



CLEAN ARCHITECTURE

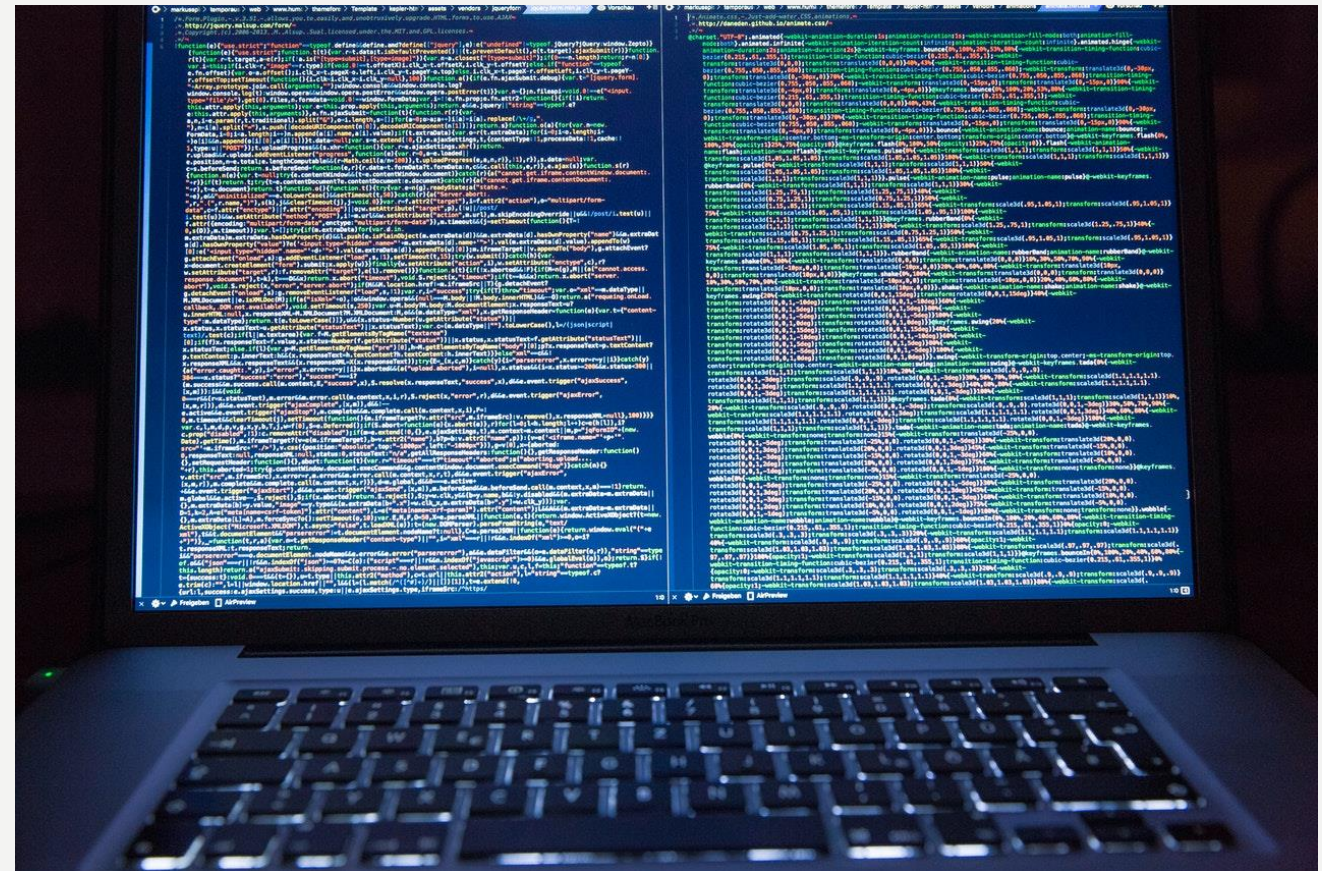
FIND YOUR CODE WITHOUT HEADACHE

WORKING ON PROJECTS

- Clone **repository**
- Read the **README** file
- **Start project**
- Understand the **usecase**
- **Find the code**

CLONE REPOSITORY

- ✓ • Clone repository
- Read the **README** file
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README

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```
1 # The best README template
2
3 ## Installation
4
5 ## Usage
6
7 ## Developing
8
9 ## Docker
10
11 ## Releasing
12
13 ## Continuous Integration
14
15 ## Changelog
```

START PROJECT

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Developer tools errors

```
rogram Files\nodejs\node_modules\npm\node_modules\npm-lifecycle\node-gyp-bin\\...\node_modules\nod
-gyp.js" rebuild ) else (node "D:\Program Files\nodejs\node_modules\npm\node_modules\node-gyp\bin\n
build )
Building the projects in this solution one at a time. To enable parallel build, please add the "/m"
MSBUILD : error MSB3428: Could not load the Visual C++ component "VCBuild.exe". To fix this, 1) inst
Framework 2.0 SDK, 2) install Microsoft Visual Studio 2005 or 3) add the location of the component t
path if it is installed elsewhere. [C:\Users\Administrator\Documents\GitHub\gpsfaker\node_modules\s
nding.sln]
gyp ERR! build error
gyp ERR! stack Error: `C:\Windows\Microsoft.NET\Framework\v4.0.30319\msbuild.exe` failed with exit c
gyp ERR! stack at ChildProcess.onExit (D:\Program Files\nodejs\node_modules\npm\node_modules\nod
d.js:258:23)
gyp ERR! stack at ChildProcess.emit (events.js:182:13)
gyp ERR! stack at Process.ChildProcess._handle.onexit (internal/child_process.js:237:12)
gyp ERR! System Windows_NT 6.1.7601
gyp ERR! command "D:\\Program Files\\nodejs\\node.exe" "D:\\Program Files\\nodejs\\node_modules\\npm
\\node-gyp\\bin\\node-gyp.js" "rebuild"
gyp ERR! cwd C:\Users\Administrator\Documents\GitHub\gpsfaker\node_modules\sharp
gyp ERR! node -v v10.7.0
gyp ERR! node-gyp -v v3.6.2
```

<https://blog.csdn.net/feinifi>

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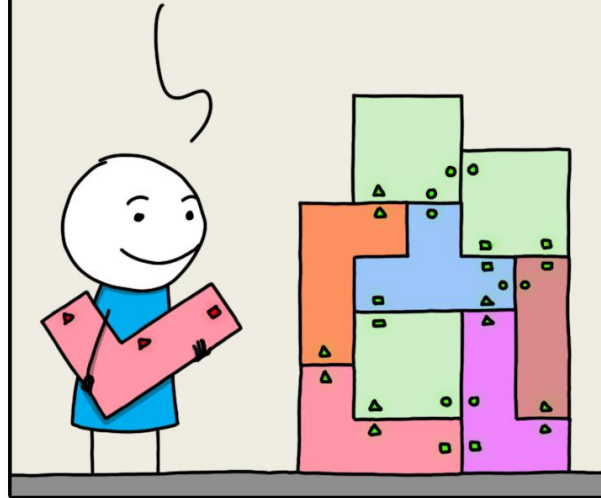
Install dependencies errors

```
npm ERR! code ERESOLVE
npm ERR! ERESOLVE unable to resolve dependency tree
npm ERR!
npm ERR! While resolving: gf-kautomata-pipeline-ui@0.0.0
npm ERR! Found: @angular/core@9.1.12
npm ERR! node_modules/@angular/core
npm ERR!   @angular/core@"^9.1.4" from the root project
npm ERR!
npm ERR! Could not resolve dependency:
npm ERR! peer @angular/core@"7.2.16" from @angular/http@7.2.16
npm ERR! node_modules/@angular/http
npm ERR!   @angular/http@"^7.2.11" from the root project
npm ERR!
npm ERR! Fix the upstream dependency conflict, or retry
npm ERR! this command with --force, or --legacy-peer-deps
npm ERR! to accept an incorrect (and potentially broken) dependency resolution.
```

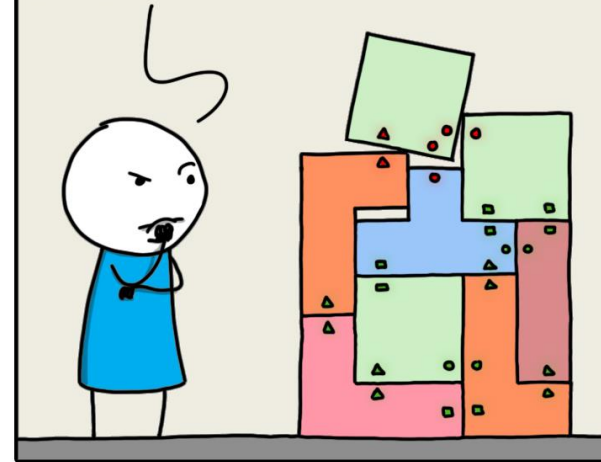

UPDATE

MONKEYUSER.COM

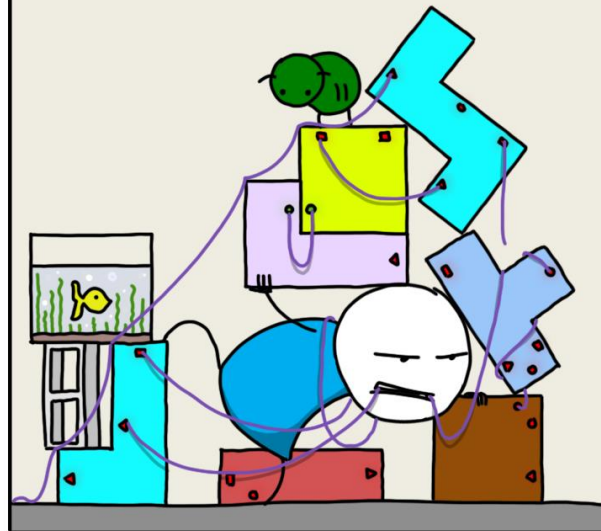
NOTHING BETTER THAN KEEPING
YOUR LIBRARIES UP TO DATE



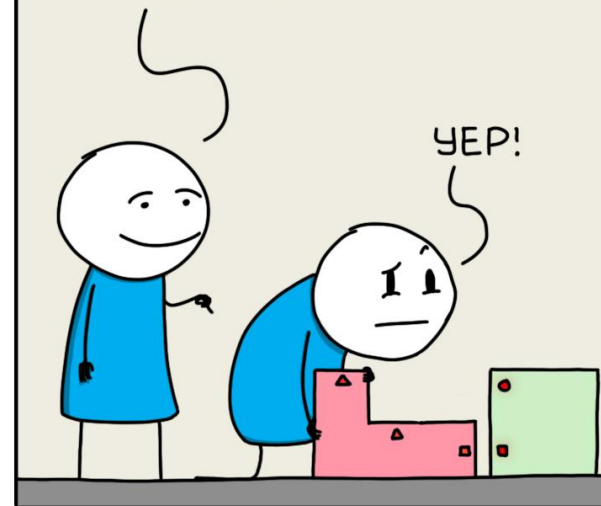
LOOKS LIKE A COMPATIBILITY
ISSUE! BETTER UPDATE THE
OTHERS TOO!



MANY HOURS LATER...



ARE YOU SETTING UP
A NEW PROJECT?



START PROJECT

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WTF errors

```
npm ERR! code ELIFECYCLE
npm ERR! application-name@0.0.1 start: `node app.js`
npm ERR! Exit status 1
npm ERR!
npm ERR! Failed at the application-name@0.0.1 start script 'node app.js'.
npm ERR! This is most likely a problem with the application-name package,
npm ERR! not with npm itself.
npm ERR! Tell the author that this fails on your system:
npm ERR!     node app.js
npm ERR! You can get information on how to open an issue for this project with:
npm ERR!     npm bugs application-name
npm ERR! Or if that isn't available, you can get their info via:
npm ERR!
npm ERR!     npm owner ls application-name
npm ERR! There is likely additional logging output above.

npm ERR! Please include the following file with any support request:
```


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Infrastructure errors

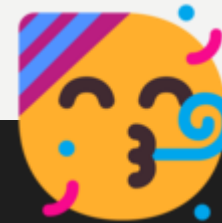


DATABASE ERROR

START PROJECT

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Starting...

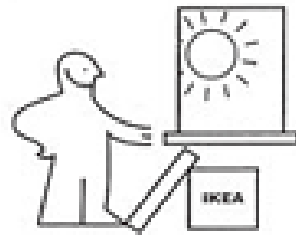


```
turbo-demo on  main [X!?] via  v16.13.2 took 10s
> npm run dev

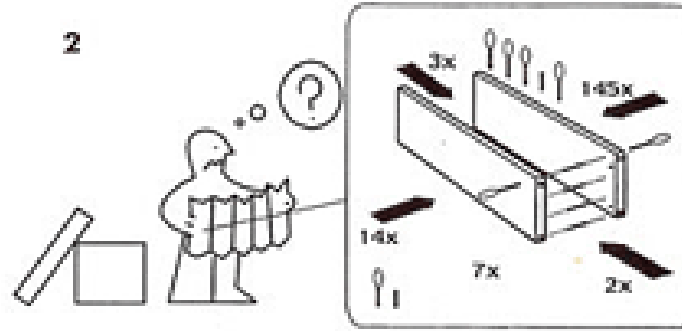
> turborepo-basic-shared@0.0.0 dev
> turbo run dev --parallel

• Packages in scope: config, docs, tsconfig, ui, web, web-cypress
• Running dev in 6 packages
web:dev: cache miss, executing b545e248cd48f95f
docs:dev: cache miss, executing 8feaffd1960b8079
docs:dev: yarn run v1.22.4
web:dev: yarn run v1.22.4
docs:dev: $ next dev --port 3001
web:dev: $ next dev
docs:dev: ready - started server on 0.0.0.0:3001, url: http://localhost:3001
web:dev: ready - started server on 0.0.0.0:3000, url: http://localhost:3000
docs:dev: info - automatically enabled Fast Refresh for 1 custom loader
web:dev: info - automatically enabled Fast Refresh for 1 custom loader
docs:dev: event - compiled client and server successfully in 712 ms (158 modules)
web:dev: event - compiled client and server successfully in 725 ms (158 modules)
[]
```

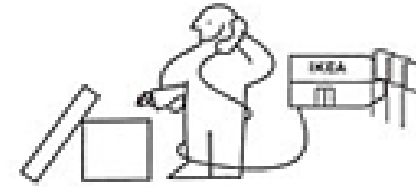
1



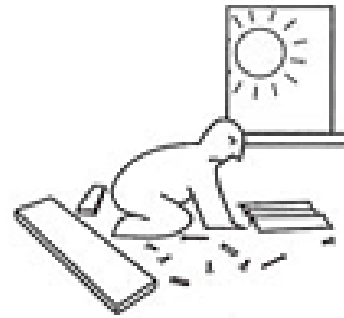
2



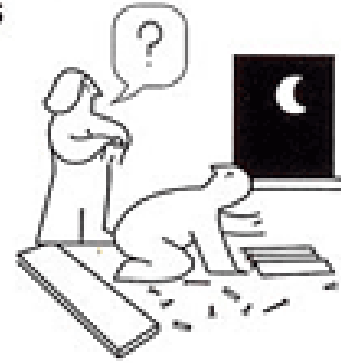
3



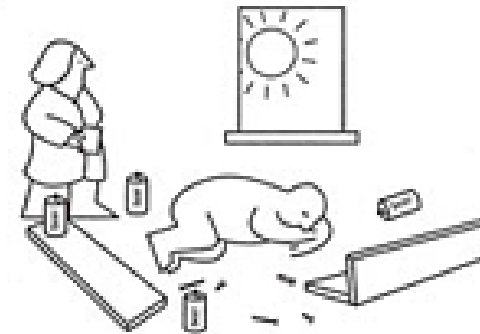
4



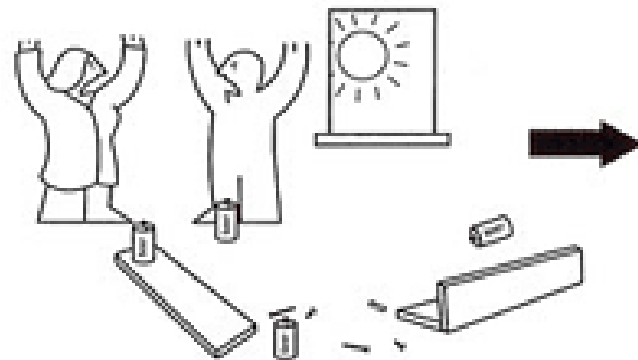
5



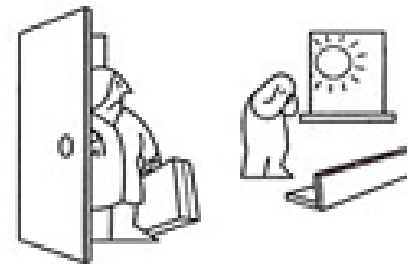
6



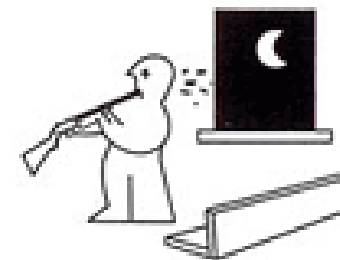
7



8

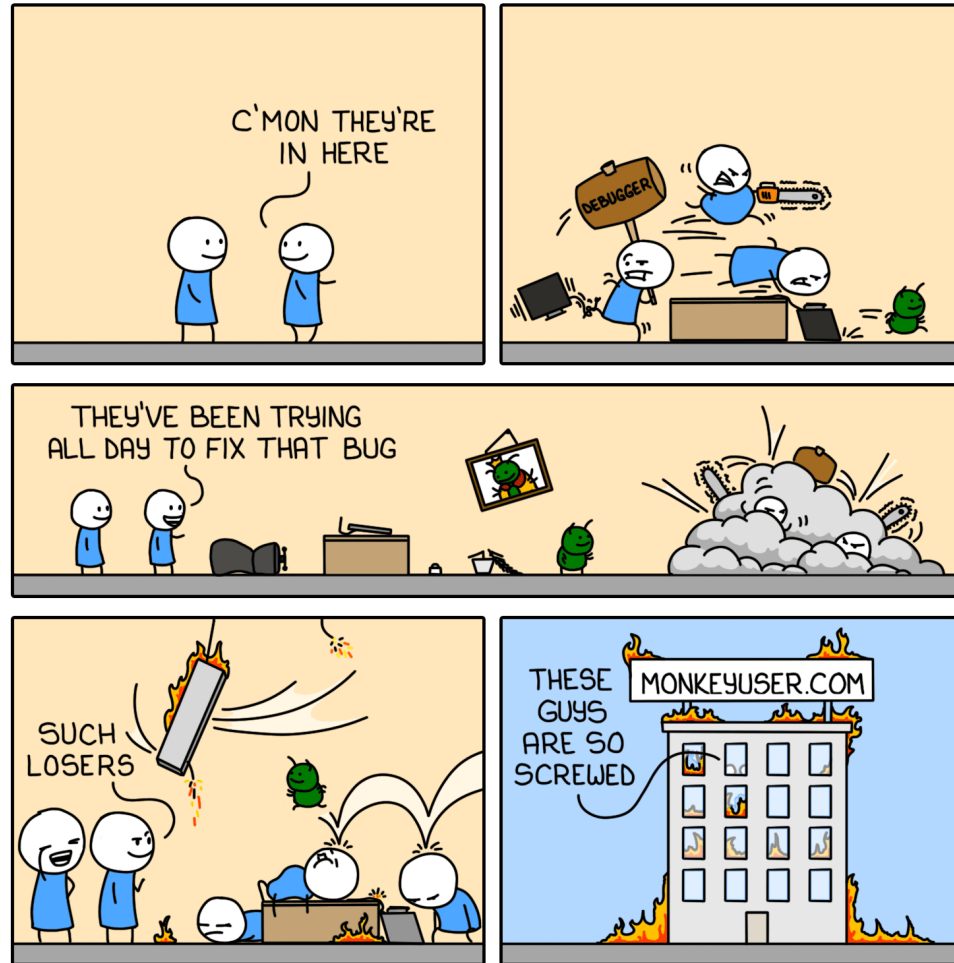


9



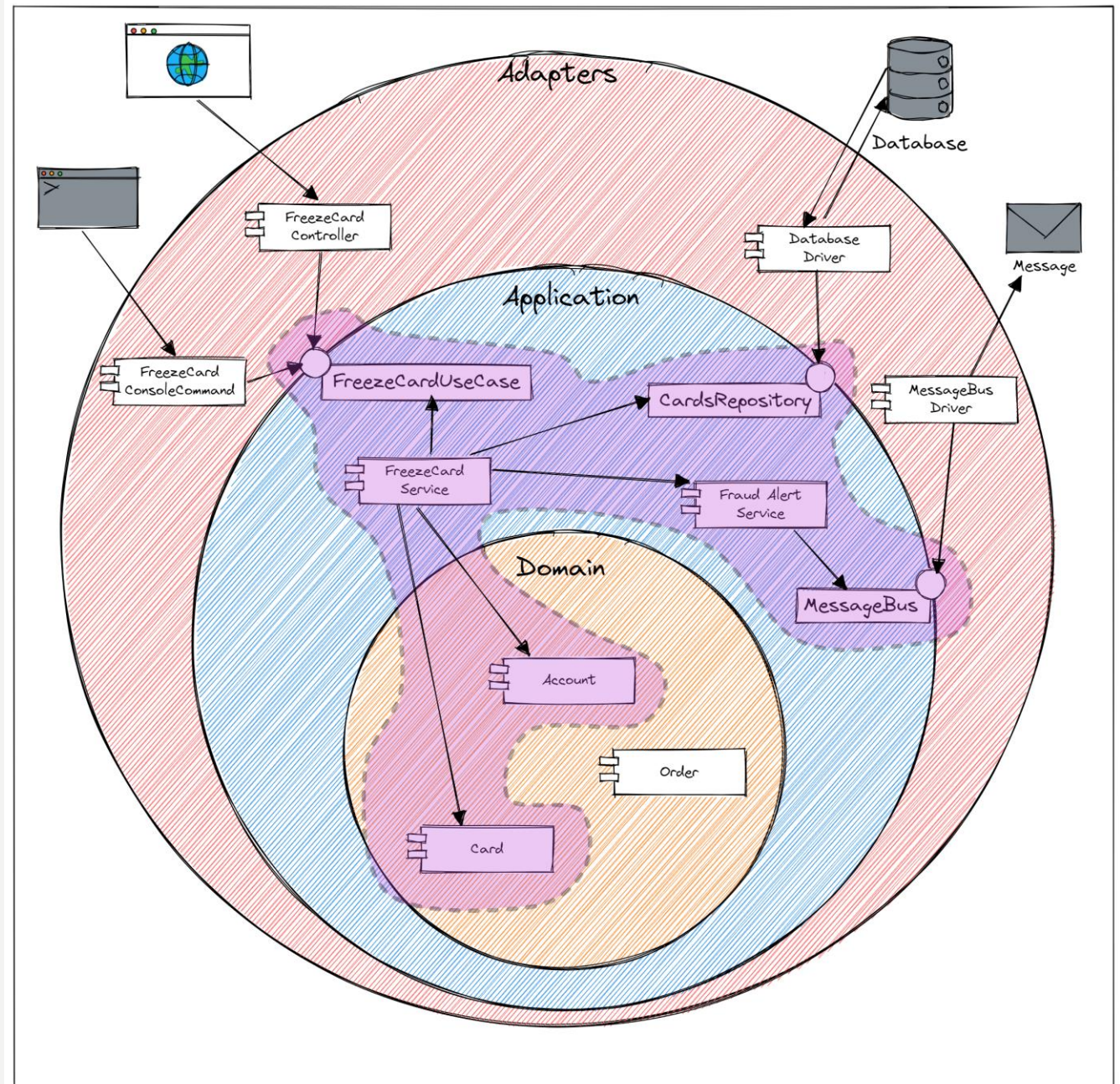
STARTS LOOKING AT THE CODE

TRIBALISM



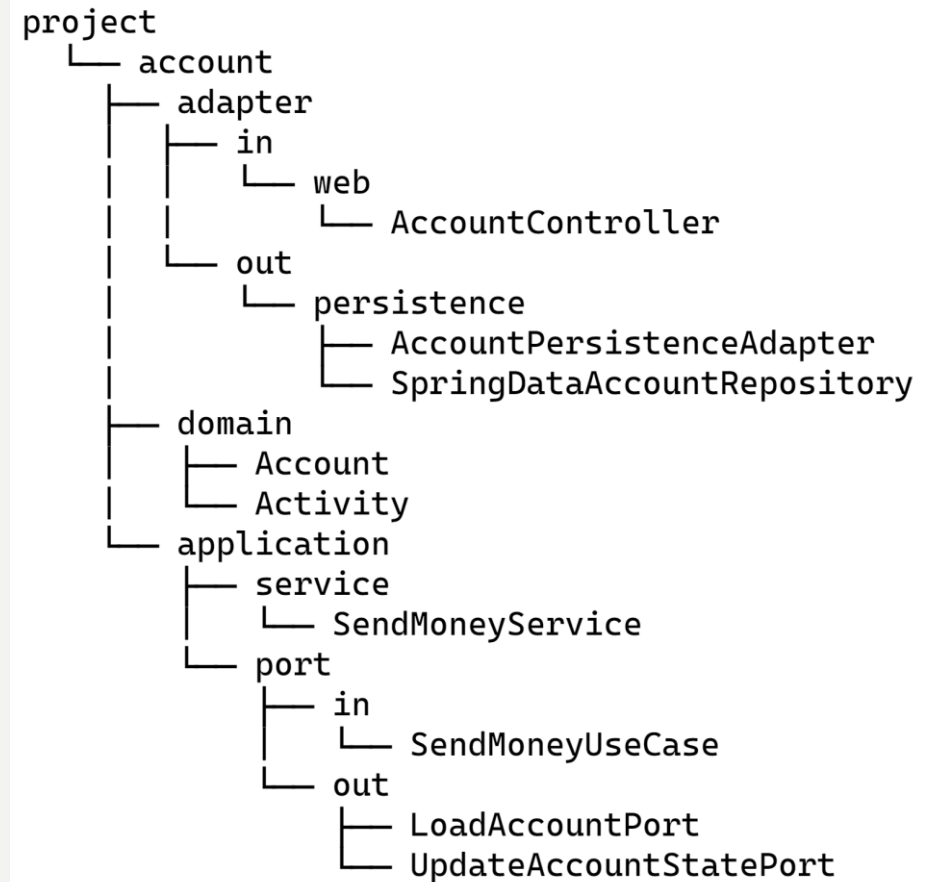
USECASE

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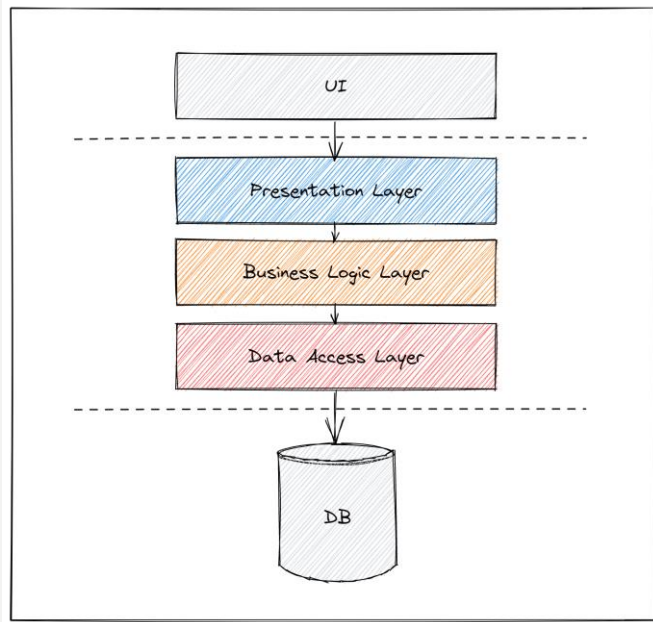
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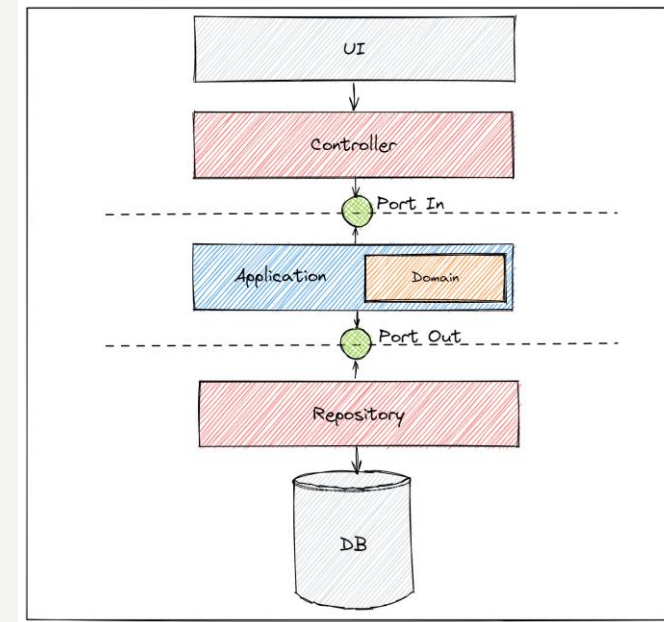


ARCHITECTURE

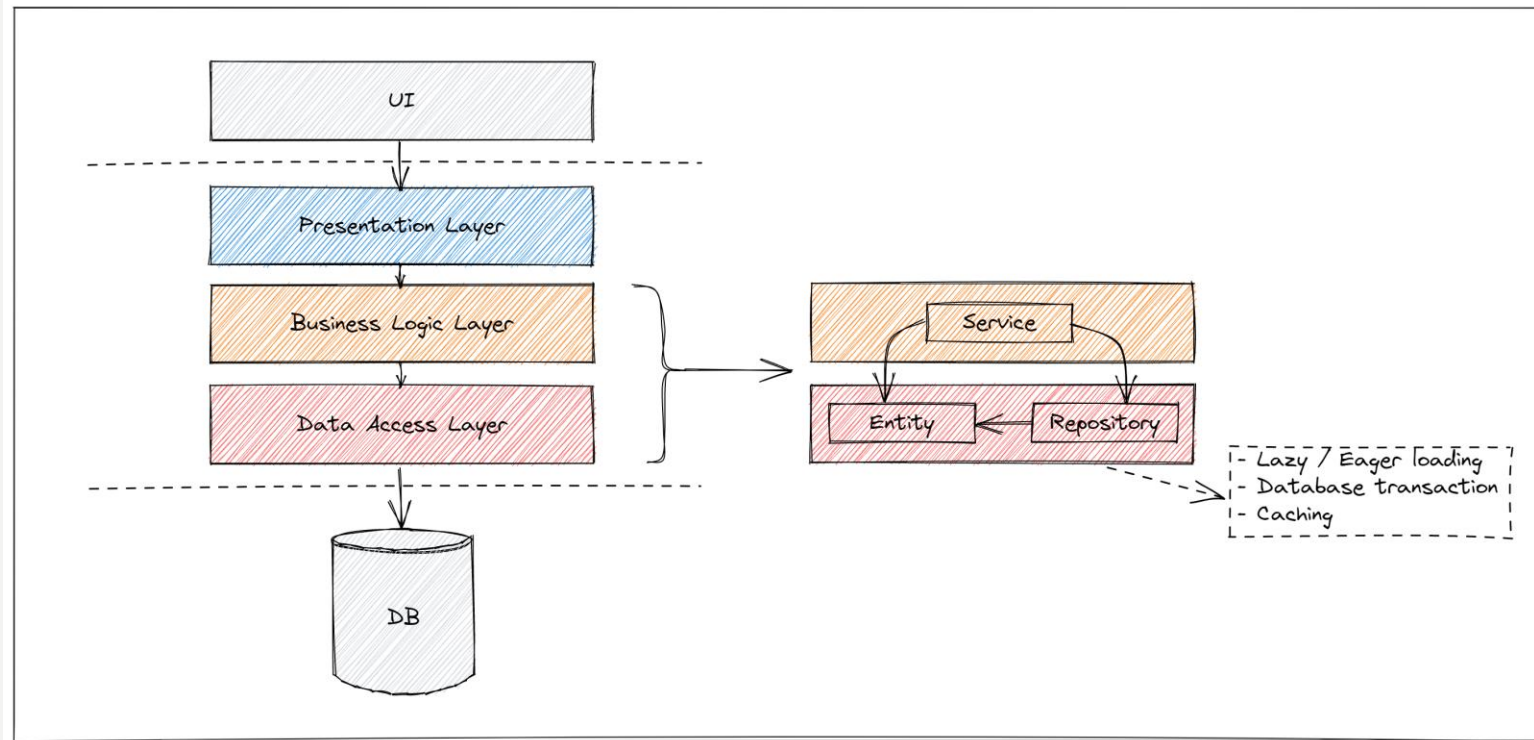
THREE LAYER ARCHITECTURE



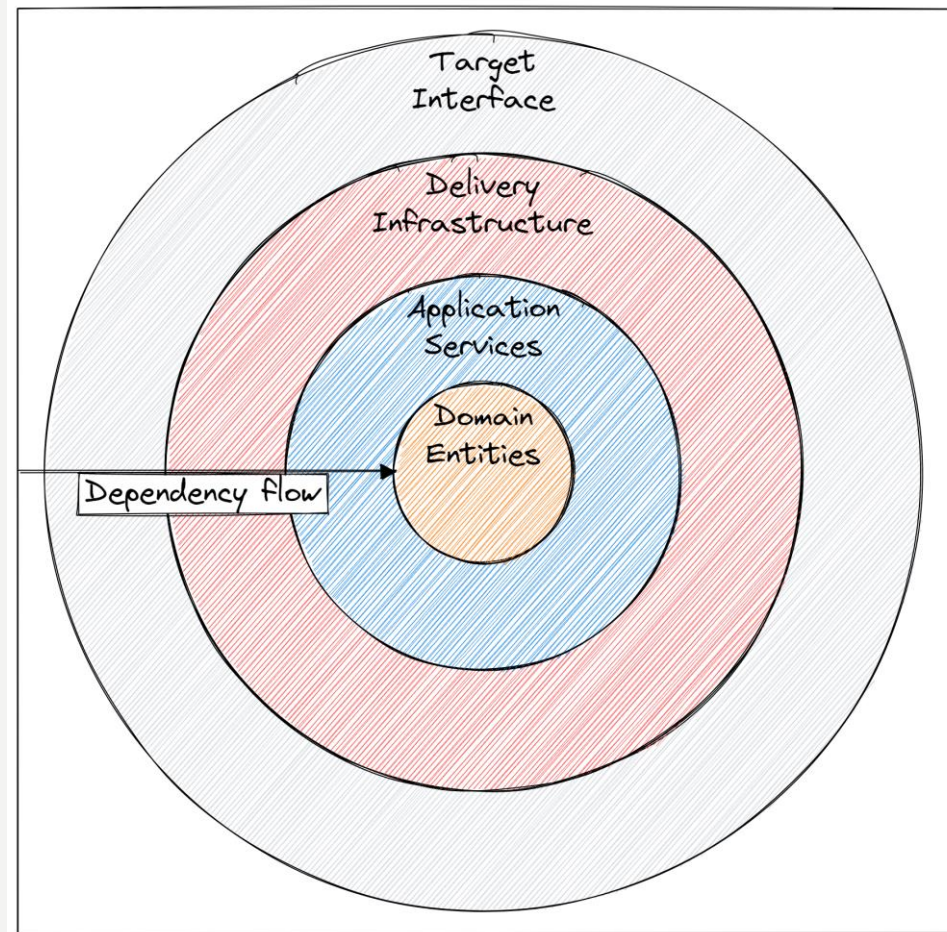
CLEAN ARCHITECTURE



THREE LAYER ARCHITECTURE

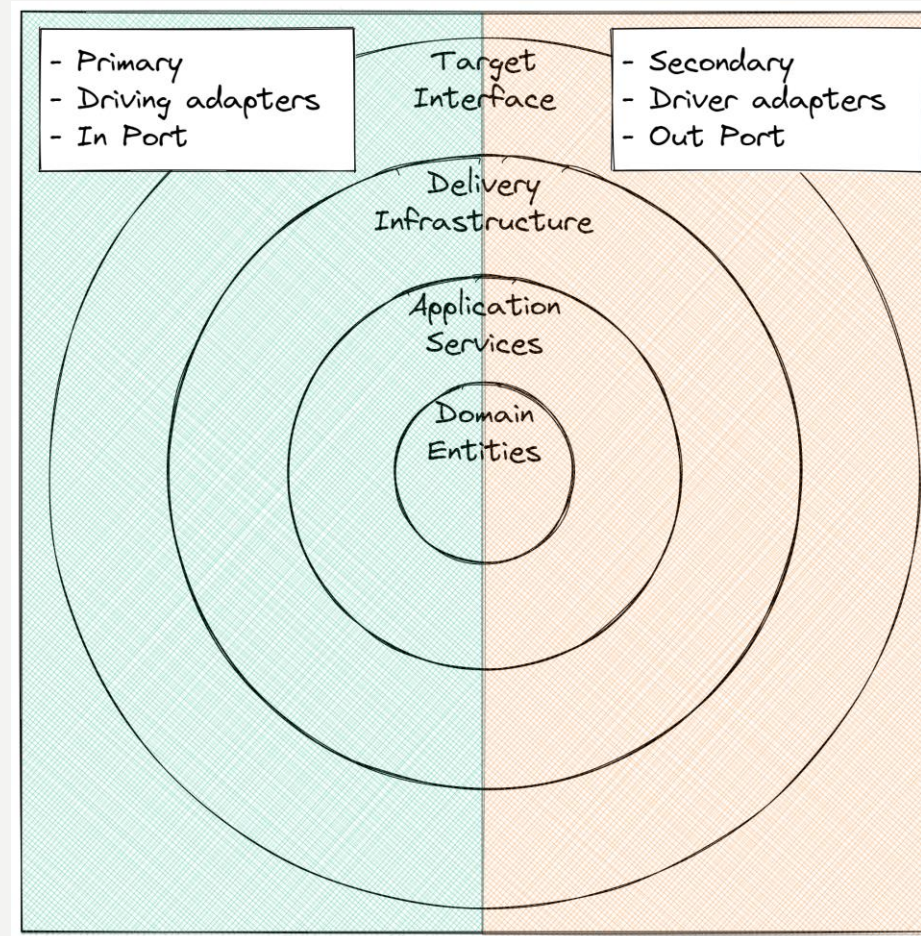


CLEAN ARCHITECTURE (1/4)



CLEAN ARCHITECTURE (2/4)

In Port

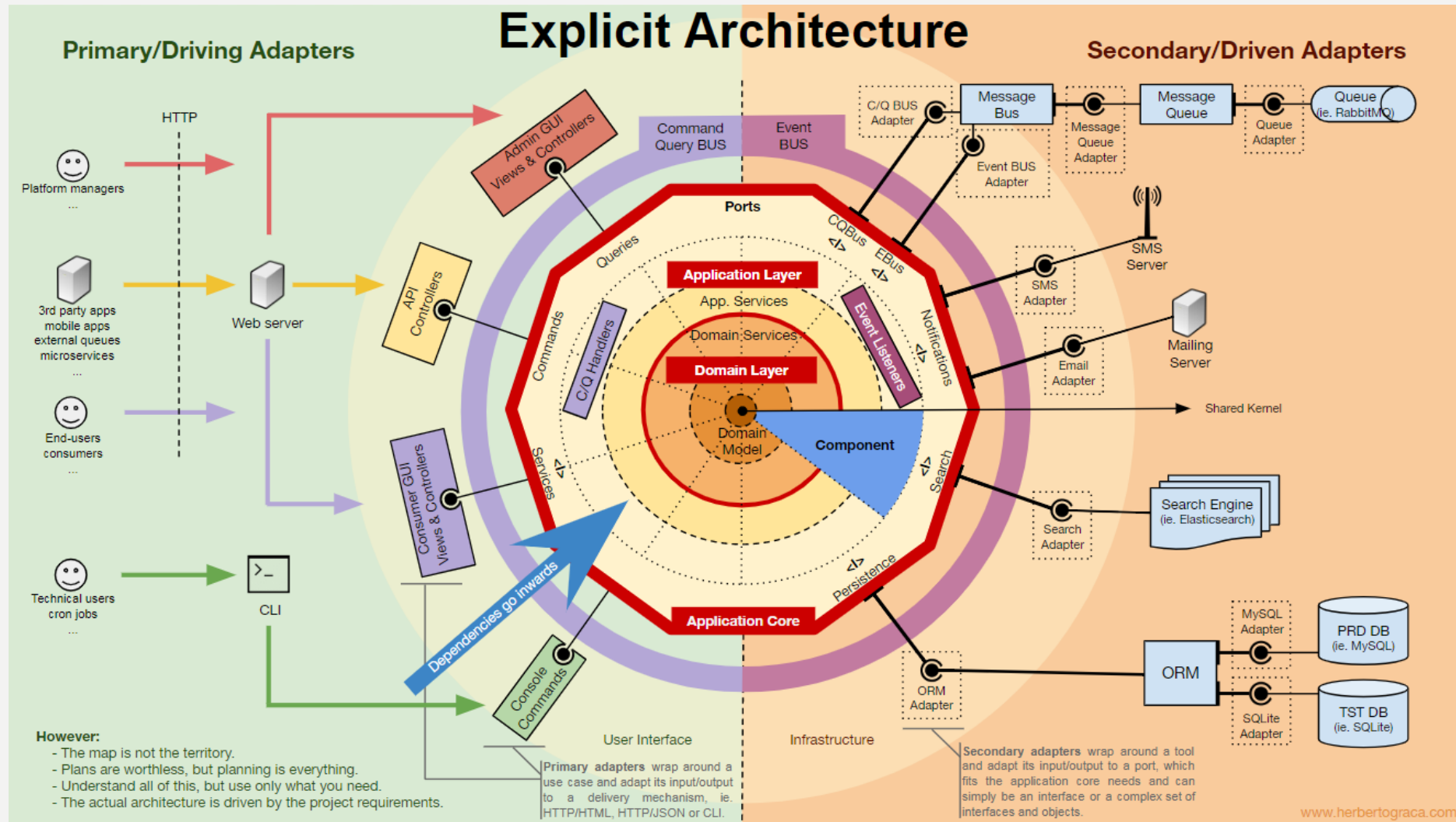


Out Port

CLEAN ARCHITECTURE [3/4]

- Hexagonal architecture
- Port and Adapter
- Clean architecture
- Onion architecture
- Adapter
- In port / out port
- Infrastructure
- Interactor
- Use case
- Context boundary
- Context map
- Shared kernel
- CQRS
- Event Sourcing
- ...

CLEAN ARCHITECTURE [4/4]



IS IT SUITABLE FOR FRONTEND? (1/3)

Yes!

```
✓ src
  > application
  > domain
  > services
  ✓ ui
    > Auth
    > Buy
    > Cart
    > Cookie
    > Front
    > Header
    > Orders
    > Profile
    > User
  TS App.tsx
  # index.css
  TS index.tsx
  TS react-app-env.d.ts
  TS shared-kernel.d.ts
```

IS IT SUITABLE FOR FRONTEND? (2/3)

Architecture

All our products are implemented with Clean Architecture and MVVM. We use the Flow Coordinator to present the flow of the screens, and life cycle behaviors that help us implement reusable View Controller behaviors.

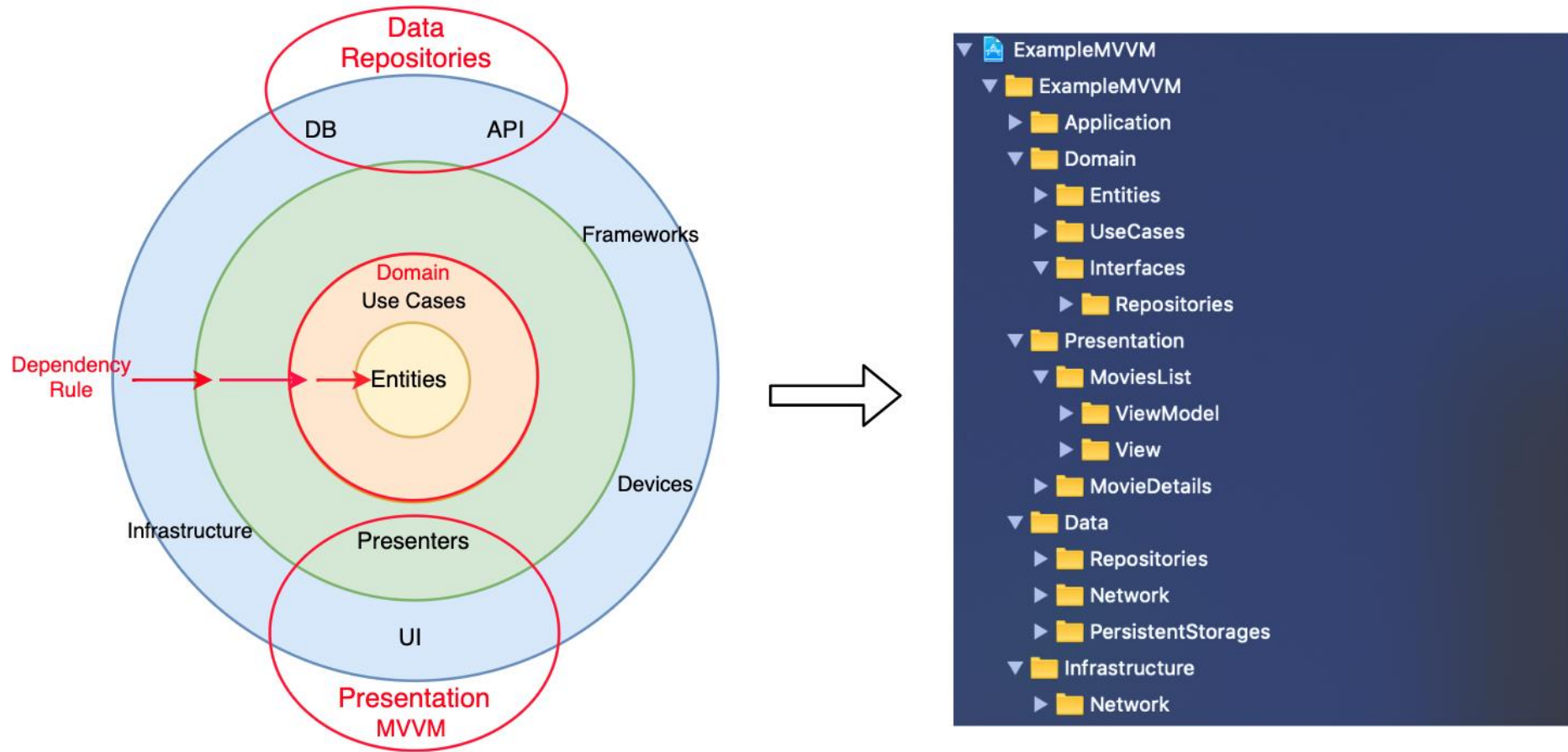
Our apps are not monolithic. Currently we have around 60 modules. They include shared modules such as the core module, UI components modules, the chat module, and feature modules like trading, payments, credit, cards. All our apps and shared modules are stored in a single repository, Monorepo.



<https://medium.com/revolut/the-fundamentals-of-ios-at-revolut-57422078c903>

IS IT SUITABLE FOR FRONTEND? (3/3)

Clean Architecture + MVVM





QUESTIONS?

David Nussio
software engineer @ EOC

 davidnussio

 @davidnussio

