



moving mountains

github.com/ijlee2

problems with old repo

~190 pkgs. (105 addons)

slow CI/CD

yarn v1

stuck on Ember v3.28

tight coupling

poor documentation

goals for new repo

as few pkgs. as possible

fast CI, publish

pnpm

ember-try

clean separation

glint, docs-app, test-app

ingredients

- *1 package registry*
- *1 tsp. knowledge of addons*
- *1 tsp. knowledge of monorepos*
- *1 t. belief in self and others*

my-repo

docs-app

package

test-app

my-repo

docs-app



package

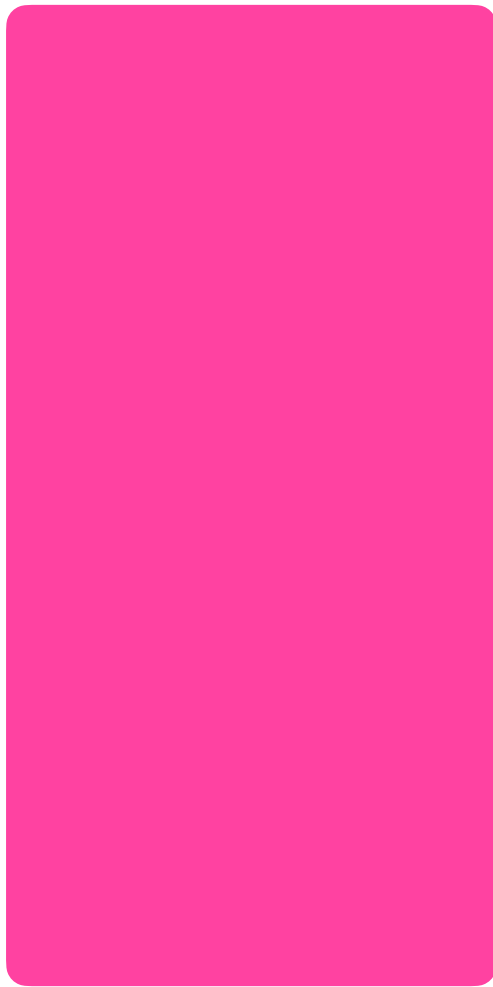


test-app



my-repo

docs-app



packages



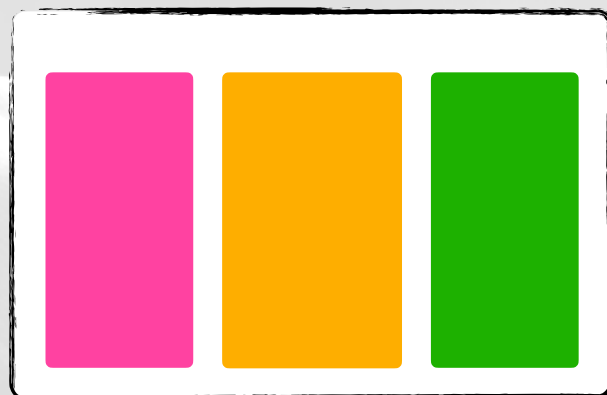
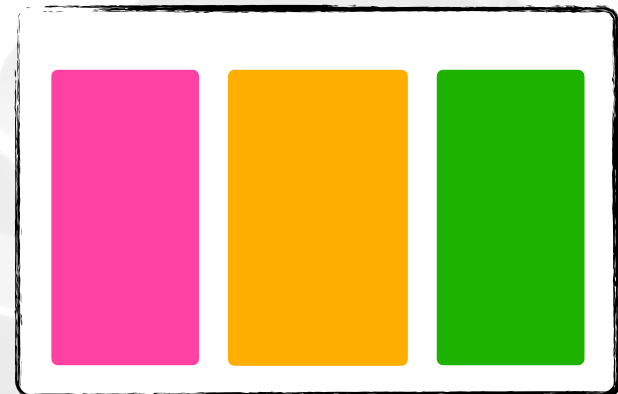
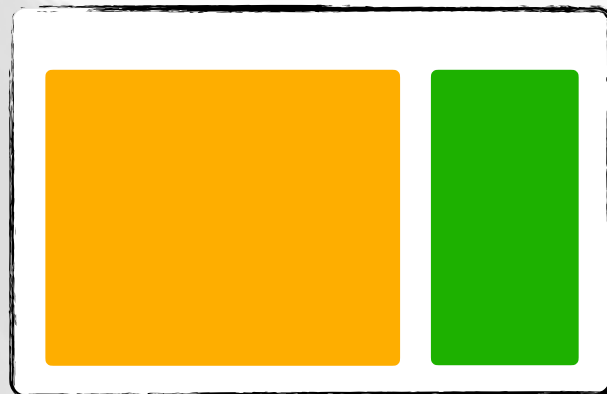
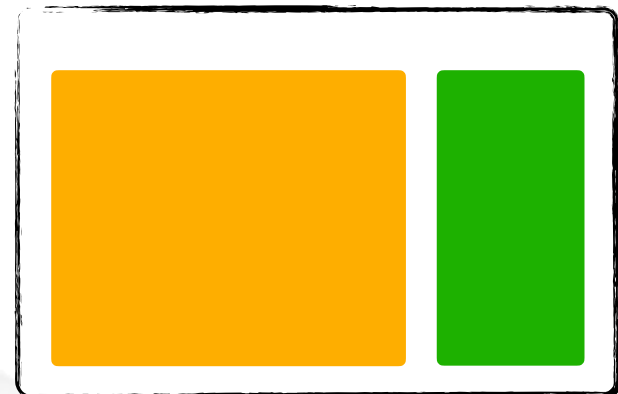
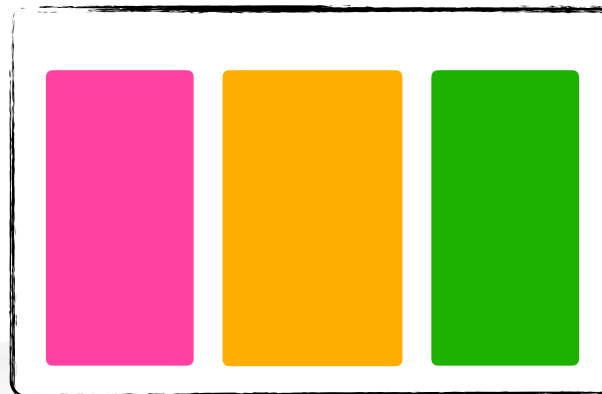
⋮



test-app



all-our-repos





1

**moving
one addon**



1a

**en route
to v2**

outcomes

- *Separate responsibilities*
- *Use pnpm to create monorepo*
- *Convert addon to v2*

my-repo

docs-app

package

test-app

my-repo

└─	addon			
└─	app			
└─	tests			
	└─ dummy			
	└─ helpers			
	└─ integration			
	└─ unit			
└─	types			
└─	ember-cli-build.js			
└─	index.js			
└─	package.json			
└─	tsconfig.json			

my-repo

package (v1)

- └─ addon
- └─ app
- └─ tests (unused)
- └─ ...
- └─ package.json

test-app

- └─ app
- └─ tests
- └─ ...
- └─ package.json

my-repo

docs-app

- └─ app
- └─ tests
- └─ ...
- └─ package.json

package (v1)

- └─ addon
- └─ app
- └─ tests (unused)
- └─ ...
- └─ package.json

test-app

- └─ app
- └─ tests
- └─ ...
- └─ package.json

my-repo

docs-app

- └─ app
- └─ tests
- └─ ...
- └─ package.json

package (v2)

- └─ src
- └─ ...
- └─ package.json

test-app

- └─ app
- └─ tests
- └─ ...
- └─ package.json

pnpm

- *Strict about dependencies*
- *Favored by Embroider apps and v2 addons*
- `pnpm <outdated|publish|update|why> -r`

pnpm-workspace.yaml

```
1 packages:
2   - docs-app
3   - packages/my-addon
4   - test-app
```

test-app: package.json

```
1 {
2   "name": "test-app",
3   "devDependencies": {
4     "ember-cli": "~5.11.0",
5     "ember-source": "~5.11.0",
6     "my-addon": "workspace:*"
7   }
8 }
```

my-repo

docs-apps



⋮



package



test-apps



⋮



one addon, many apps

-  *Test multiple setups*
-  *Test multiple screen resolutions (maybe?)*
-  *Test multiple versions of a dependency*

recipe 1

1. *Create a monorepo*
2. *Create a docs-app, v2 addon, and test-app*
3. *Set up lint, test, CI, and documentation*
4. *Move code over*

recipe 2

Get started:

```
npx ember-codemod-v1-to-v2
```

github.com/ijlee2/ember-codemod-v1-to-v2

recipe 3

1. *Let someone else create a v2 addon repo?*
2. *Move code over*



1_b

**backward
compatibility**

my-repo

package (v1)

```
├─ addon
│   ├─ components
│   ├─ helpers
│   ├─ modifiers
│   ├─ services
│   └─ utils
├─ app
│   ├─ components
│   ├─ helpers
│   ├─ modifiers
│   ├─ services
│   └─ utils
├─ ...
└─ package.json
```

package (v2)

```
├─ src
│   ├─ components
│   ├─ helpers
│   ├─ modifiers
│   ├─ services
│   └─ utils
├─ ...
├─ package.json (*)
└─ rollup.config.mjs (*)
```

● ● ● my-addon: src/components/hello.hbs

```
1 <div>
2   Hello!
3 </div>
```

● ● ● my-addon: src/components/hello.ts

```
1 import Component from '@glimmer/component';
2
3 export default class HelloComponent extends Component {}
```

my-addon: package.json

```
1  {  
2    "name": "my-addon",  
3    "files": [  
4      "addon-main.cjs",  
5      "declarations",  
6      "dist"  
7    ],  
8    "ember-addon": {  
9      "app-js": {  
10       "components/hello.js": "dist/_app_/hello.js"  
11     }  
12   }  
13 }
```

my-addon: rollup.config.mjs

```
1  const addon = new Addon({
2    srcDir: 'src',
3    destDir: 'dist',
4  });
5
6  export default {
7    plugins: [
8      addon.appReexports([
9        'components/**/*.js',
10       'helpers/**/*.js',
11       'modifiers/**/*.js',
12       'services/**/*.js',
13       'utils/**/*.js',
14     ]),
15   ],
16  };
```

outcomes

- *Provide barrel file + template registry*
- *Provide styles*
- *Provide translations*
- *Provide assets*
- *Provide test helpers*

my-repo

package (v1)

```
└─ addon
  │   └─ components
  │   └─ index.ts
  │   └─ template-registry.ts
└─ ...
└─ package.json
```

package (v2)

```
└─ src
  │   └─ components
  │   └─ index.ts
  │   └─ template-registry.ts
└─ ...
└─ package.json
└─ rollup.config.mjs (*)
```

● ● ● my-addon: src/index.ts

```
1 export { default as Hello } from './components/hello.ts';
```

● ● ● docs-app: app/components/demo-hello.gts

```
1 import { Hello } from 'my-addon';  
2  
3 <template>  
4   <Hello />  
5 </template>
```

● ● ● my-addon: src/template-registry.ts

```
1 import type HelloComponent from './components/hello.ts';  
2  
3 export default interface MyAddonRegistry {  
4   Hello: typeof HelloComponent;  
5   hello: typeof HelloComponent;  
6 }
```

● ● ● docs-app: app/components/demo-hello.hbs

```
1 <Hello />
```

my-addon: rollup.config.mjs

```
1 export default {  
2   plugins: [  
3     addon.publicEntrypoints([  
4       '**/*.js',  
5       'index.ts',  
6       'template-registry.ts',  
7     ]),  
8   ],  
9 };
```

my-repo

package (v1)

```
├─ addon
|   └─ components
|       ├─ hello.css
|       ├─ hello.css.d.ts
|       ├─ hello.hbs
|       └─ hello.ts
├─ ...
└─ package.json
```

package (v2)

```
├─ src
|   └─ components
|       ├─ hello.css
|       ├─ hello.css.d.ts
|       ├─ hello.hbs (*)
|       └─ hello.ts (*)
├─ ...
├─ package.json
└─ rollup.config.mjs (*)
```

```
● ● ● my-addon: src/components/hello.hbs
1 <div class={{this.styles.container}}>
2   Hello!
3 </div>
```

```
● ● ● my-addon: src/components/hello.ts
1 import Component from '@glimmer/component';
2
3 import styles from './hello.css';
4
5 export default class HelloComponent extends Component {
6   styles = styles;
7 }
```

● ● ● my-addon: rollup.config.mjs

```
1  import postcss from 'rollup-plugin-postcss';
2
3  export default {
4    plugins: [
5      postcss({
6        autoModules: false,
7        modules: {
8          generateScopedName: 'my-addon__[sha512:hash:base64:5]',
9        },
10     }),
11   ],
12 };;
```

github.com/ijlee2/embroider-css-modules

my-repo

package (v1)

```
├─ addon
├─ translations
│   ├─ de-de.yaml
│   └─ en-us.yaml
├─ ...
└─ package.json
```

package (v2)

```
├─ src
├─ translations
│   ├─ de-de.yaml
│   └─ en-us.yaml
├─ ...
├─ package.json (*)
└─ rollup.config.mjs
```



```
● ● ● my-addon: src/components/hello.hbs
1 <div class={{this.styles.container}}>
2   {{t "hello.message"}}
3 </div>
```

github.com/ember-intl/ember-intl

my-addon: package.json

```
1  {  
2    "name": "my-addon",  
3    "files": [  
4      "addon-main.cjs",  
5      "declarations",  
6      "dist",  
7      "translations"  
8    ]  
9  }
```

github.com/ember-intl/ember-intl

my-repo

package (v1)

```
├─ addon
├─ public
│   └─ assets
│       └─ zoey.png
├─ ...
└─ package.json
```

package (v2)

```
├─ public
│   └─ assets
│       └─ zoey.png
├─ src
├─ ...
├─ package.json (*)
└─ rollup.config.mjs (*)
```

my-addon: src/components/hello.hbs

```
1 <div class={{this.styles.container}}>
2   {{t "hello.message"}}
3
4   
9 </div>
```

my-addon: package.json

```
1  {
2    "name": "my-addon",
3    "files": [
4      "addon-main.cjs",
5      "declarations",
6      "dist",
7      "public",
8      "translations"
9    ],
10   "ember-addon": {
11     "public-assets": {
12       "./public/assets/zoey.png": "/my-addon/zoey.png"
13     }
14   }
15 }
```

● ● ● my-addon: rollup.config.mjs

```
1 export default {  
2   plugins: [  
3     addon.publicAssets('public/assets', {  
4       exclude: ['**/*.'],  
5       namespace: 'my-addon',  
6     }),  
7   ],  
8 };
```

my-repo

package (v1)

```
├─ addon
├─ addon-test-support
│   ├─ components
│   │   └─ hello.ts
│   └─ index.ts
├─ ...
└─ package.json
```

package (v2)

```
├─ src
│   └─ test-support
│       └─ components
│           └─ hello.ts
│       └─ test-support.ts
├─ ...
├─ package.json
└─ rollup.config.mjs (*)
```

● ● ● my-addon: src/test-support/components/hello.ts

```
1 export function assertZoeyExists(assert: Assert) {  
2   assert.dom('img').hasAttribute('src', '/my-addon/zoey.png');  
3 }
```

● ● ● test-app: tests/integration/components/hello-test.gts

```
1 import { render } from '@ember/test-helpers';  
2 import { Hello } from 'my-addon';  
3 import { assertZoeyExists } from 'my-addon/test-support';  
4 import { module, test } from 'qunit';  
5 import { setupRenderingTest } from 'test-app/tests/helpers';  
6  
7 module('Integration | Component | hello', function (hooks) {  
8   setupRenderingTest(hooks);  
9  
10  test('it renders', async function (assert) {  
11    await render(<template><Hello /></template>);  
12  
13    assertZoeyExists(assert);  
14  });  
15 });
```

● ● ● my-addon: unpublished-development-types/index.d.ts

```
1 import '@glint/environment-ember-loose';
2 import '@glint/environment-ember-template-imports';
3 import 'ember-source/types';
4 import 'qunit-dom';
5
6 import type MyAddonRegistry from '../src/template-registry.ts';
7
8 declare module '@glint/environment-ember-loose/registry' {
9   export default interface Registry extends MyAddonRegistry {}
10 }
```

my-addon: rollup.config.mjs

```
1 export default {  
2   plugins: [  
3     addon.publicEntrypoints([  
4       '**/*.js',  
5       'index.ts',  
6       'template-registry.ts',  
7       'test-support.ts',  
8     ]),  
9   ],  
10  };
```

takeaways

- *Incremental migration is easy*
- *Project configuration is hard*
- *Let someone else create a v2 addon repo?*

The background of the slide features a grayscale image of a mountain range. The mountains are layered, with some peaks in the foreground and others receding into the distance, creating a sense of depth. The lighting is soft, highlighting the ridges and valleys. In the top right corner, a large, bold, black number '2' is displayed.

2

**moving
many addons**



2_a

**new
problems**

outcomes

- *How to set up the repo?*
- *Which addon (or file) to extract first?*
- *How to find missing and unused dependencies?*
- *How to release many addons but create one tag?*
- *How to make all addons look the same?*

my-repo

docs-app



package

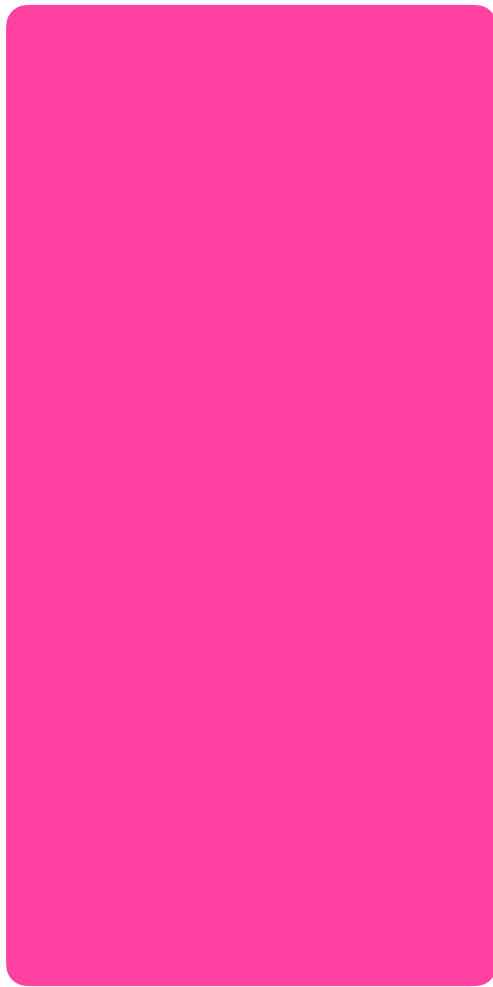


test-app



my-repo

docs-app



packages



⋮



test-app



my-repo

docs-apps



⋮



packages



⋮



test-apps



⋮



the right code

- *Has a minimum API*
- *Separates concerns*
- *Depends on few*

my-repo

docs-app

- *Show all packages*
- *Bleeding-edge Ember*
- *Percy*
- *Deploy*

packages



⋮



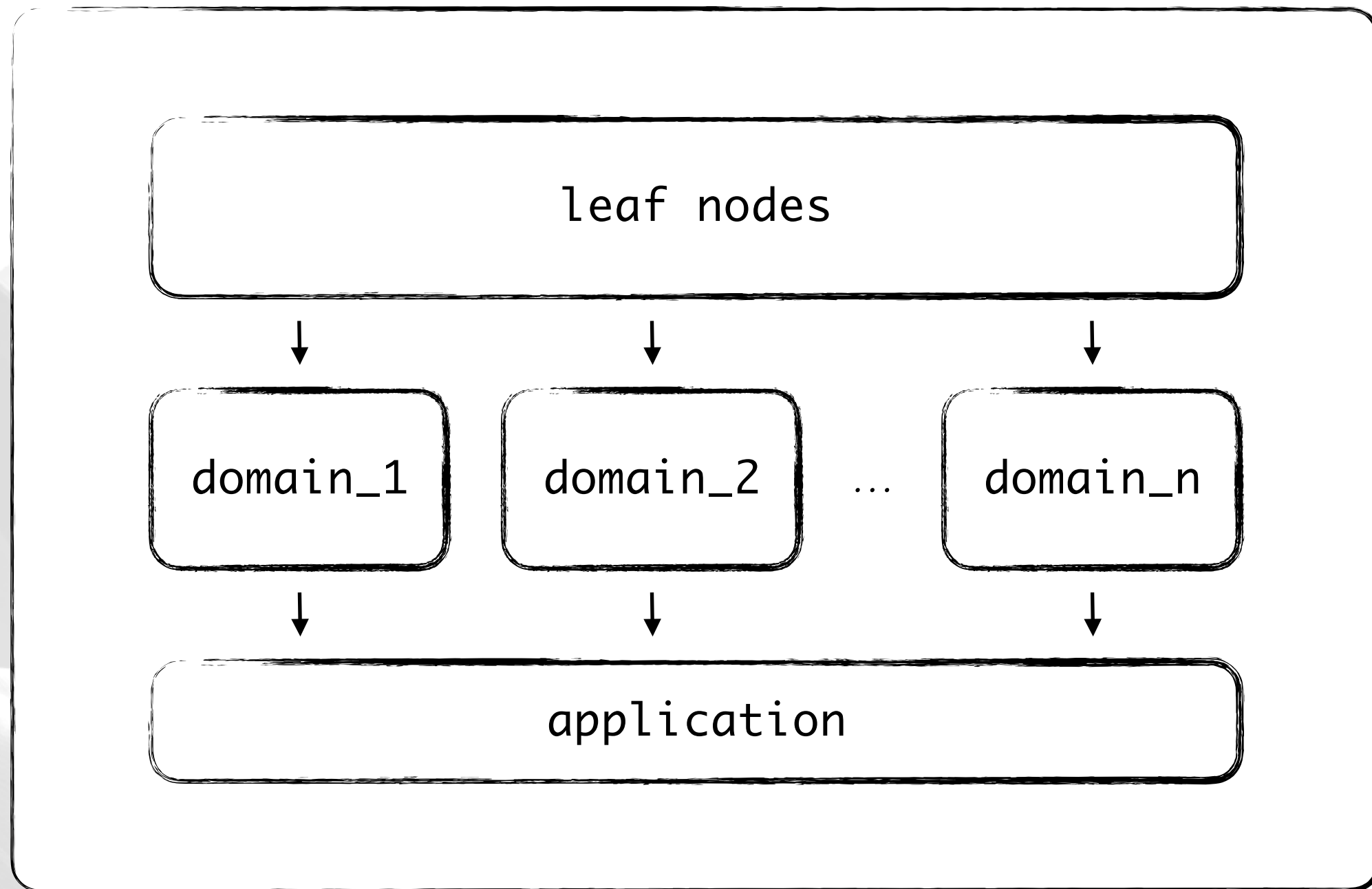
test-app

- *Test all packages*
- *ember-try*
- *ember-a11y-testing*
- *ember-exam (later)*

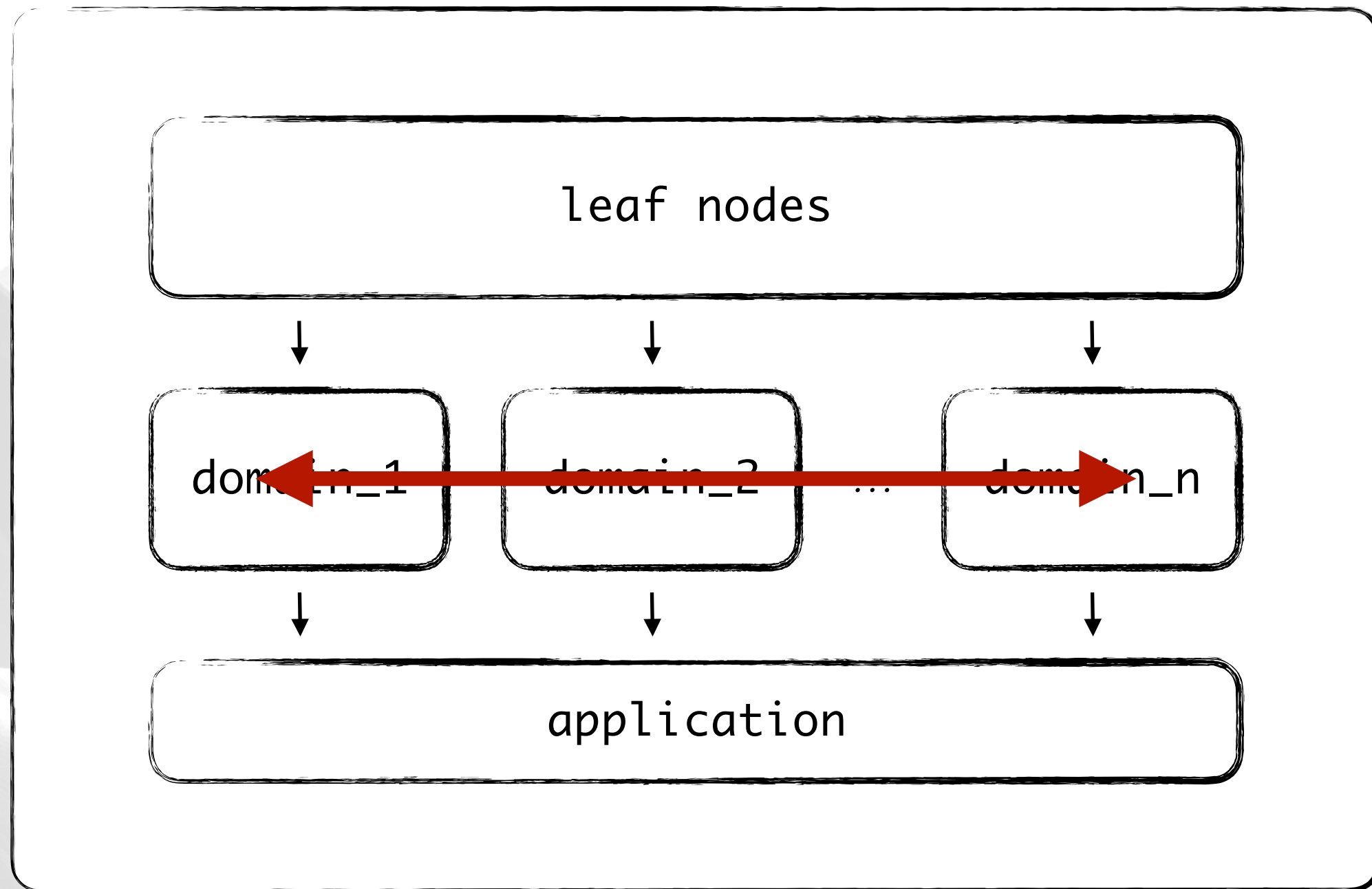
package.json

```
1  {
2    "name": "workspace-root",
3    "private": true,
4    "scripts": {
5      "build": "pnpm --filter './packages/**' build",
6      "lint": "pnpm --filter '*' lint",
7      "lint:fix": "pnpm --filter '*' lint:fix",
8      "start": "concurrently 'pnpm:start:*'",
9      "start:docs-app": "pnpm --filter docs-app start",
10     "start:test-app": "pnpm --filter test-app start",
11     "test": "pnpm --filter docs-app --filter test-app test"
12   },
13   "devDependencies": {
14     "concurrently": "^9.0.0"
15   }
16 }
```

my-old-repo



my-old-repo



checklist (ranking)

API

- *is classic component*
- *is template-only*
- *# of actions*
- *# of arguments*

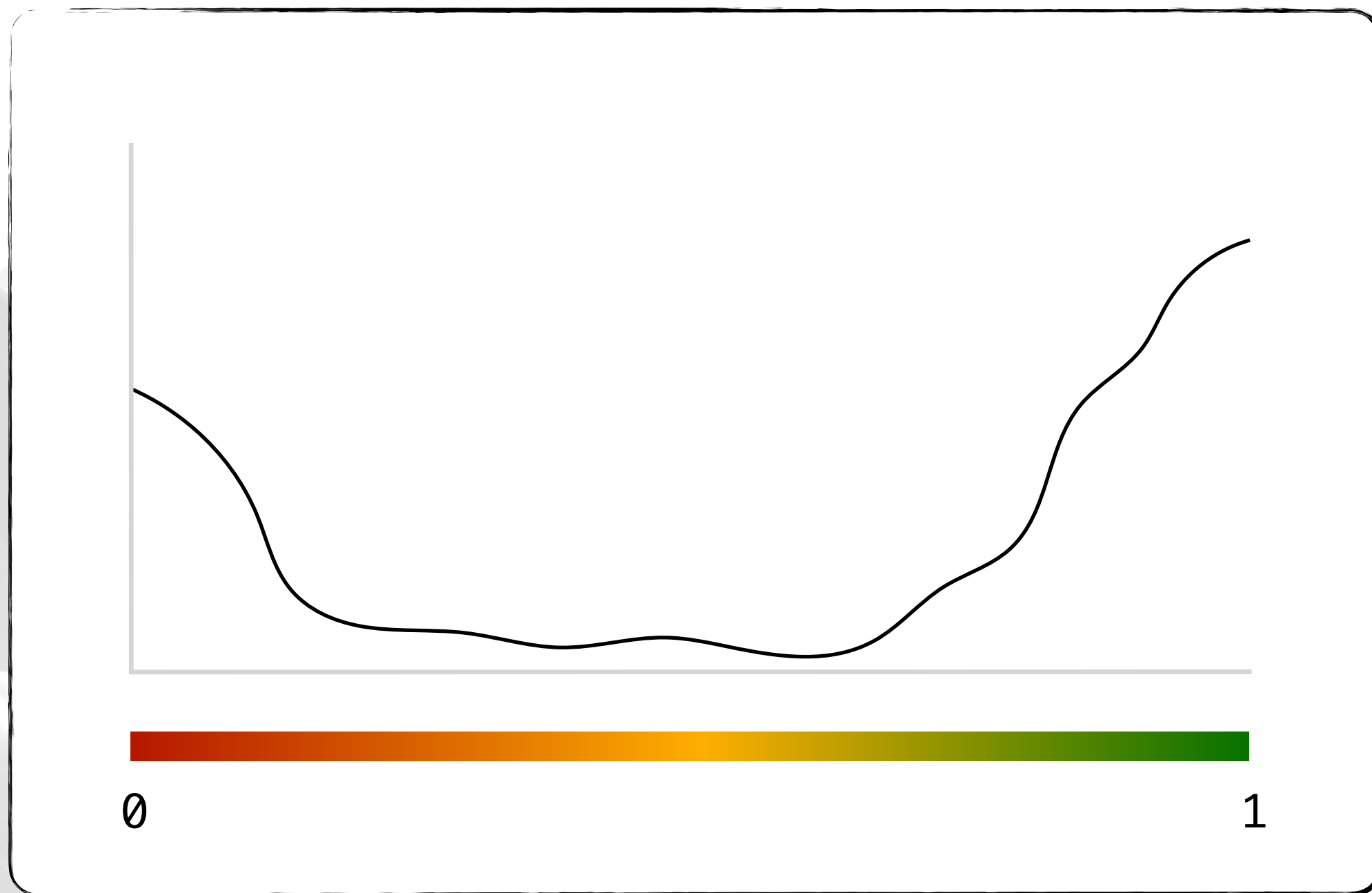
SoC

- *has class attribute (global styles)*
- *has named blocks*
- *has splattributes*
- *# of lines of code*

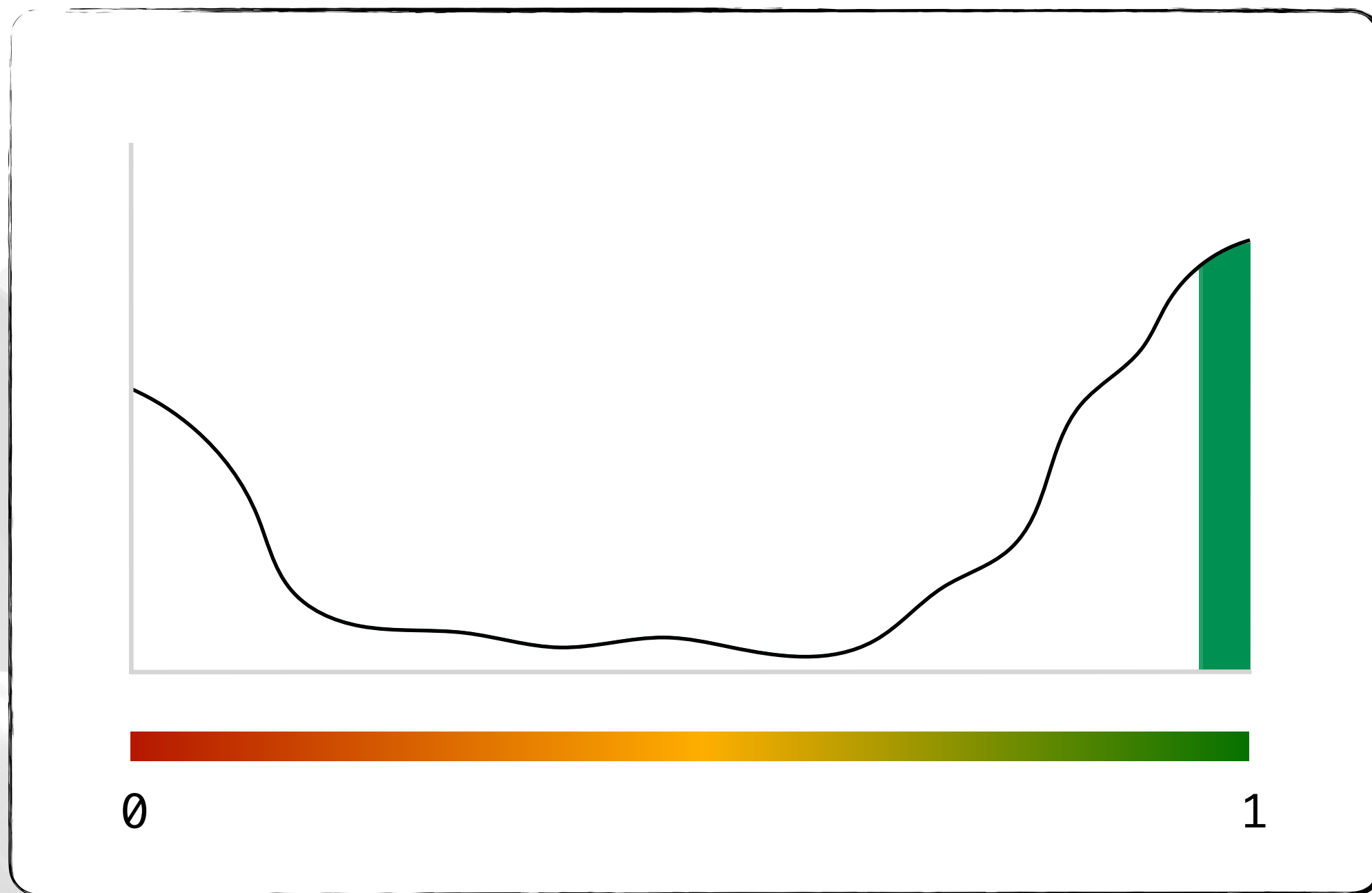
Dependencies

- *has components*
- *has helpers*
- *has modifiers*
- *has services*
- *has utilities*
- *# of imports (3rd-party)*

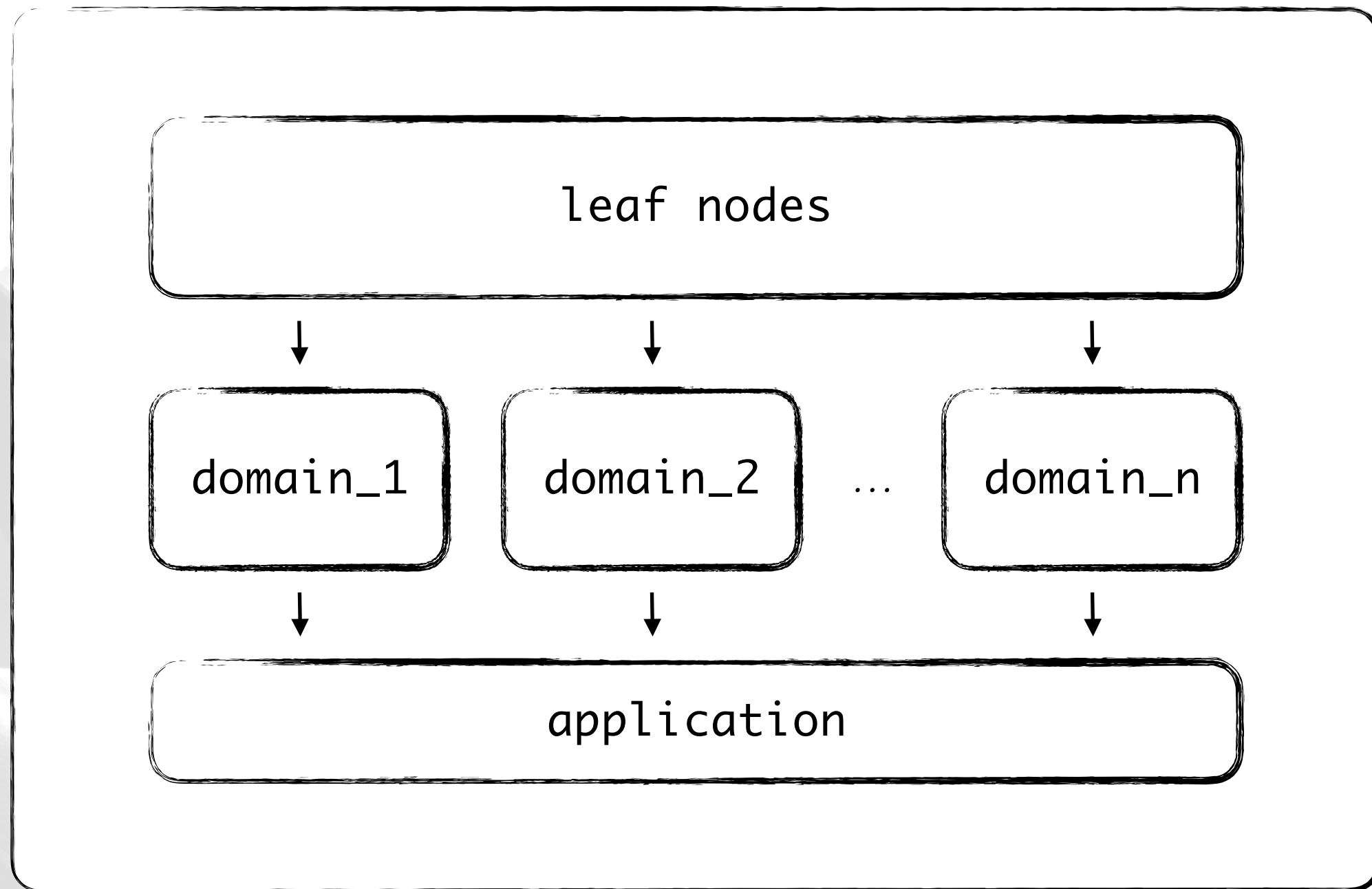
checklist (ranking)



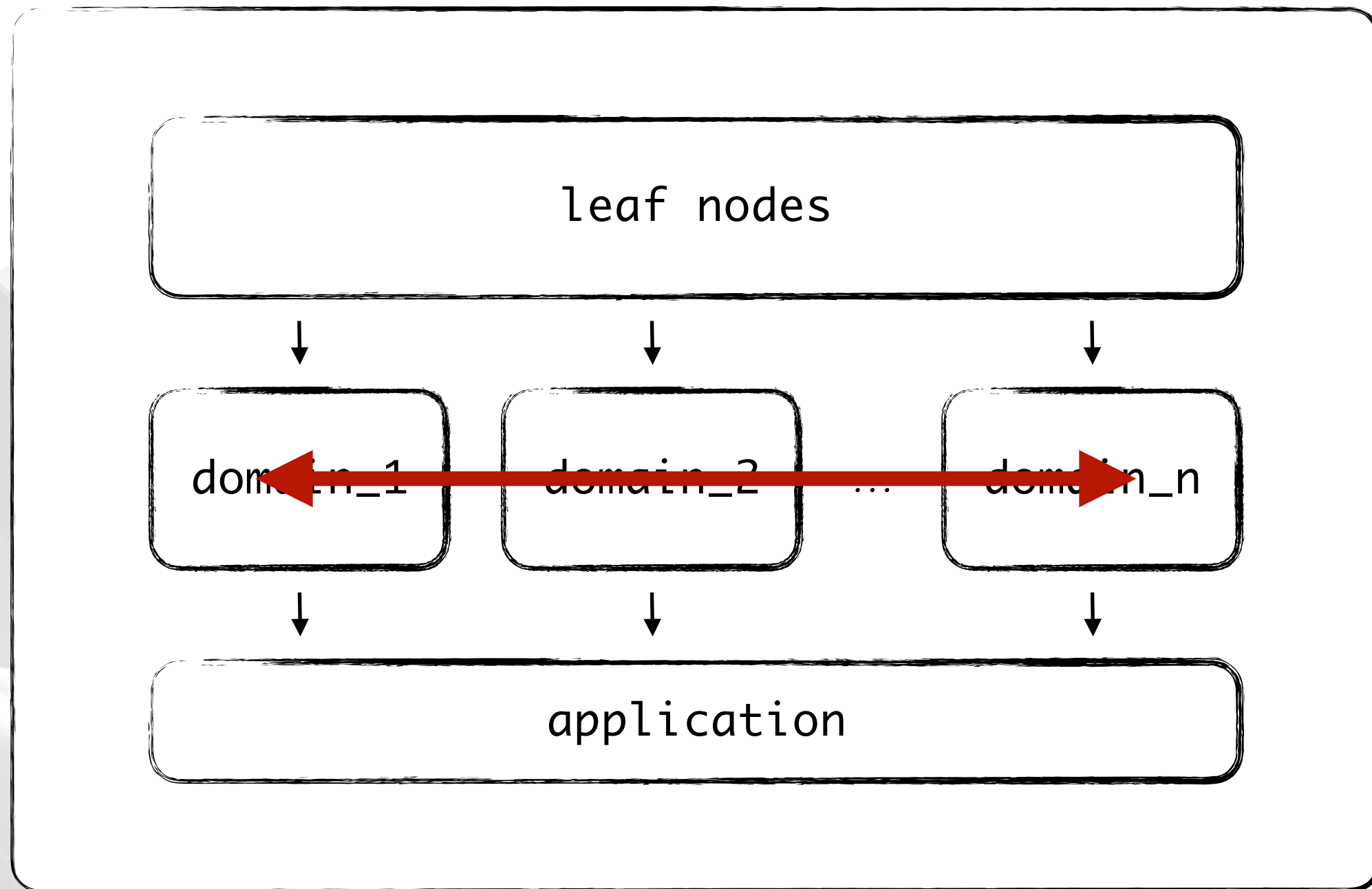
checklist (ranking)



my-old-repo



my-old-repo



checklist (dependencies)

*.hbs

- *Block params*
- *Components*
- *Helpers*
- *Modifiers*

*.{js,ts}

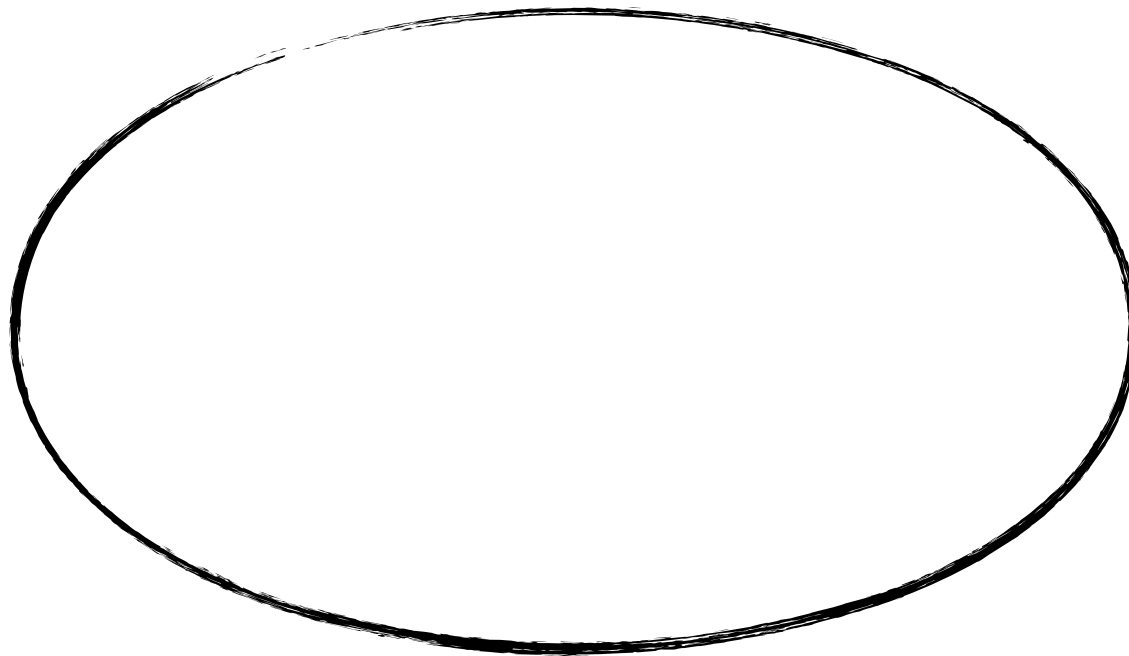
- *Modules (export, import, require)*
- *Services*

package.json

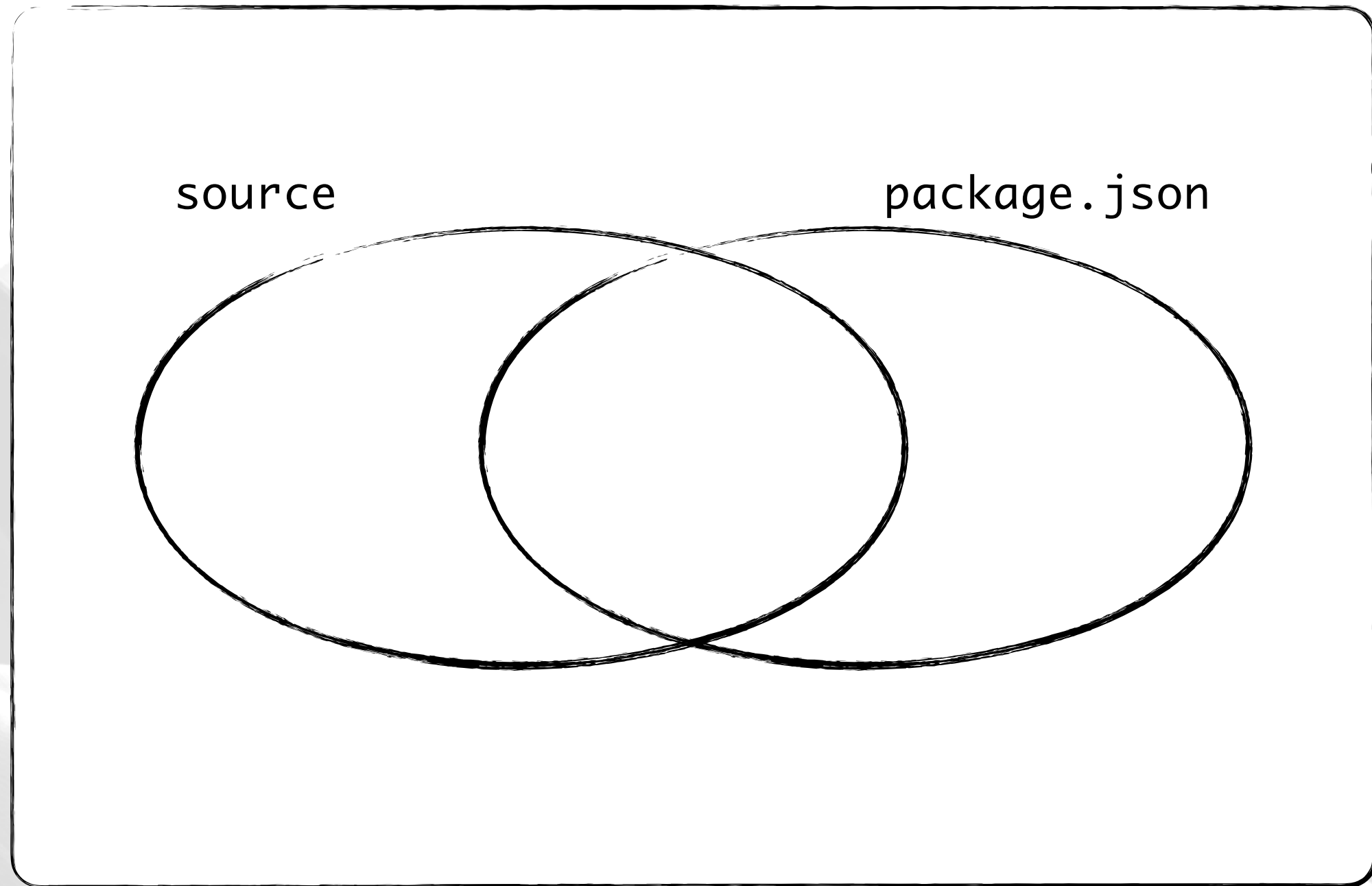
- *devDependencies*
- *dependencies*
- *peerDependencies*

checklist (dependencies)

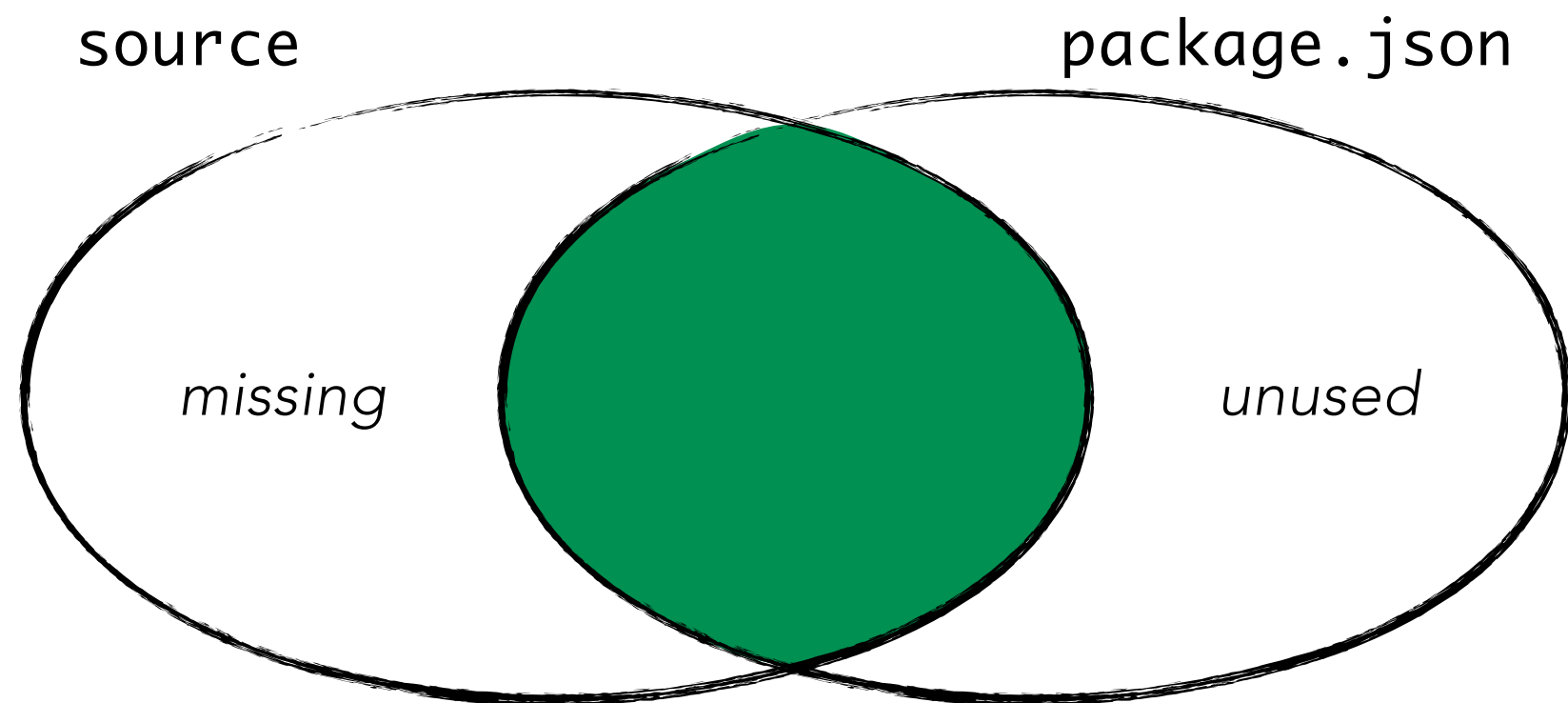
source



checklist (dependencies)



checklist (dependencies)



analyze project

Get started:

```
npx analyze-ember-project-dependencies
```

github.com/ijlee2/embroider-toolbox

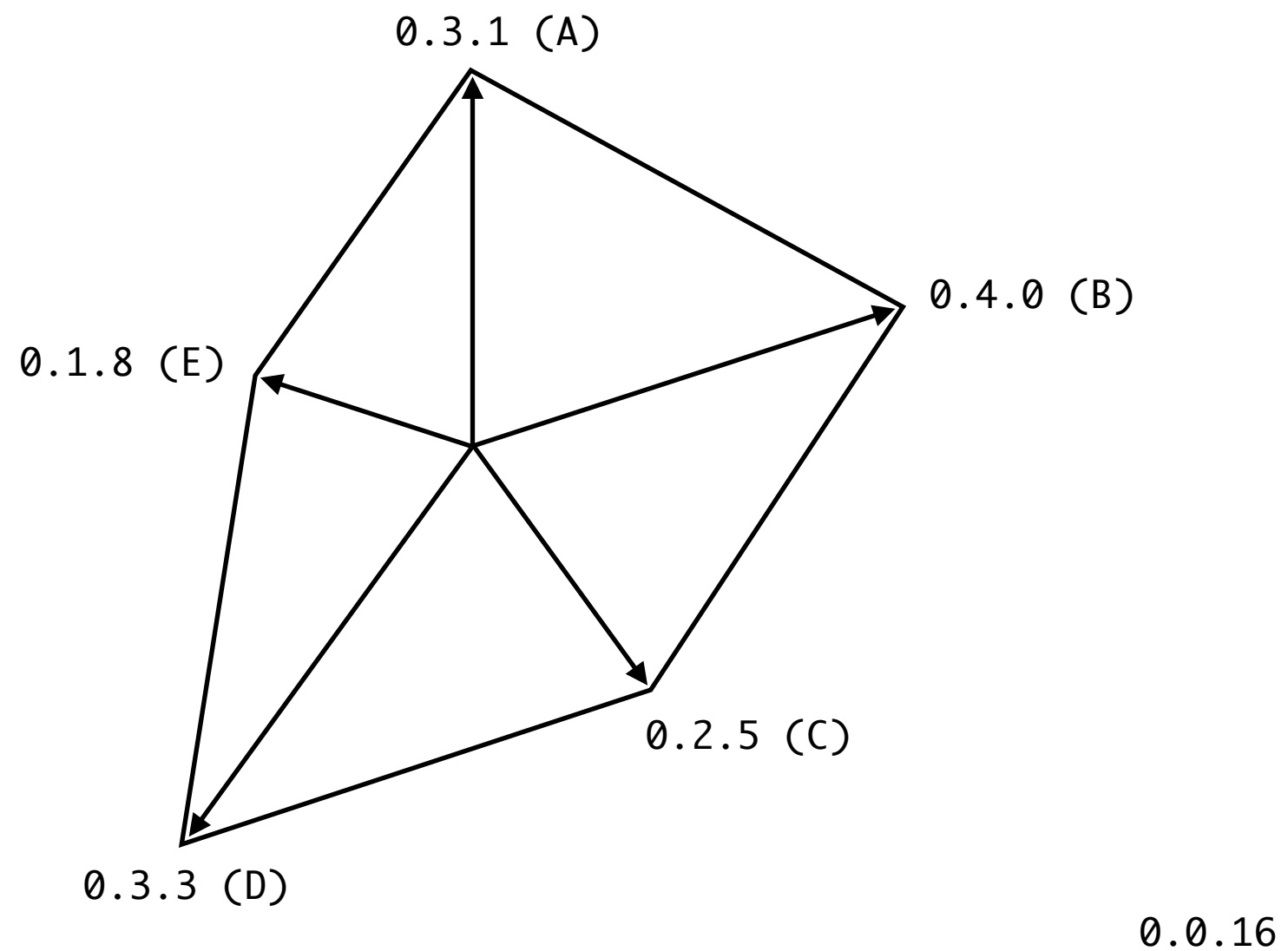
releases

- *Follow semantic versioning in each package*
- *Add changeset or label to pull request*
- *Publish often, consume fast*

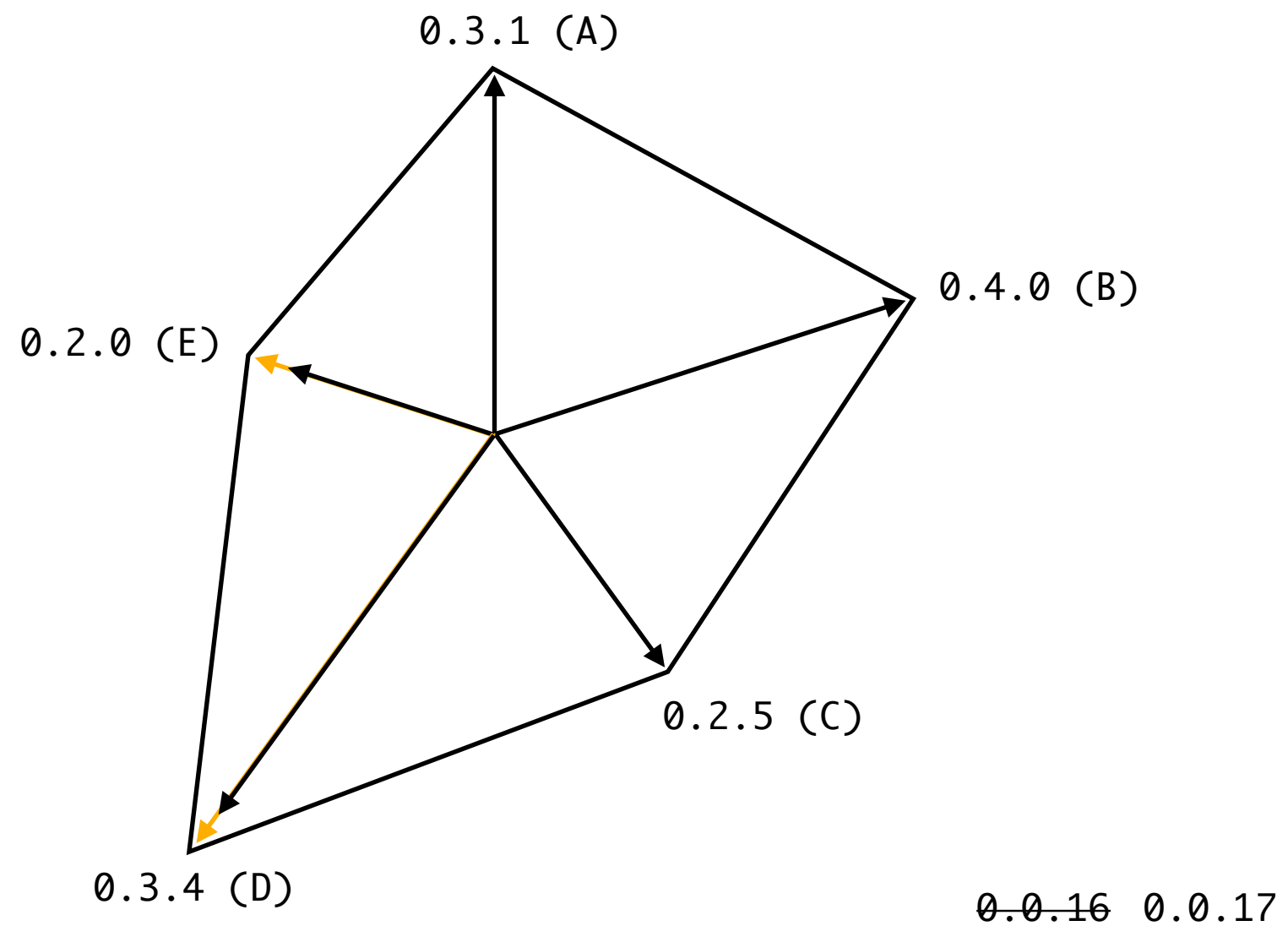
git tags

- 🚫 *Never*
- 🚫 *Fixed version (i.e. bump all packages)*
- ⚠️ *Per package per version*
- ✅ *Workspace root's version (increment by one)*
- ✅ *Workspace root's version (highest version)*

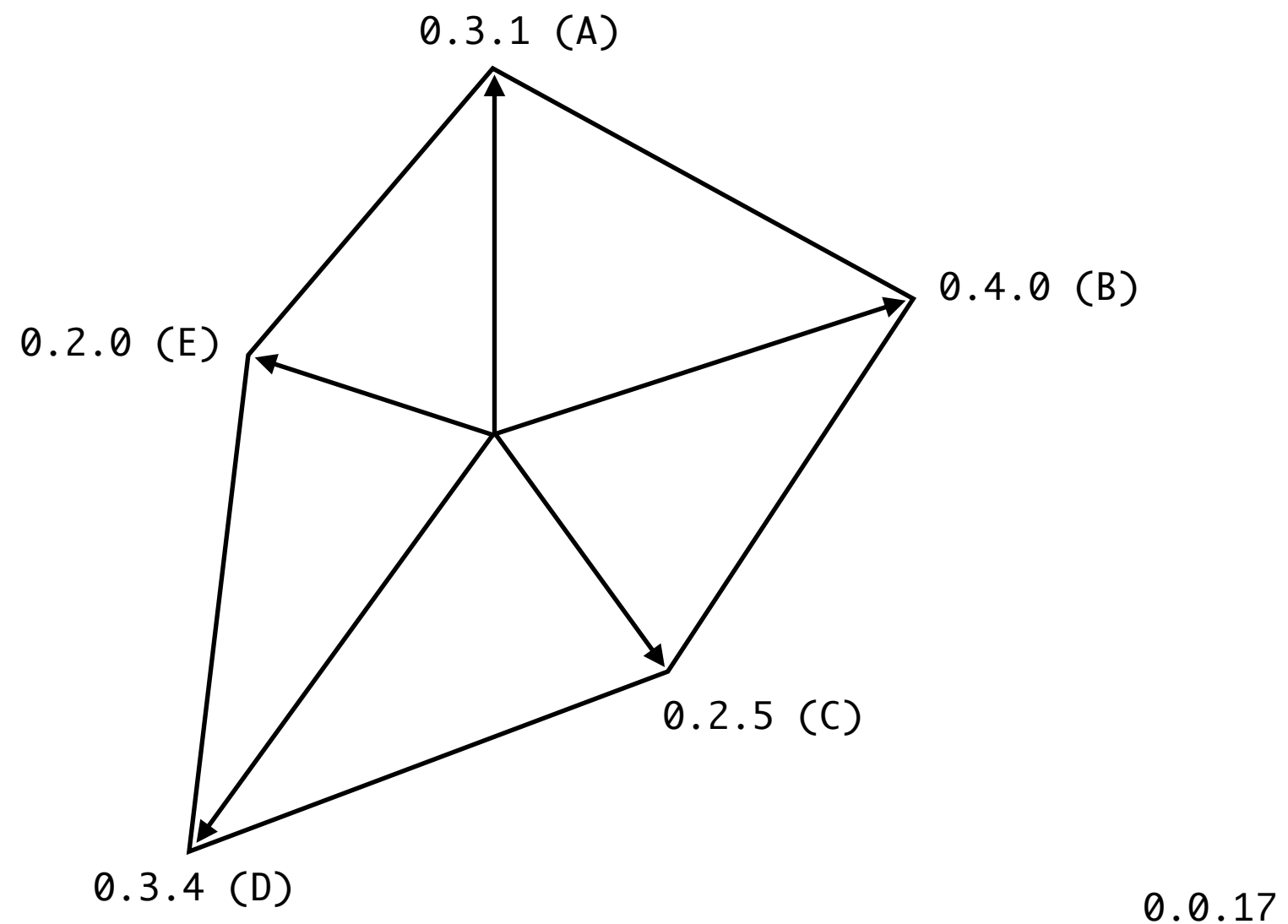
my-repo (increment-by-one)



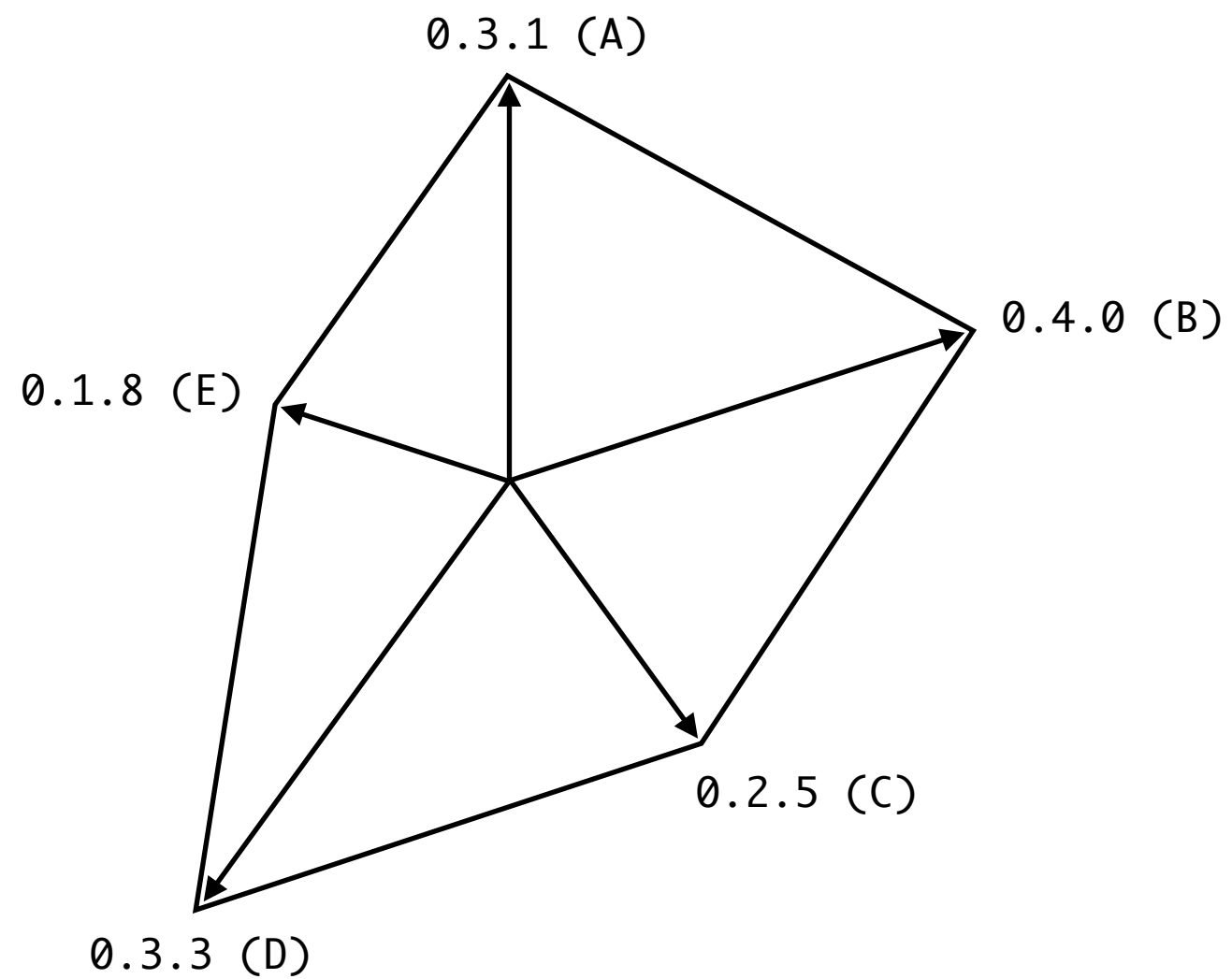
my-repo (increment-by-one)



my-repo (increment-by-one)

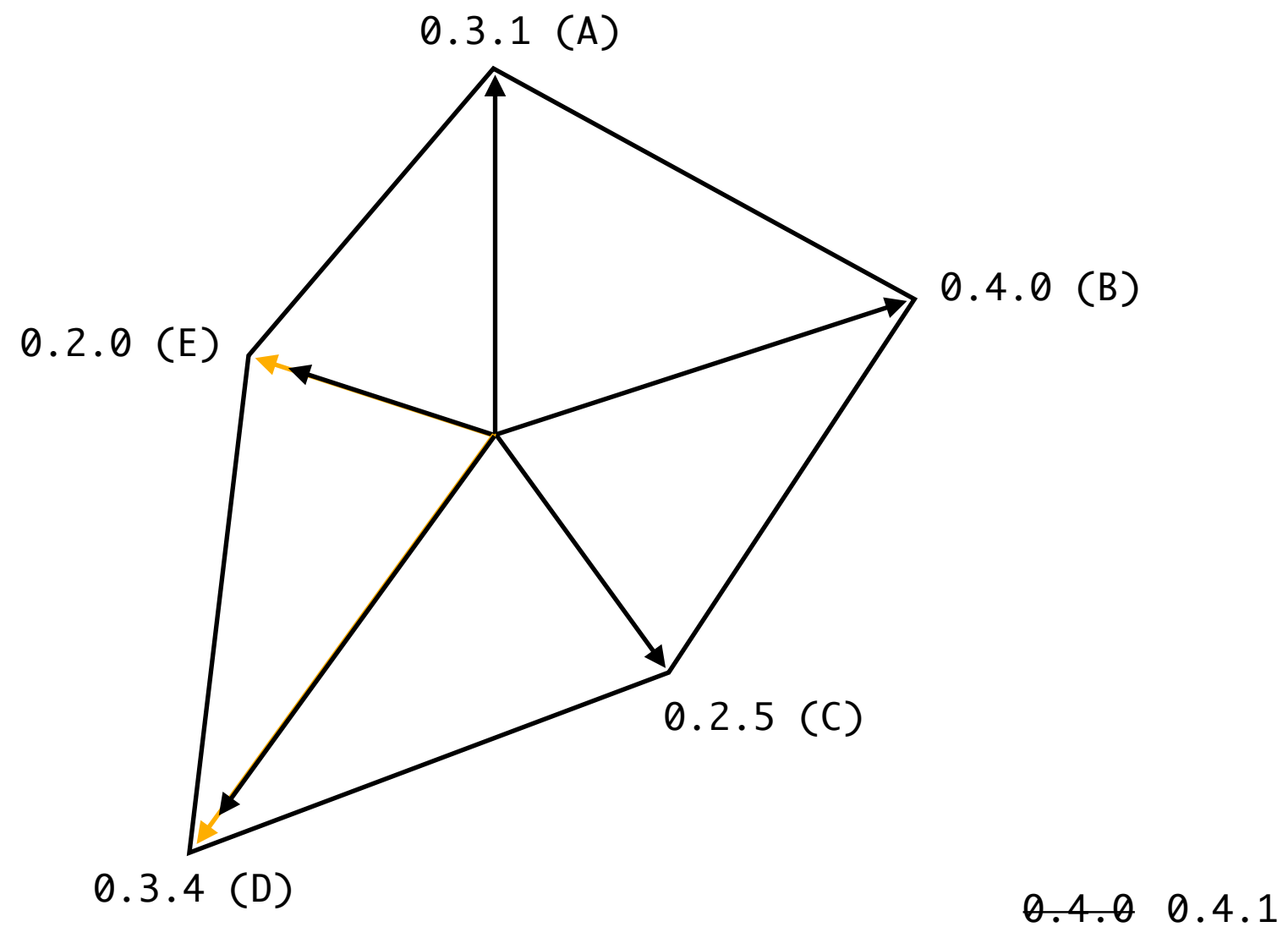


my-repo (highest-version, case 1)

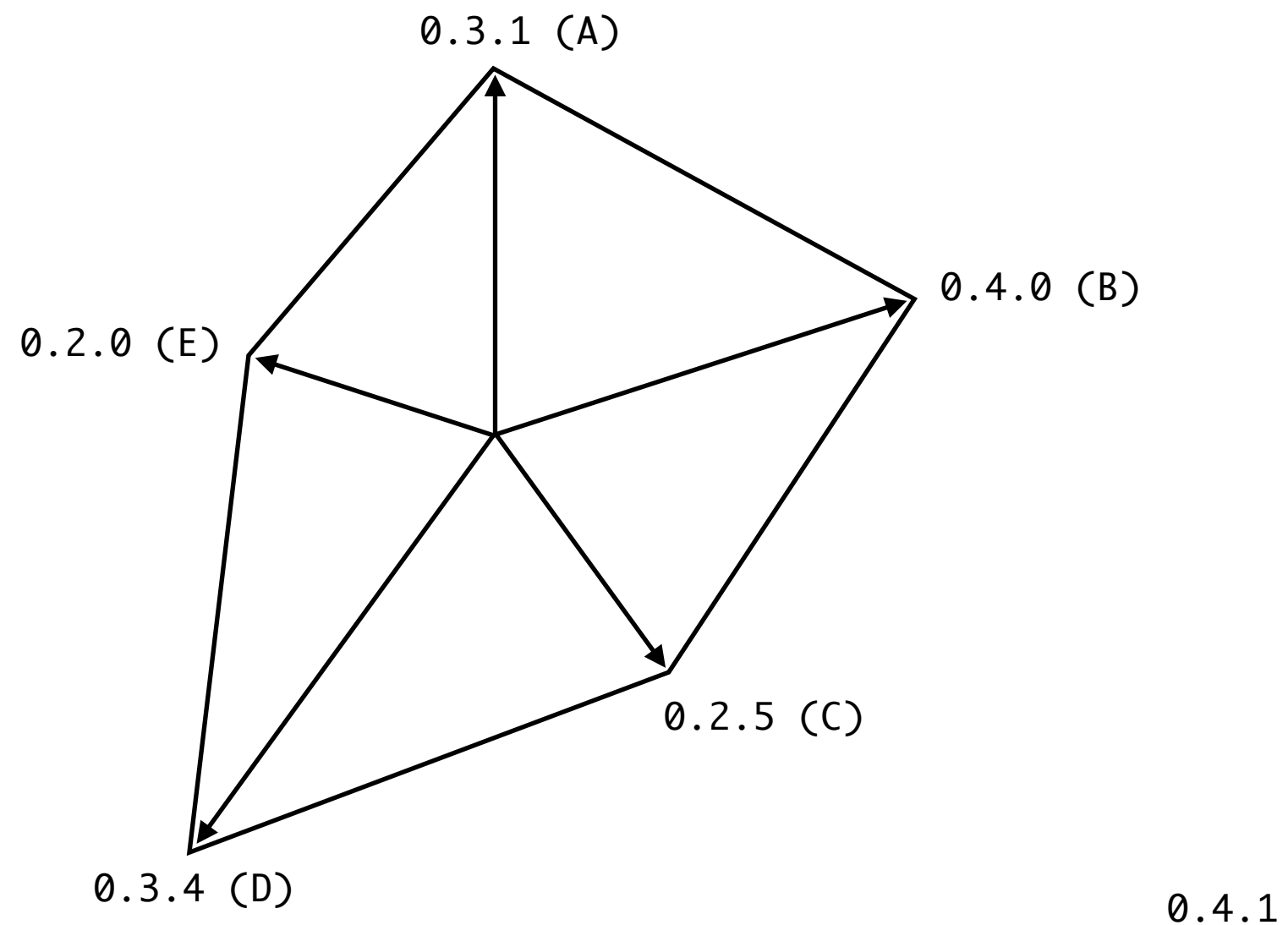


0.4.0

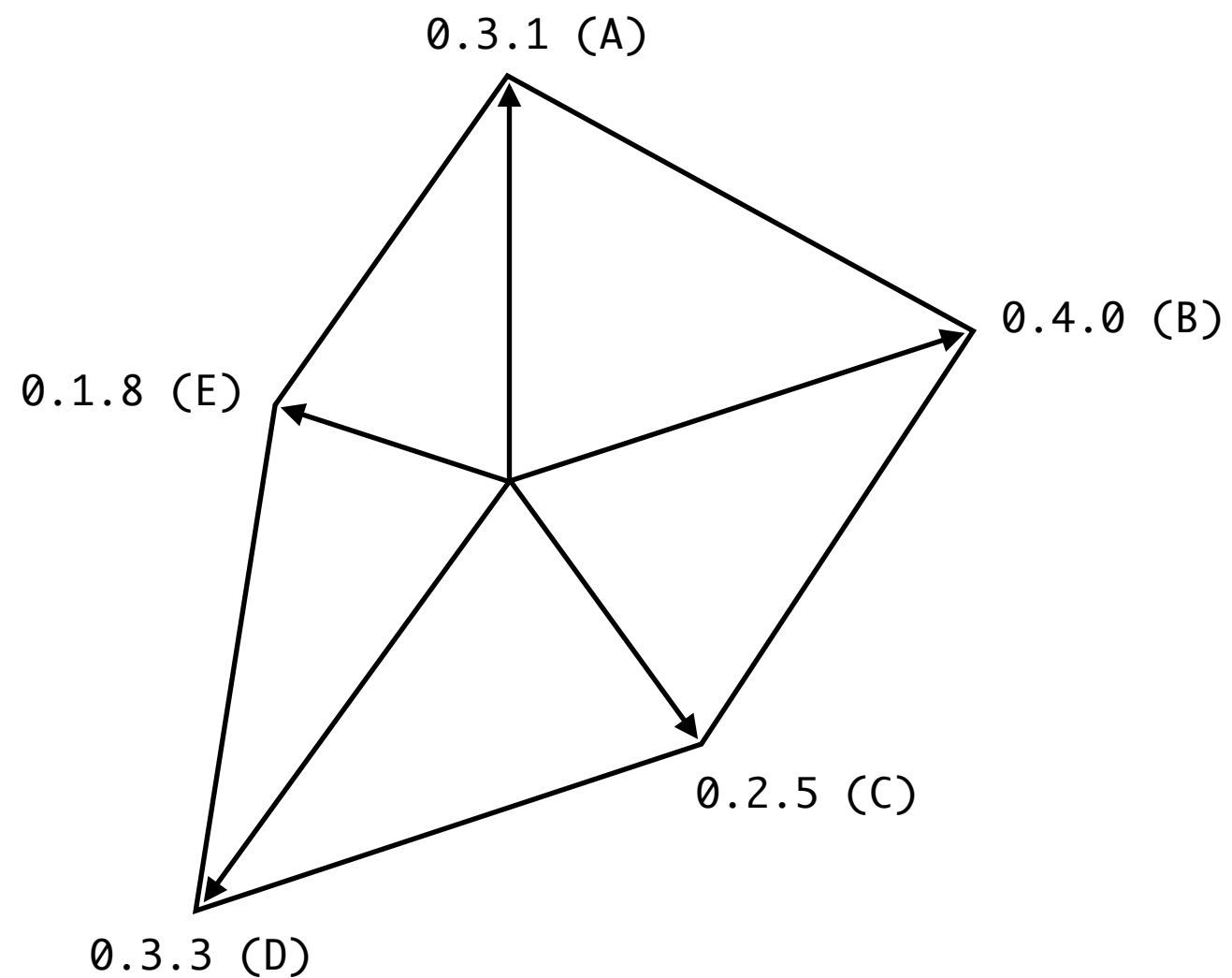
my-repo (highest-version, case 1)



my-repo (highest-version, case 1)

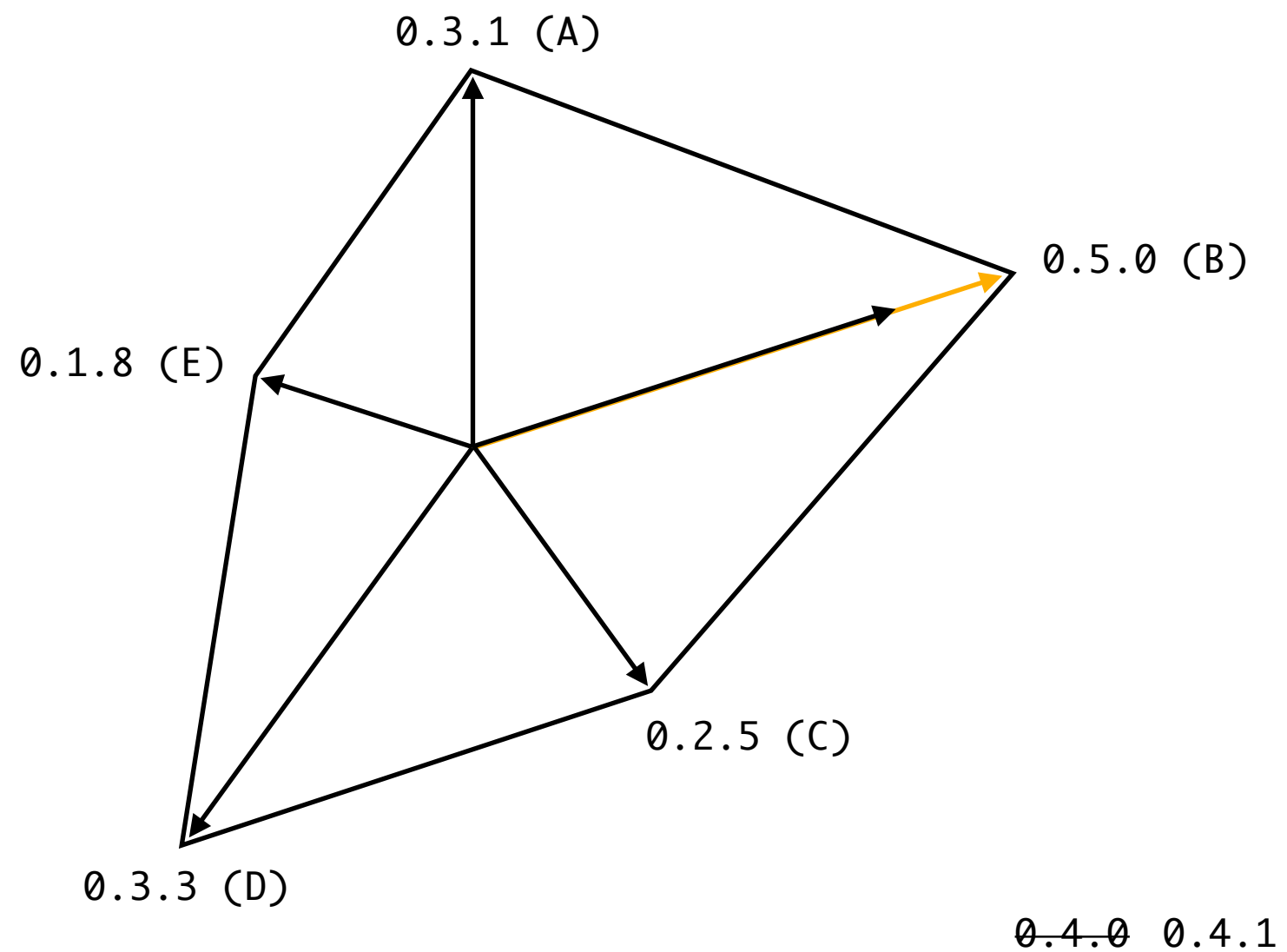


my-repo (highest-version, case 2)

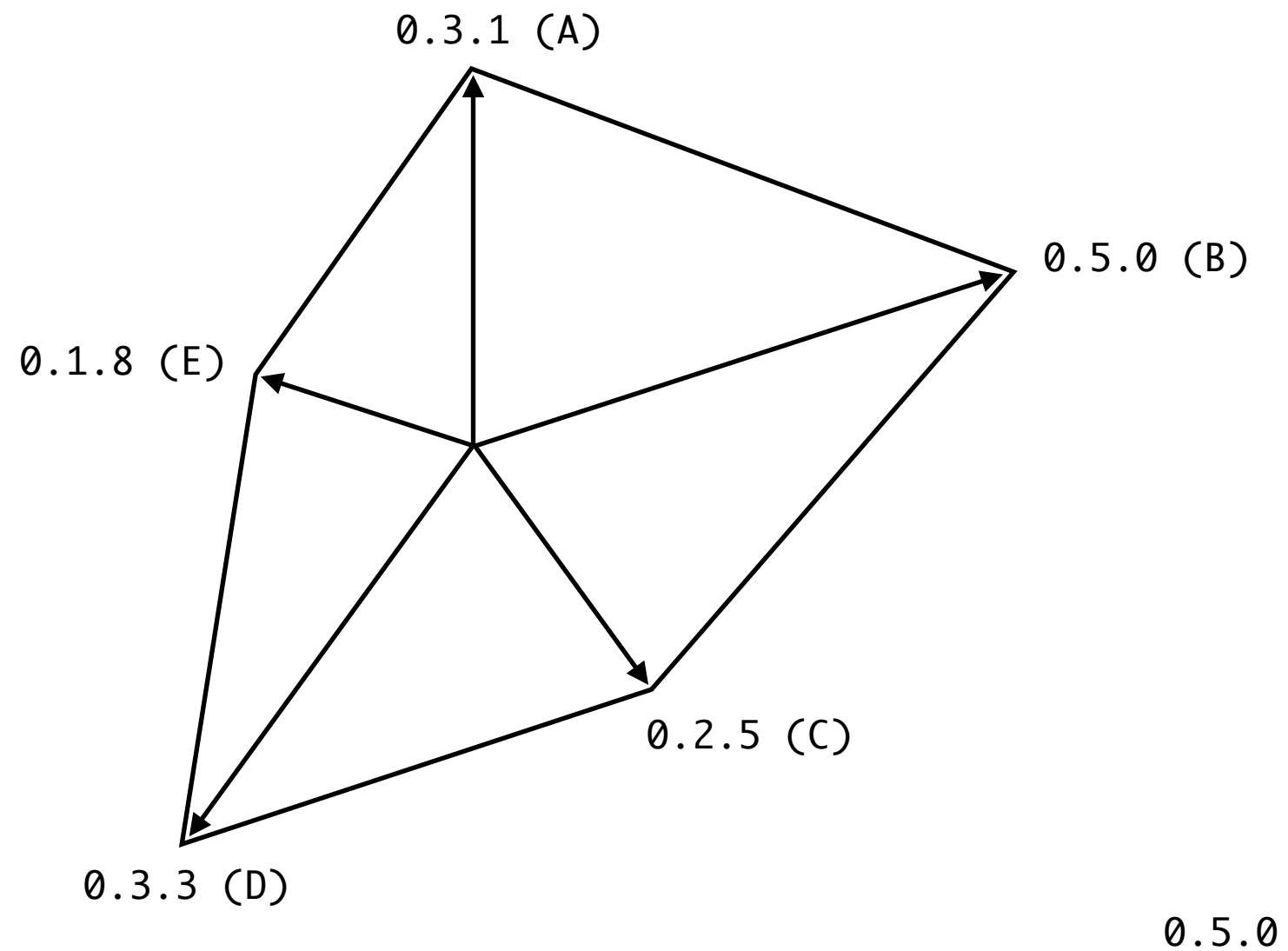


0.4.0

my-repo (highest-version, case 2)



my-repo (highest-version, case 2)



update version

Get started:

```
pnpm add update-workspace-root-version
```

github.com/ijlee2/update-workspace-root-version

my-repo

docs-app



packages



test-app

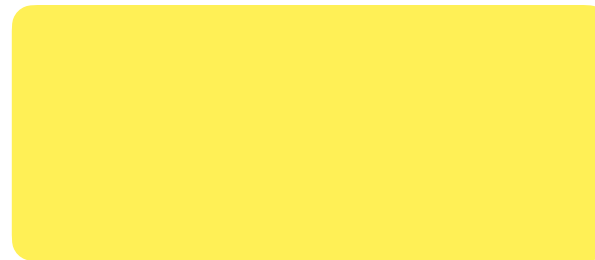


my-repo

docs-app



packages

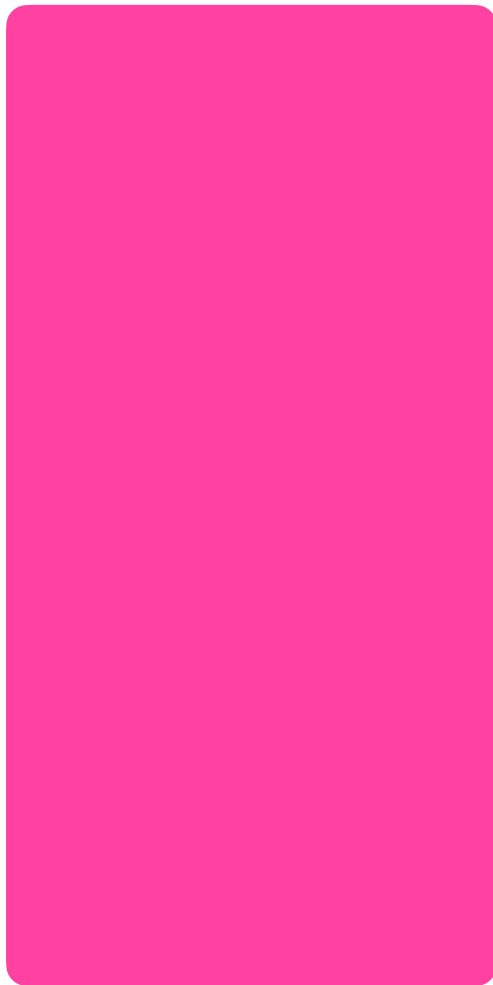


test-app

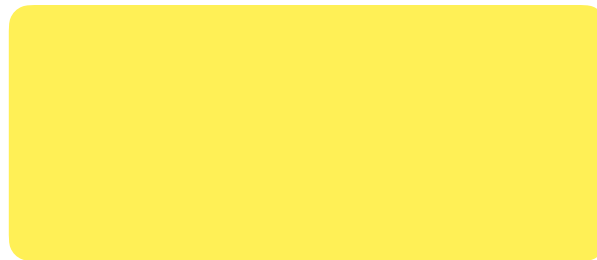


my-repo

docs-app



packages



⋮

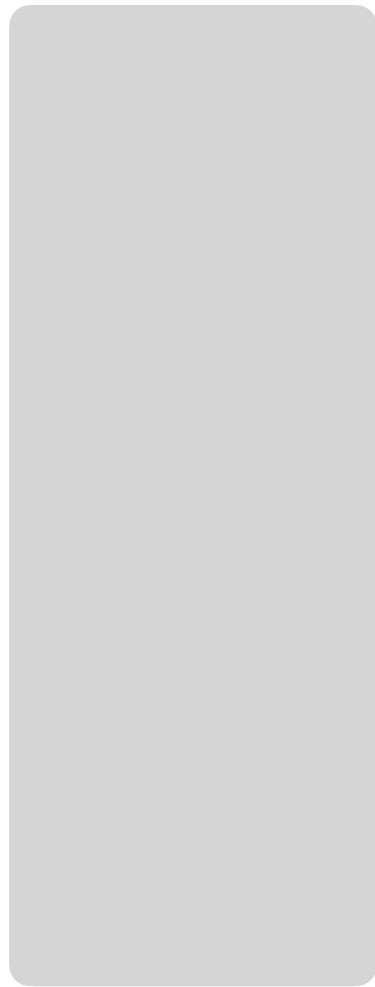


test-app



my-repo

blueprint



docs-app



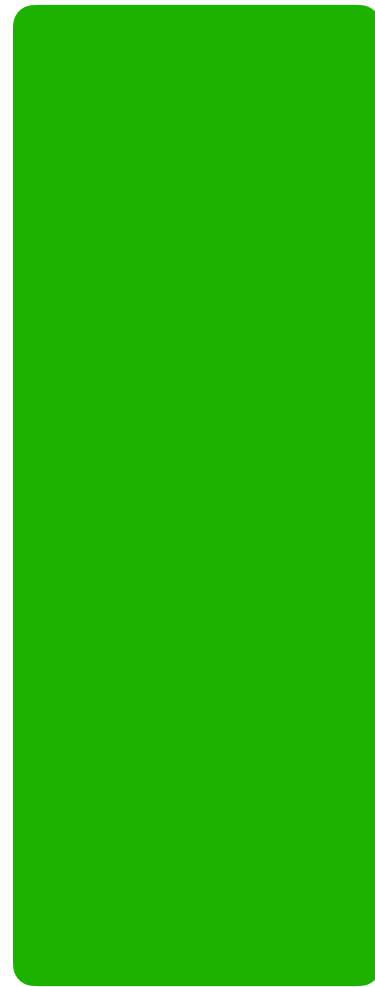
packages



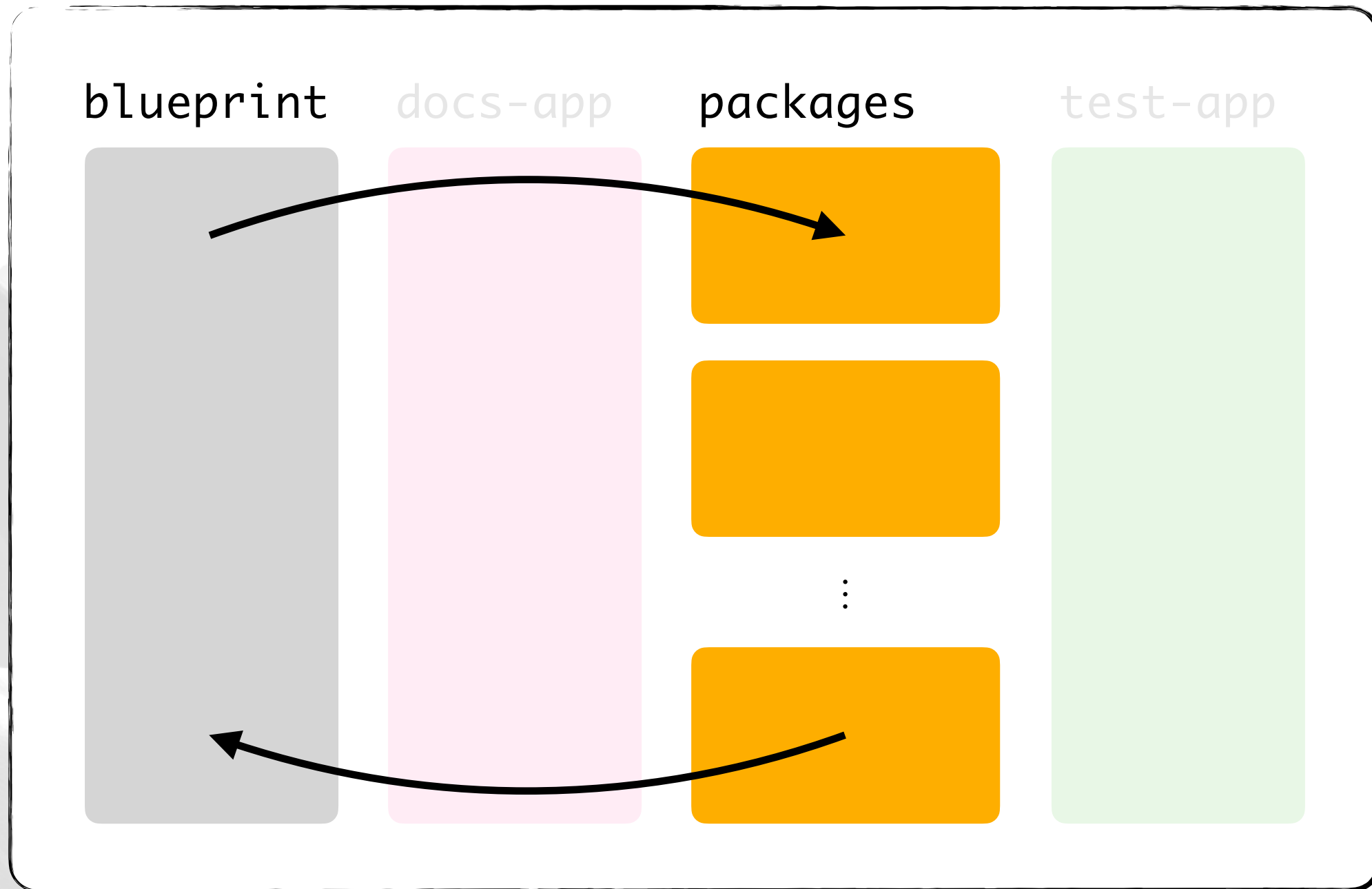
⋮



test-app



my-repo





2_b

**fruits of
labor**

in 2 years

	July 1, 2022	July 1, 2023	July 1, 2024
<i>Packages</i>	187		
<i>Packages</i> <i>(new repo)</i>	-		
<i>Ember</i>	3.28.6		
<i>CI</i> <i>(min)</i>	33		

in 2 years

	July 1, 2022	July 1, 2023	July 1, 2024
<i>Packages</i>	187	150	
<i>Packages</i> <i>(new repo)</i>	-	6	
<i>Ember</i>	3.28.6	3.28.11	
<i>CI</i> <i>(min)</i>	33	21	

in 2 years

	July 1, 2022	July 1, 2023	July 1, 2024
<i>Packages</i>	187	150	109
<i>Packages</i> <i>(new repo)</i>	-	6	27
<i>Ember</i>	3.28.6	3.28.11	5.8.0
<i>CI</i> <i>(min)</i>	33	21	14

new repo

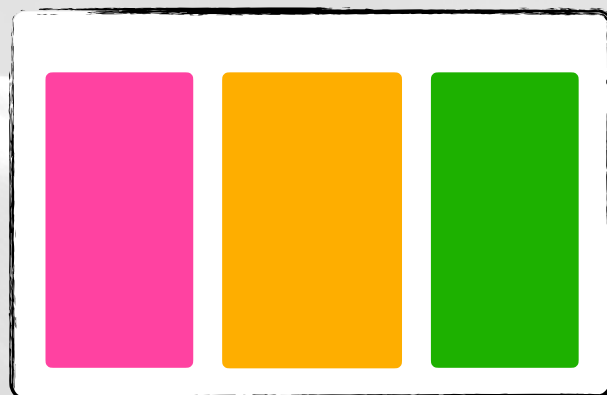
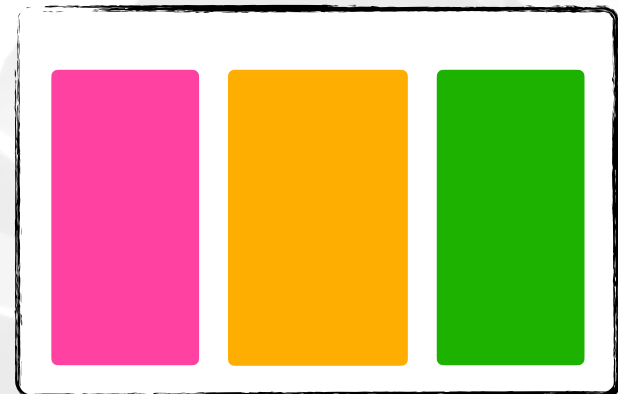
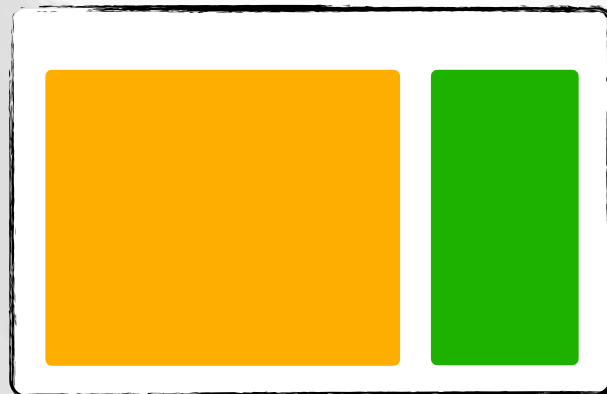
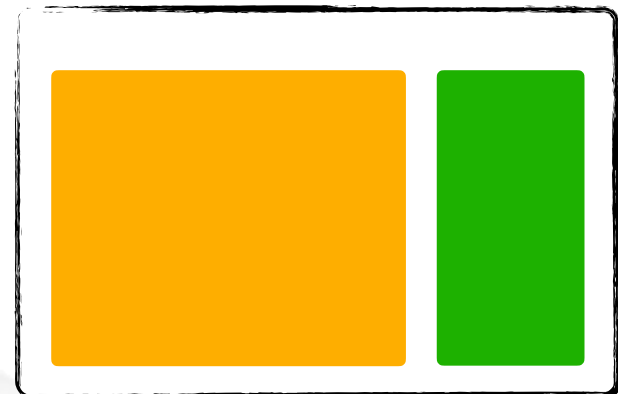
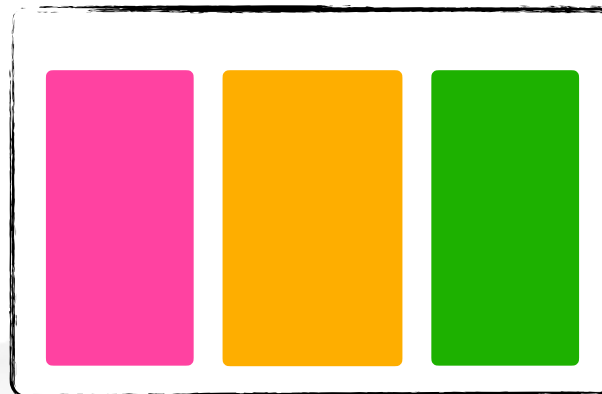
- *Forward-compatible code*
- *Feedback from designers and managers*
- *Few Percy snapshots that check "all" cases*
- *"Naive" CI in 4.5 min, publish in 3 min*
- *Discover and share conventions for Ember*



3

**moving
many repos**

all-our-repos



create repo

Get started:

```
npx create-v2-addon-repo my-repo
```

github.com/ijlee2/embroider-toolbox

create addon

Get started:

```
pnpm addon new ui-form
```

github.com/ijlee2/embroider-toolbox

create files

Get started:

```
pnpm addon g component ui/form/input
```

github.com/ijlee2/embroider-toolbox

remove files

Get started:

```
pnpm addon d component ui/form/input
```

github.com/ijlee2/embroider-toolbox

update blueprints

Get started:

```
pnpm update-blueprints --to 0.5.0
```

github.com/ijlee2/embroider-toolbox

more problems

- *Auto-sync reference repo for blueprints¹*
- *Limit complexity²*
- *Document v2 addons in an accessible way*
- *Rethink how we do blueprints³*

1. With `git sparse-checkout`.

2. `bun/npm/pnpm/yarn` × `JS/TS` × `Vite/Webpack` = 16 variations, 256 times the current cost!

3. With packages from `@codemod-utils`.



moving mountains

github.com/ijlee2