



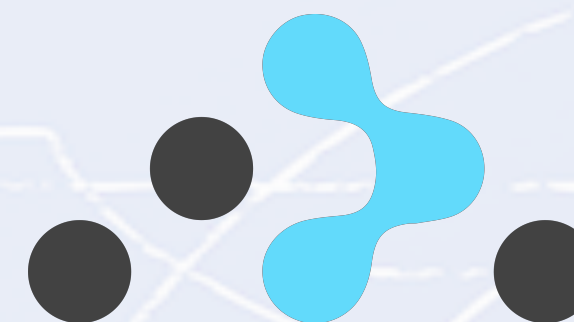
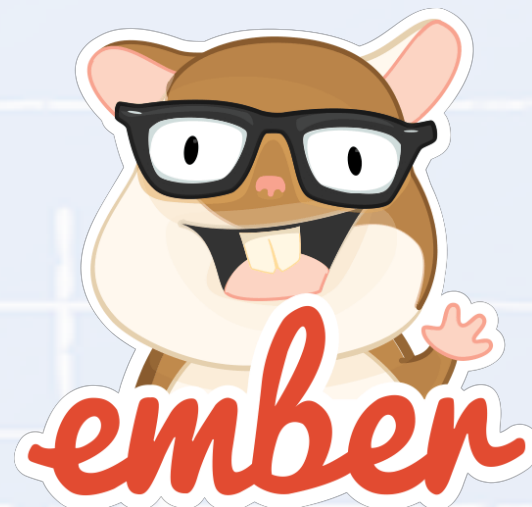
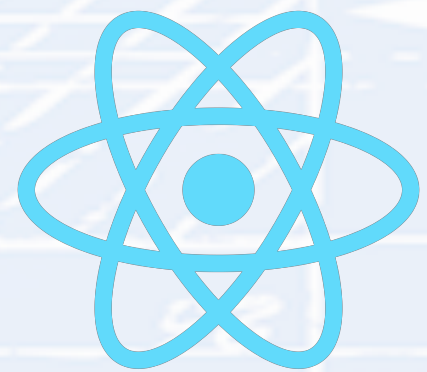
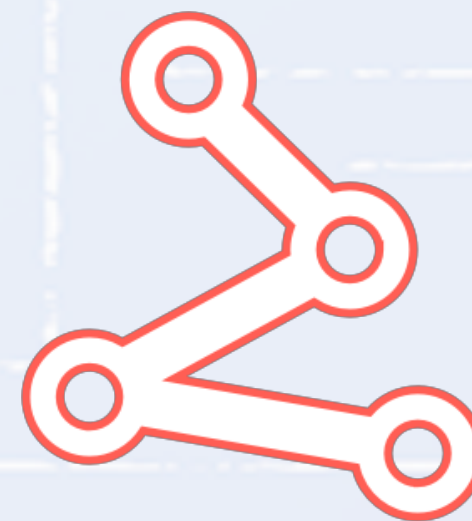
DESTROY ALL BOILERPLATE

Jump start your app with **Angular Schematics**



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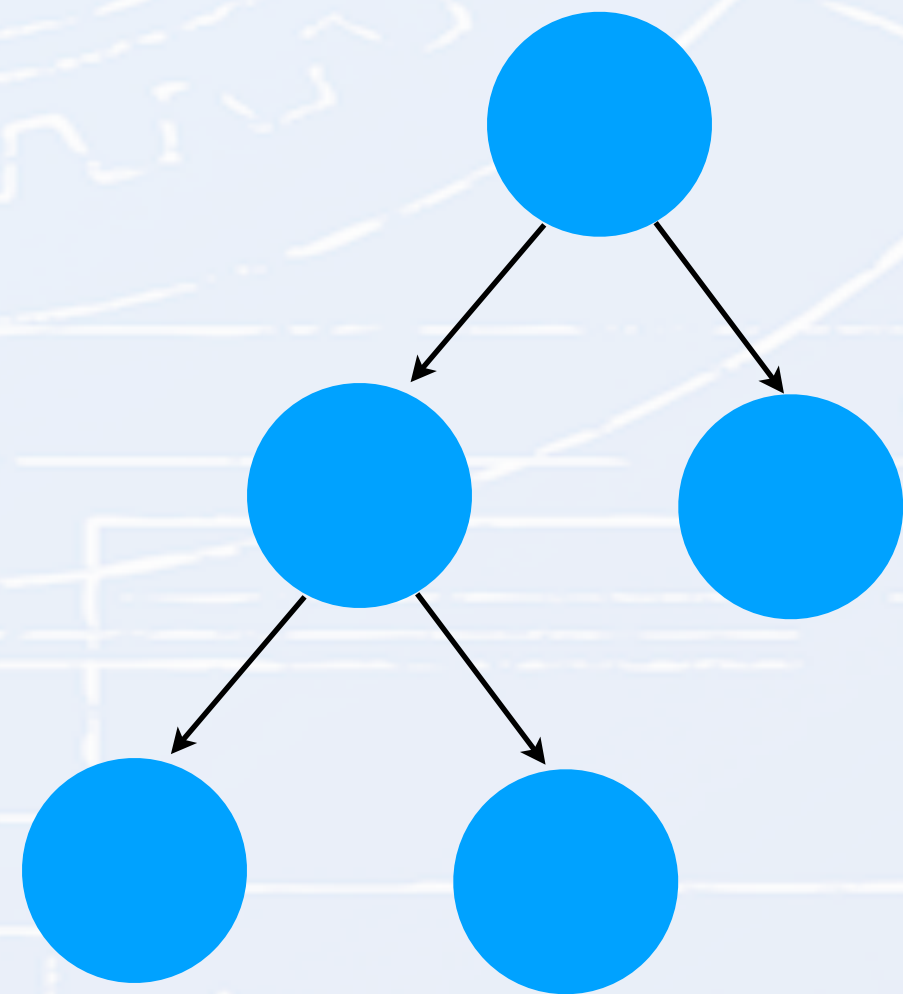
Creating a web application



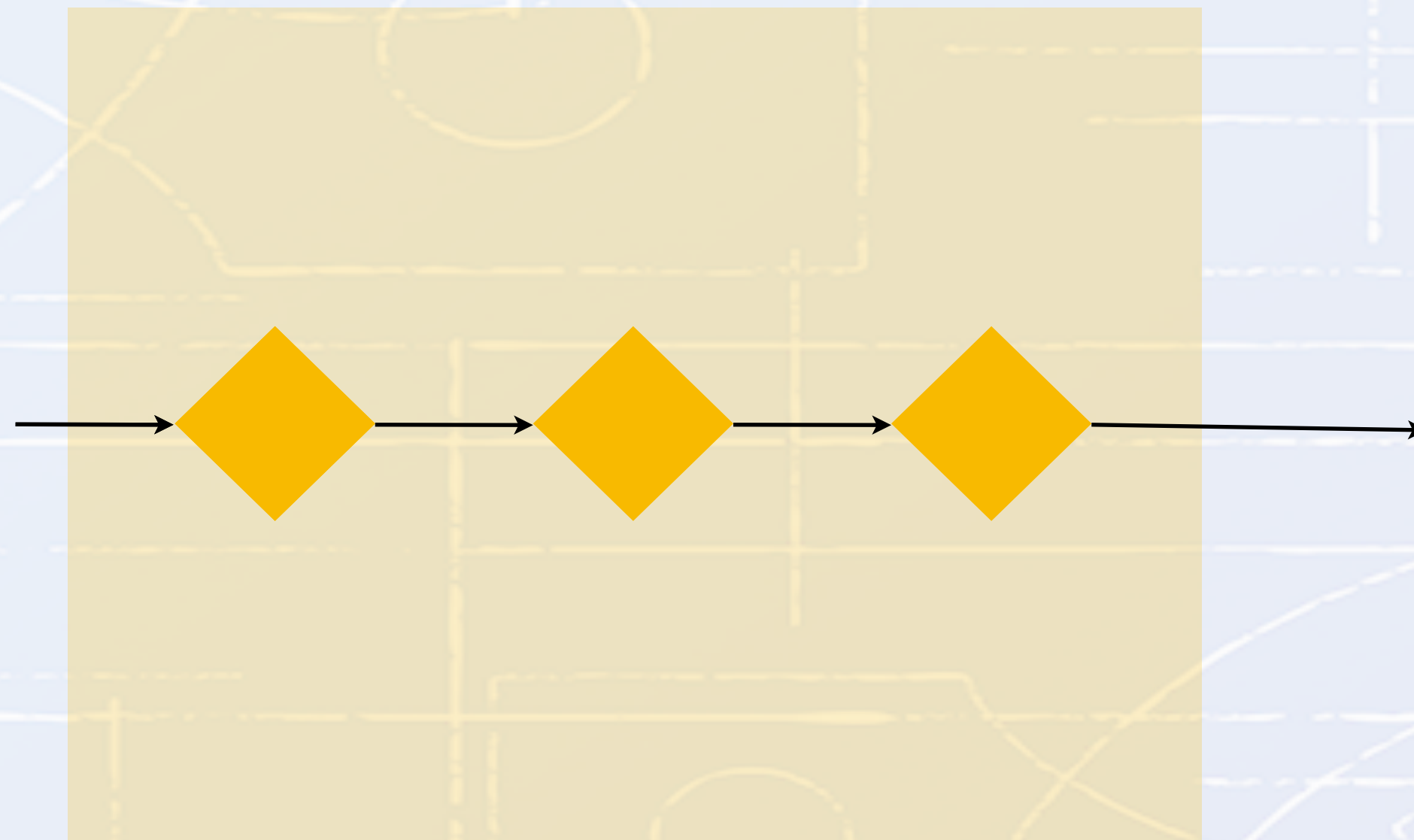
Schematics

- Developed by Angular CLI team
- Custom scaffolding for the CLI
- Transformation pipeline
- Generate and modify code in filesystem
- Potential changes are staged then committed

Schematics



File System
(Tree)



Actions
(Rules)

Commit

Writing Your Own Schematics

```
$ npm install -g @angular-devkit/schematics-cli
```

```
$ schematics blank --name=my-schematics
```

```
CREATE /my-schematics/README.md (639 bytes)
```

```
CREATE /my-schematics/package.json (540 bytes)
```

```
CREATE /my-schematics/tsconfig.json (656 bytes)
```

```
CREATE /my-schematics/.gitignore (191 bytes)
```

```
CREATE /my-schematics/.npmignore (64 bytes)
```

```
CREATE /my-schematics/src/collection.json (234 bytes)
```

```
CREATE /my-schematics/src/my-schematics/index.ts (319 bytes)
```

```
CREATE /my-schematics/src/my-schematics/index_spec.ts (476 bytes)
```


Writing Your Own Schematics

```
import { Rule, SchematicContext, Tree } from '@angular-  
devkit/schematics';  
  
export function mySchematics(_options: any): Rule {  
  return (tree: Tree, _context: SchematicContext) => {  
  
    tree.create(_options.name, 'hello world');  
  
    return tree;  
  };  
}
```

my-schematics/index.ts

```
$ schematics .:my-schematics --name=test --dry-run=false
```

hello world

test

The background is a light blue technical drawing or blueprint. It features various mechanical components such as gears, shafts, and pulleys, along with dimension lines and numerical values. The drawing is oriented horizontally and covers the entire frame.

Where Do You Start?

A New App



```
// Install the latest version of the Angular CLI  
$ npm install -g @angular/cli  
  
// Initialize a new Angular app  
$ ng new my-app  
  
// Add the Clarity module to the app  
$ ng add @clr/angular
```


Clarity Design System



UX guidelines



HTML / CSS



Sketch
template & library



Angular
Components

The background is a light blue technical drawing or blueprint. It features various mechanical components such as gears, shafts, and pulleys, along with dimension lines and numerical values. The drawing is oriented horizontally and covers the entire frame.

Where Do You Start?

BEFORE

angular.json

```
"styles": [  
  "src/styles.scss"  
],  
"scripts": []
```

AFTER

angular.json

```
"styles": [  
  "node_modules/@clr/icons/clr-icons.min.css",  
  "node_modules/@clr/ui/clr-ui.min.css",  
  "src/styles.scss"  
],  
"scripts": [  
  "node_modules/path/to/custom-elements.min.js",  
  "node_modules/@clr/icons/clr-icons.min.js"  
]
```


BEFORE

app.module.ts

```
imports: [  
  BrowserModule,  
  AppRoutingModule  
],
```

AFTER

app.module.ts

```
imports: [  
  BrowserModule,  
  AppRoutingModule,  
  ClarityModule,  
  BrowserModuleAnimationsModule  
],
```

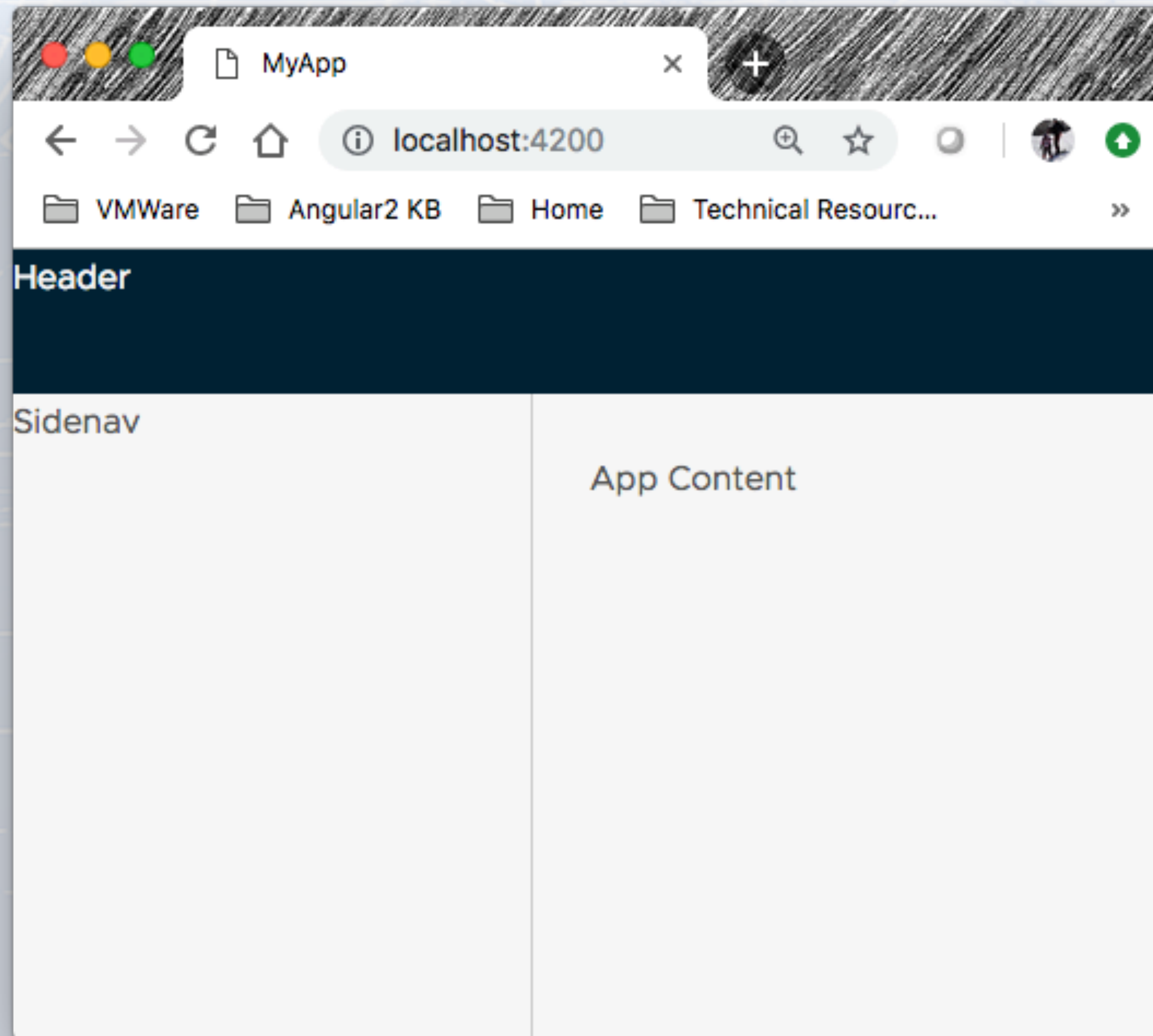

Add Layout

```
<div class="main-container">
  <header class="header header-6">
    ...
  </header>
  <div class="content-container">
    <div class="content-area">
      <router-outlet></router-outlet>
    </div>
    <nav class="sidenav">
      ...
    </nav>
  </div>
</div>
```

app.component.html

- <https://vmware.github.io/clarity/documentation/v1.0/app-layout>
- Creates a basic application structure with a header, sidenav and container for app content

Standard Clarity Layout



Create A Home

```
$ ng generate component home
CREATE src/app/home/home.component.scss (0 bytes)
CREATE src/app/home/home.component.html (23 bytes)
CREATE src/app/home/home.component.spec.ts (614 bytes)
CREATE src/app/home/home.component.ts (262 bytes)
CREATE src/app/app.module.ts (641 bytes)
```

app.module.ts

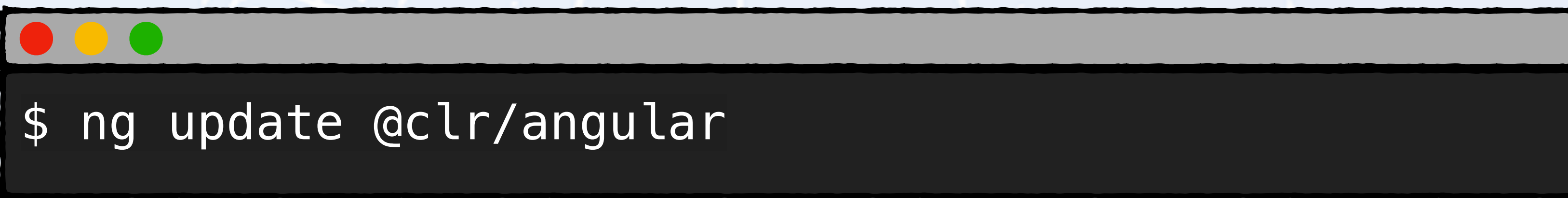
```
declarations: [
  AppComponent,
  HomeComponent
],
```


The background is a light blue surface with a faint, white technical drawing. It features various geometric shapes including circles, gears, and rectangles, connected by lines and arrows, suggesting a mechanical or engineering theme. Some numbers like '26', '22.244', and '92' are visible within the drawing.

What if ...

You already have a Clarity app?

Update Existing Apps



```
$ ng update @clr/angular
```

A terminal window with a grey title bar and three colored window control buttons (red, yellow, green) on the left. The terminal text is white on a black background.

UPDATE MESSAGES



Update



Warn

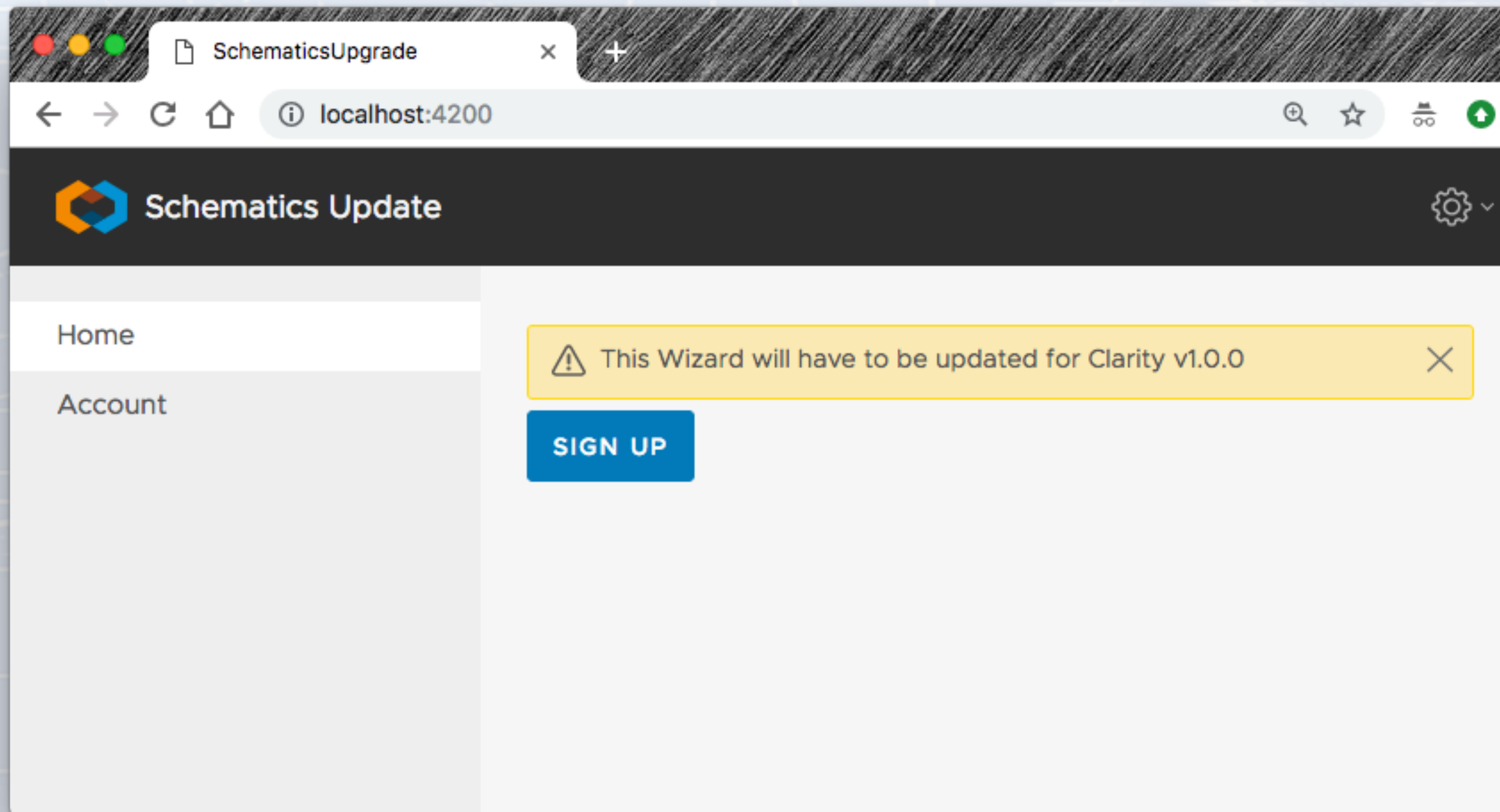


Info



Error

Upgrade Demonstration



- Starts at Clarity version 0.11.10
- Will be upgraded to Clarity version 1.0.0



BEFORE

home.component.ts

```
export class HomeComponent {  
  @ViewChild('wizard') wizard: Wizard;  
  @ViewChild('pageThree') pageThree: WizardPage;  
  @ViewChild('pageFive') pageFive: WizardPage;  
  ...  
}
```

AFTER

home.component.ts

```
export class HomeComponent {  
  @ViewChild('wizard') wizard: ClrWizard;  
  @ViewChild('pageThree') pageThree: ClrWizardPage;  
  @ViewChild('pageFive') pageFive: ClrWizardPage;  
  ...  
}
```




CODE

```
<clr-dg-column-toggle>  
  <clr-dg-column-toggle-title clrType="ok">  
    好!  
  </clr-dg-column-toggle-title>  
  <clr-dg-column-toggle-button>全選!</...>  
</clr-dg-column-toggle>
```

my.component.ts

WARNING

WARNING: Clarity has removed the ok button (clrType="ok") from the column hide/show panel in datagrid. Any custom <clr-dg-column-toggle-button> component will now default to clrType="selectAll" without needing the attribute. Please remove any custom ok button in the column hide/show panel, and also remove the clrType attributes for buttons with



CODE

home.component.html

```
<clr-dg-cell>
  {{user.name}}
  <clr-icon shape="wand"></clr-icon>
</clr-dg-cell>
```

INFO

INFO: The following icons have been deprecated in its respective set and have been moved to another set: `angle-double`, `bar-chart`, `collapse`, `line-chart`, `wand`. Please check that they are being imported from the correct set. (src/app/account/account.component.html) More info at <https://vmware.github.io/clarity/news/0.13.0-rc.1>



CODE

home.component.ts

```
<clr-wizard #wizard [(clrWizardOpen)]="open"  
              [clrWizardShowGhostPages]="true"  
              [clrWizardSize]=" 'md' ">  
  <!-- Declared wizard components ... -->  
</clr-wizard>
```

ERROR

ACTION REQUIRED: Clarity has removed ghost pages from the Wizard component, please update your wizards accordingly. (src/app/home/home.component.html) More info at <https://vmware.github.io/clarity/news/0.13.0-beta.2>

Schematics is Power



Generate



Configure



Extend



Focus

Thank you



<http://clarity.design>



<https://github.com/ngChina>