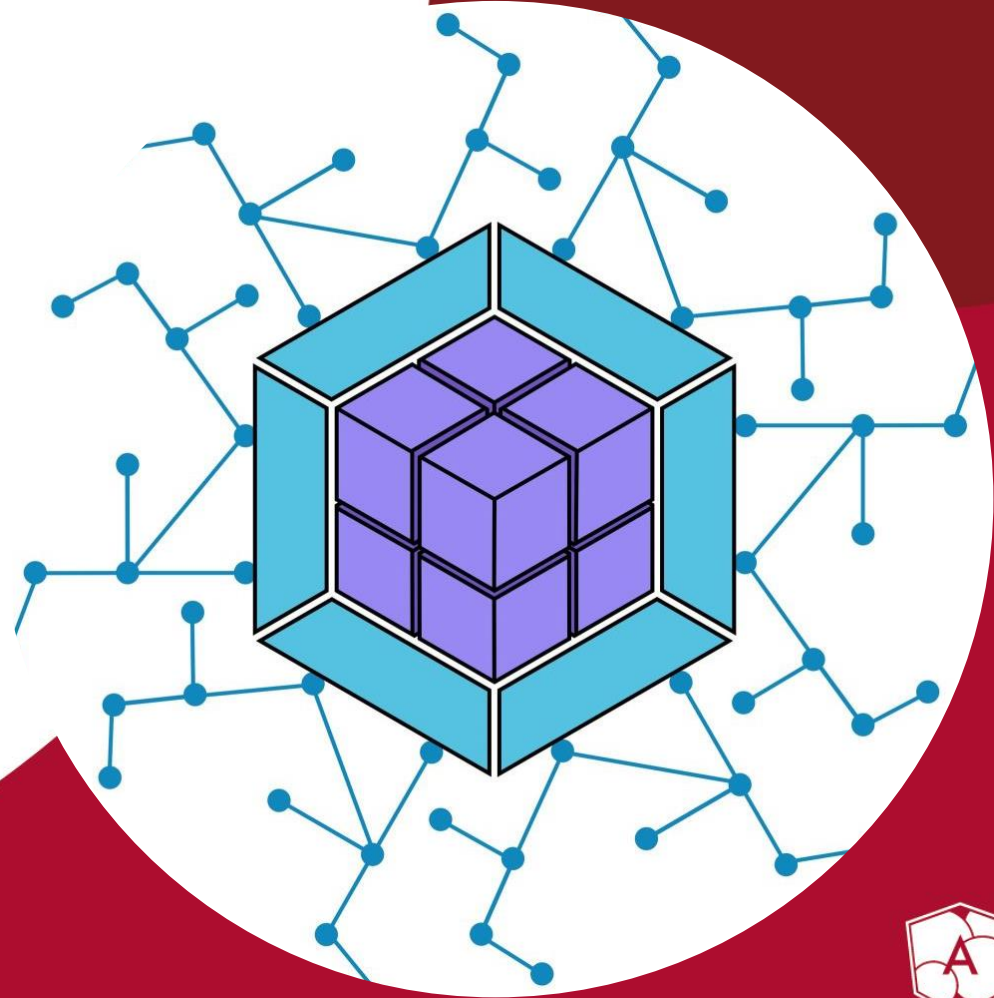
DEMO



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#2:

Sharing Libs & Data



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#3:

Combining Frameworks



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Caution Workarounds ahead ...



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Abstracting Differences b/w SPA Frameworks

Wrap them into Web Components

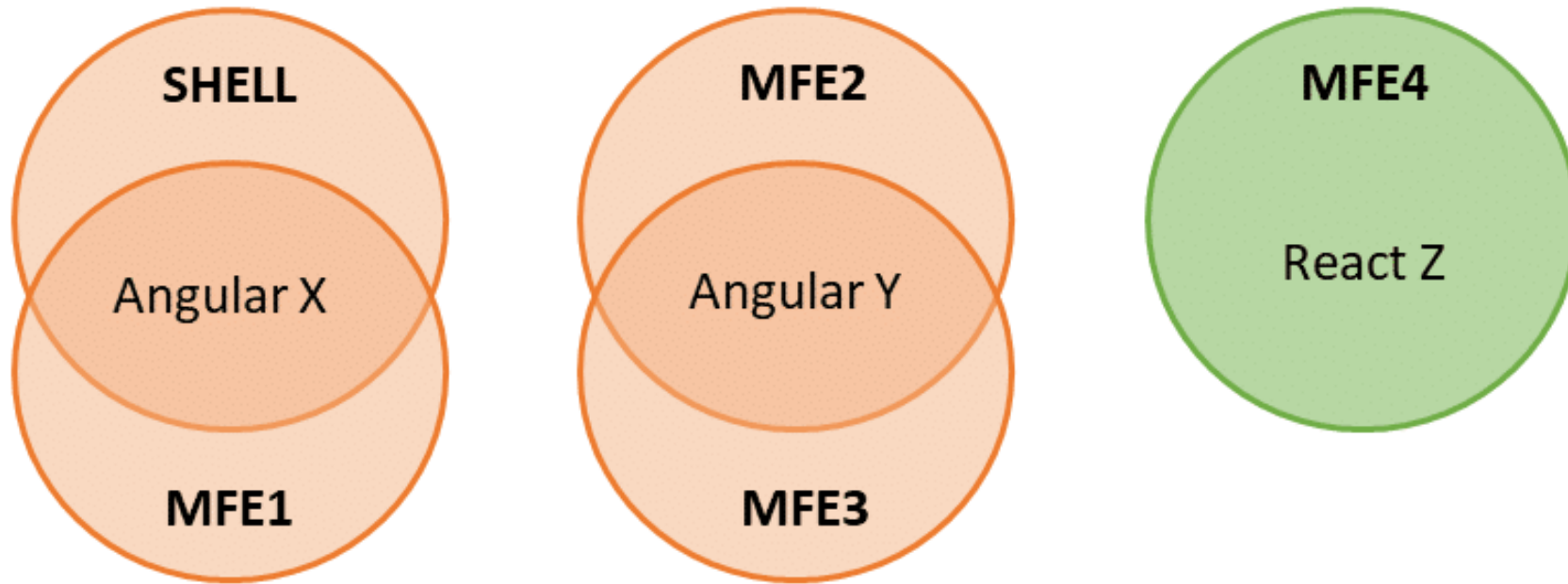


Routing to Another SPA?

WrapperComponent

```
const rootElm = document.createElement('my-cmp')  
document.body.appendChild(rootElm);  
  
await import('other-app/my-cmp');
```

Result



DEMO



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LAB

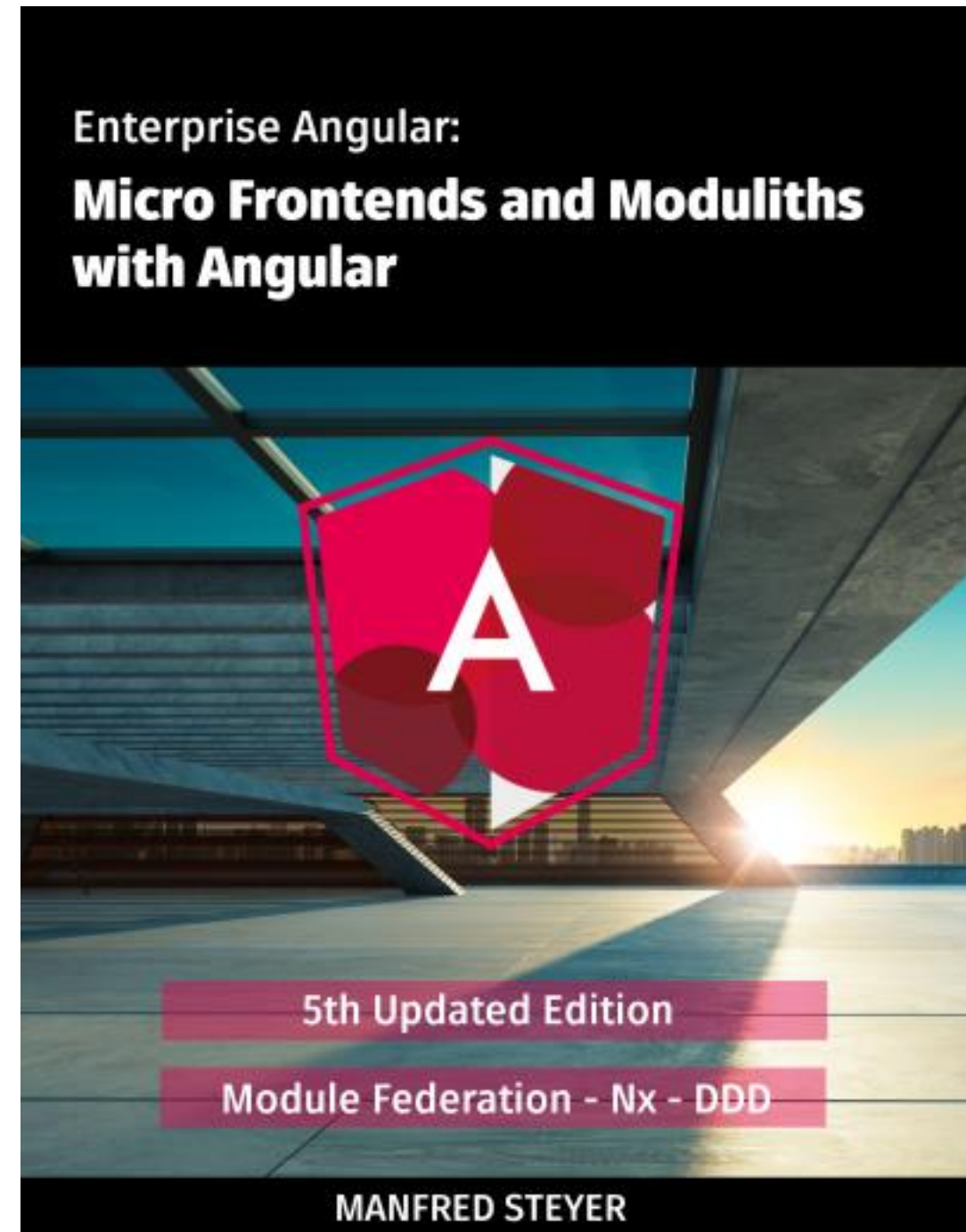


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Free eBook (5th Edition)

Module Federation & Nx

ANGULARarchitects.io/book



Contact and Downloads

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Slides & Examples



Remote Company Workshops
and Consulting