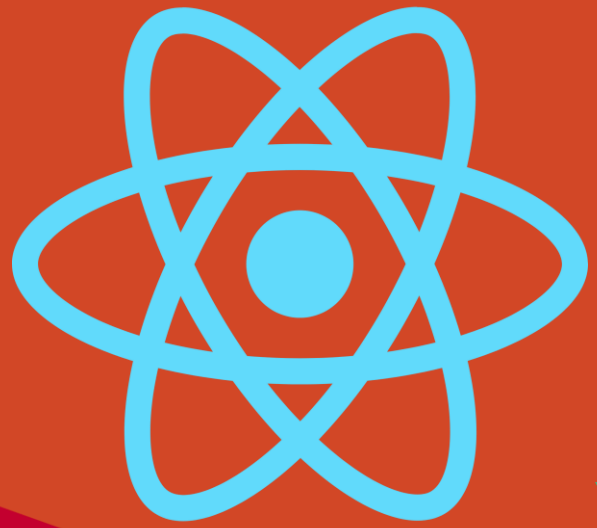
WHAT IS JEST?

Jest is a JavaScript testing framework that focus on simplicity



HOW TO USE JEST?

1
- yarn add --dev jest
- npm install --save-dev jest

2
```
{
    "scripts": {
        "test": "jest"
    }
}
```

3
- yarn test
- npm run test

Jest Functionalities

- Testing asynchronous code
- Setup and Teardown
- Matchers
- Mock functions
- Snapshop Testing

```
expect(2+2).toBe(4);
```

- toBe
- toEqual
- not.ToBe
- toBeNull
- ToBeDefine
- toBeTruthy
- toBeFalsy
- toMatch
- toContain

```
<a className="normal"
href="http://www.facebook.com"
onMouseEnter={[Function]}
onMouseLeave={[Function]} >
Facebook </a>
```

```
const tree = renderer.create(<Link  page="http://www.facebook.com"> Facebook</Link>) .toJSON();
expect(tree).toMatchSnapshot();
```

STAKEHOLDERS

STAKEHOLDERS

- **Final Users**
- **Open-Source Community**
- **Facebook**
- **Dev Team**
- **Sponsors**

Contributors

1

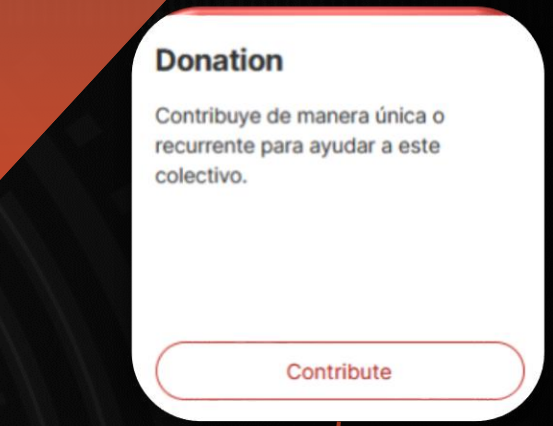
Helping solving issues on Jest open github repository

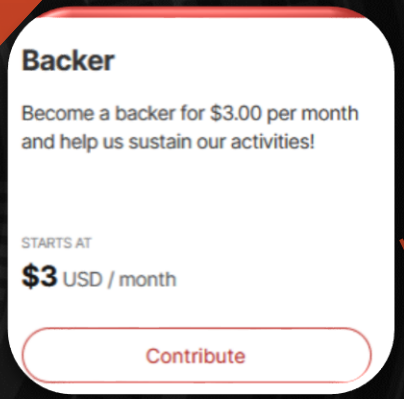
2

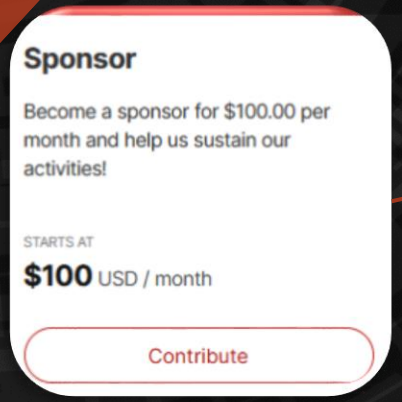
Users giving money to the dev team through donations or promoting to Backer role.

3

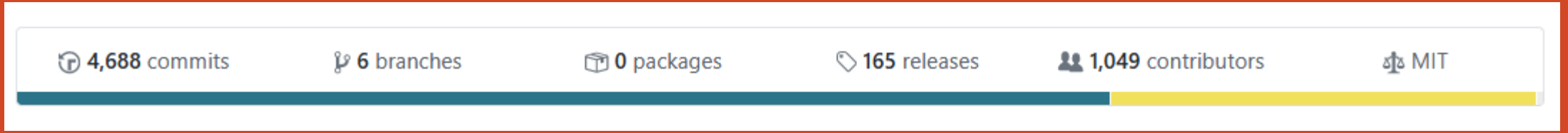
Sponsors

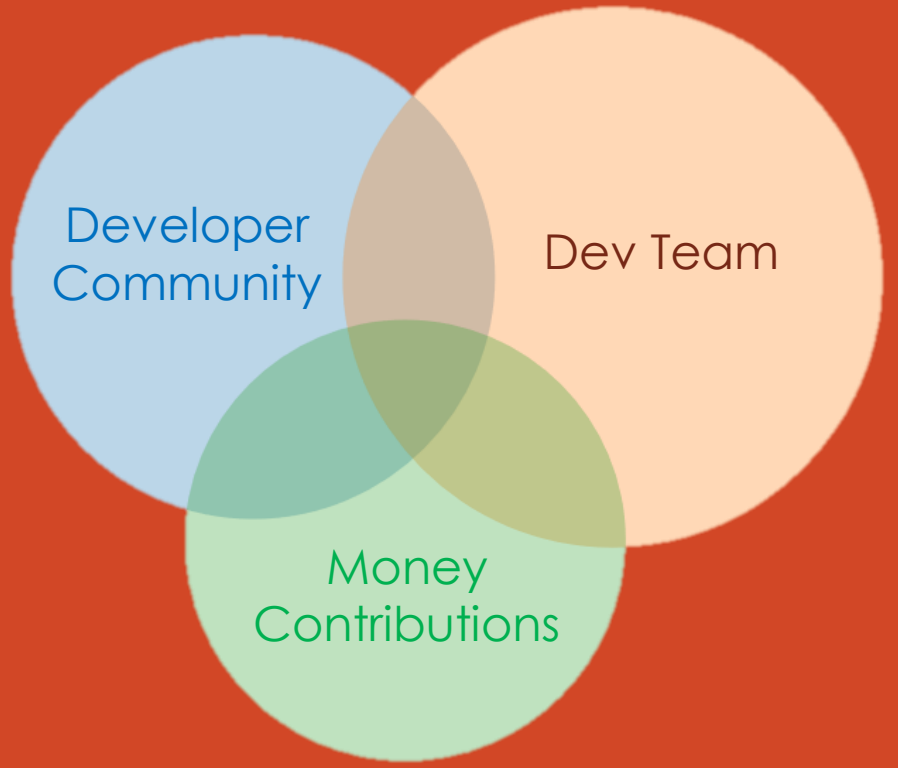




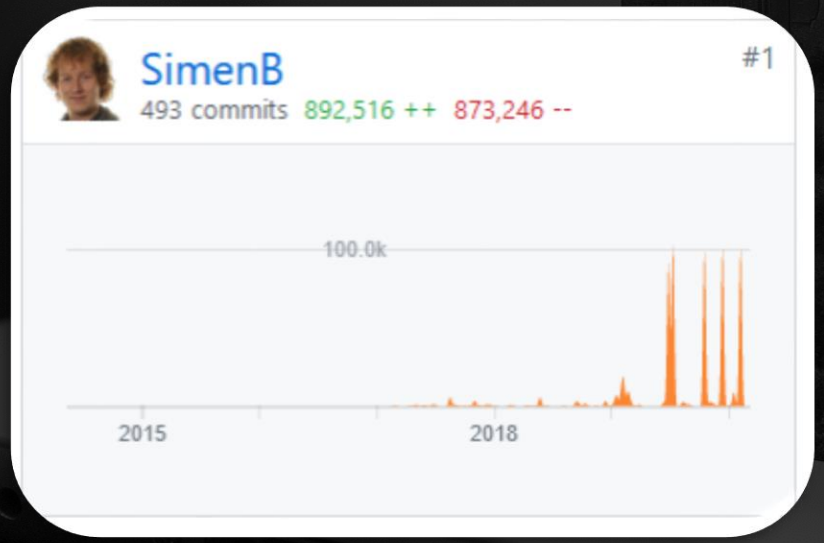


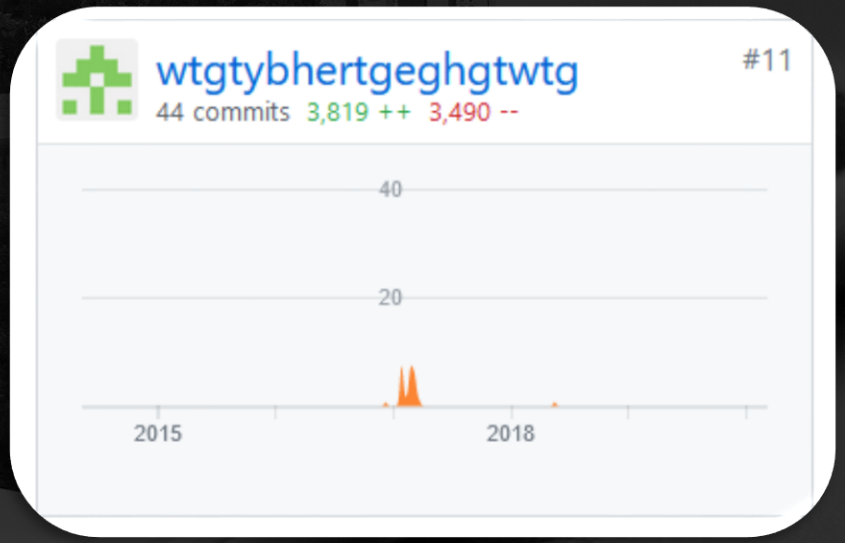
Main Focus of Interest





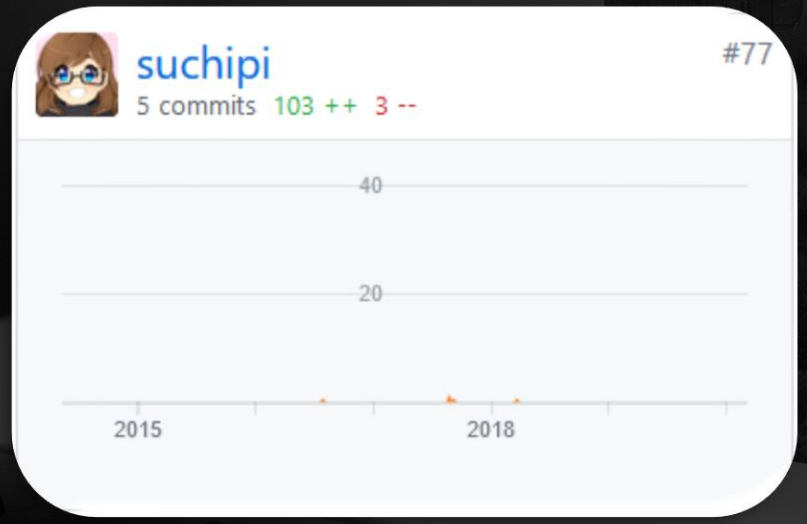
ANYONE CAN CONTRIBUTE TO THE PROJECT





ANYONE CAN CONTRIBUTE TO THE PROJECT

ANYONE CAN CONTRIBUTE TO THE PROJECT



EVEN YOU

QUALITY ATTRIBUTES

QUALITY ATTRIBUTES

1 PERFORMANCE EFFICIENCY

We want good performance for our tests

2 MAINTAINABILITY

Avoid Mocks

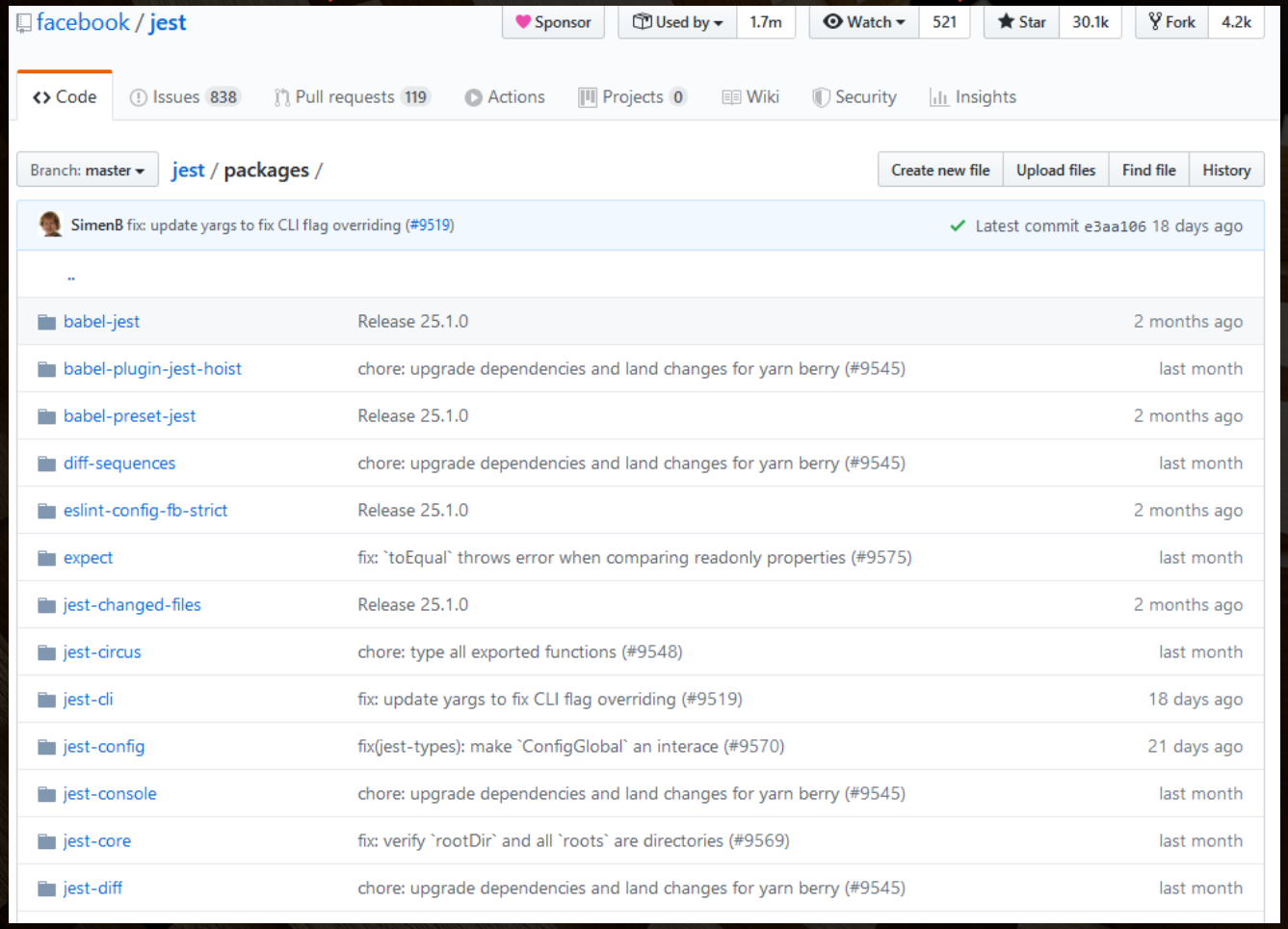
```
✓ test('Render Map is Correct',()=>{
    const main = mount(<MainPage/>);

    expect(main.find('MapContainer')).toBeDefined();
});
```

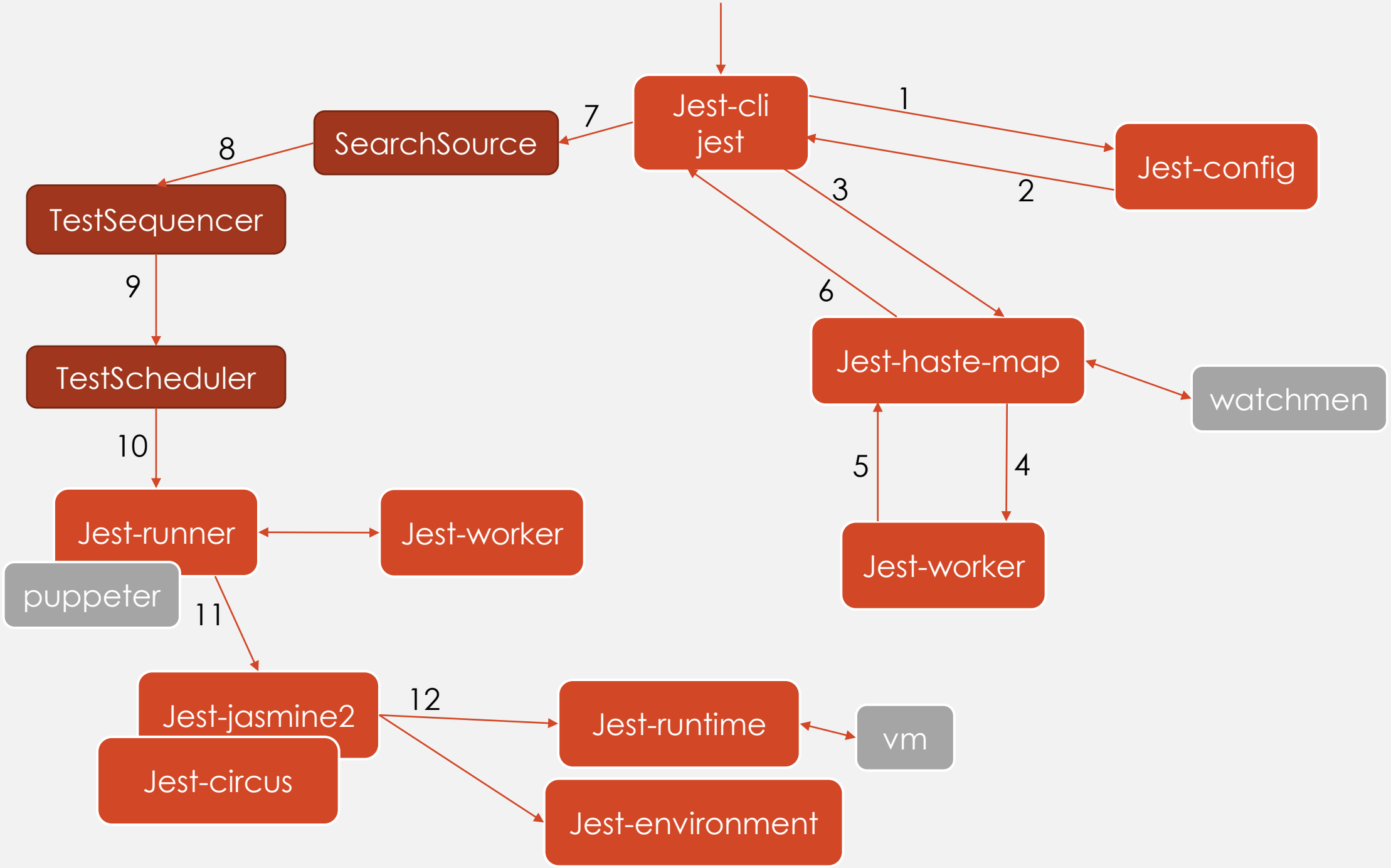
3 RELIABILITY

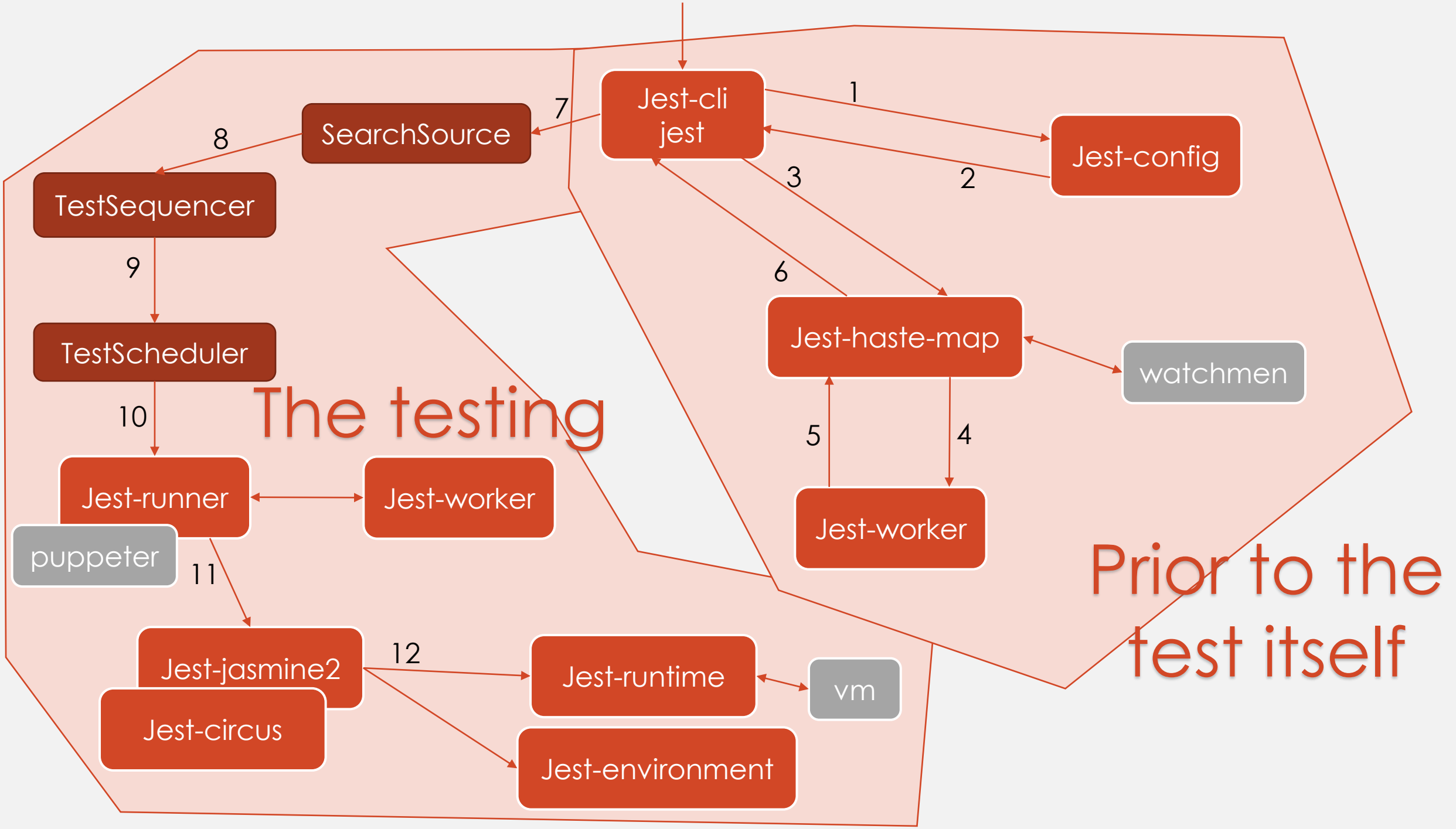
Tests must be trustable

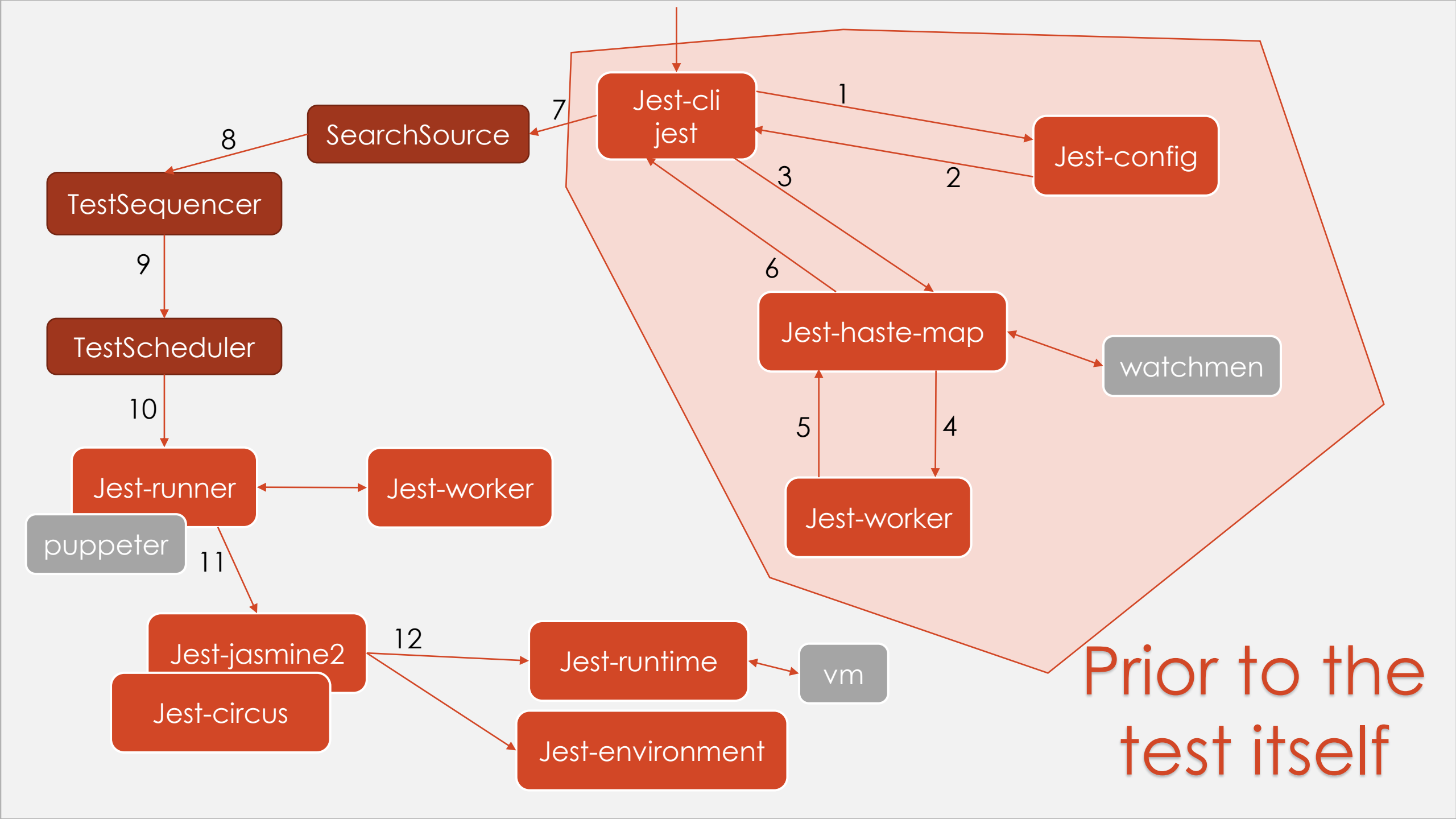
JEST ARCHITECTURE

How is the code organized?

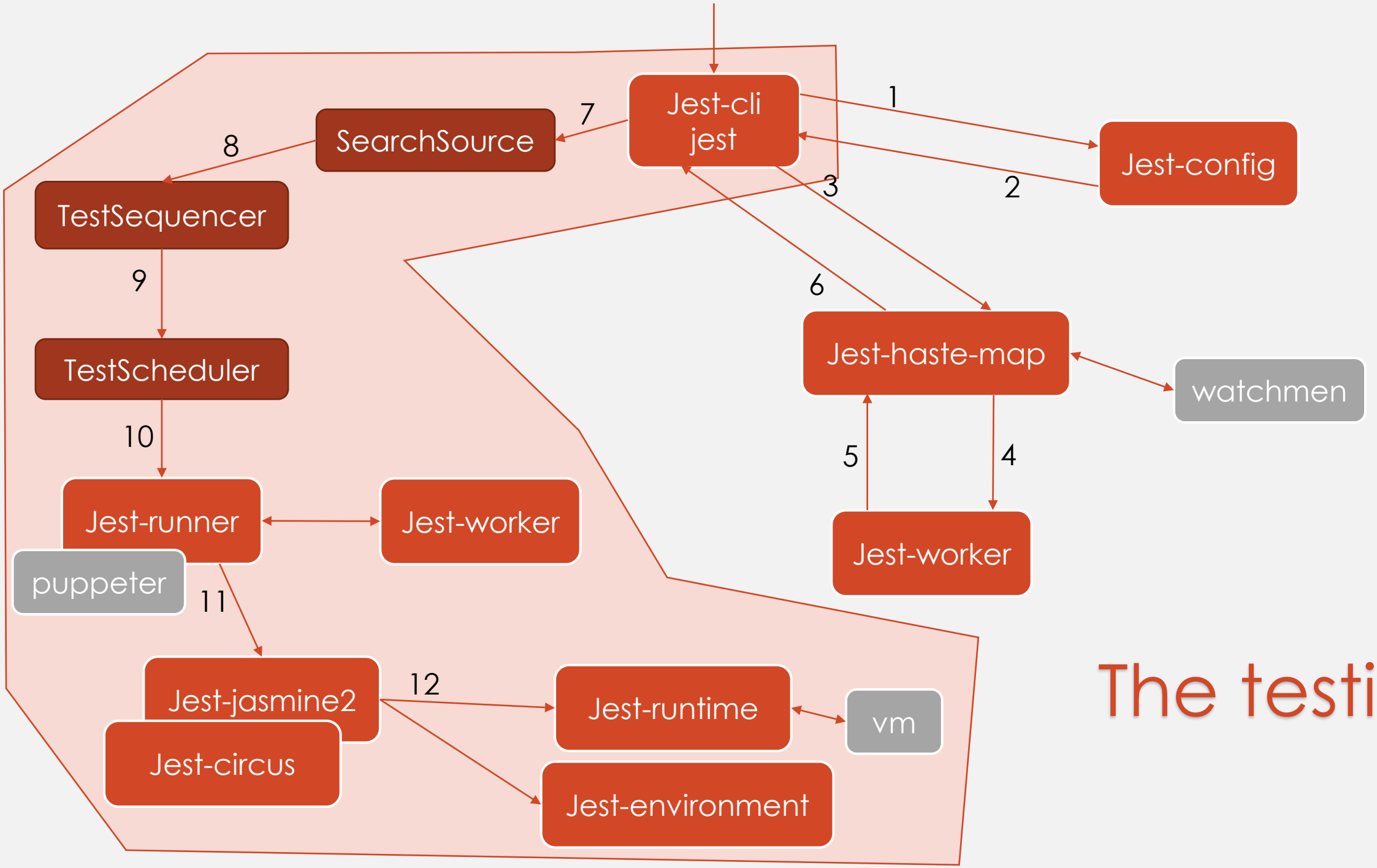



Jest-cli
jest
Jest-config
SearchSource
TestSequencer
TestScheduler
Jest-haste-map
watchmen
Jest-runner
Jest-worker
puppeter
Jest-worker
Jest-jasmine2
Jest-circus
Jest-runtime
vm
Jest-environment
1
2
3
4
5
6
7
8
9
10
11
12

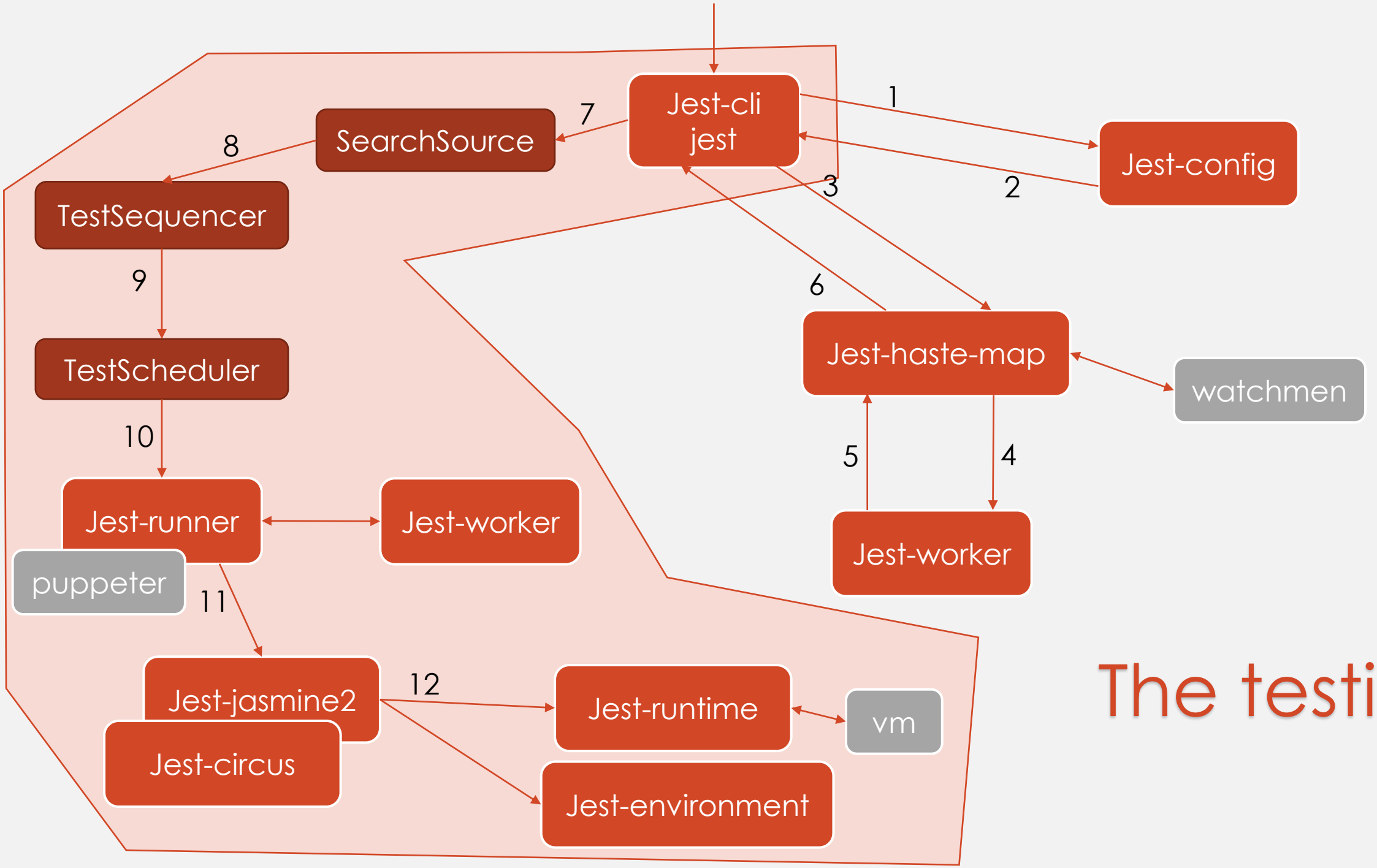

Jest-cli
jest
1
Jest-config
2
3
SearchSource
7
8
TestSequencer
9
TestScheduler
10
6
Jest-haste-map
watchmen
5
4
Jest-worker
The testing
Jest-runner
Jest-worker
puppeter
11
Jest-jasmine2
12
Jest-runtime
vm
Jest-circus
Jest-environment
Prior to the
test itself



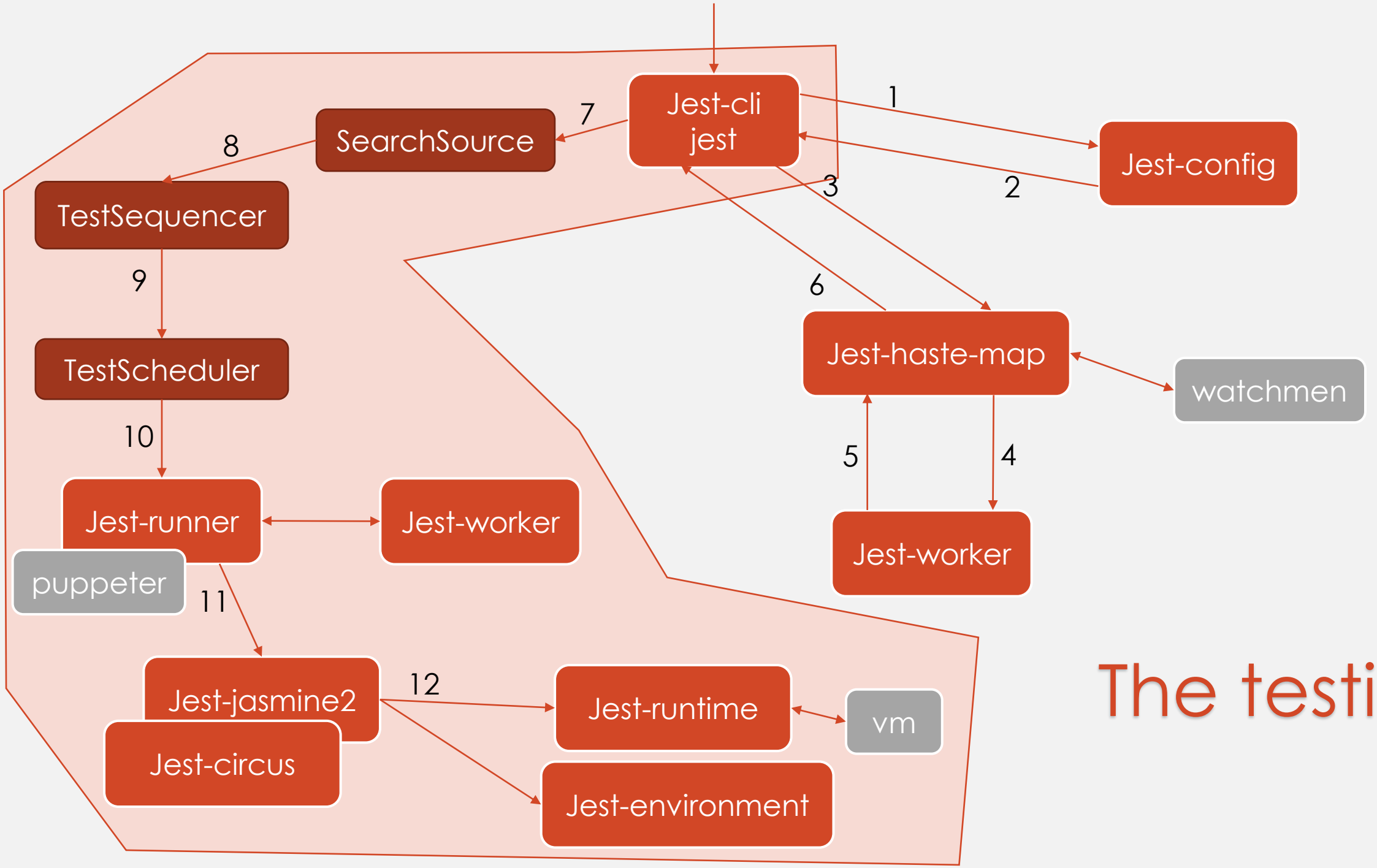
Prior to the test itself


Jest-cli
jest
SearchSource
Jest-config
TestSequencer
TestScheduler
Jest-haste-map
watchmen
Jest-runner
Jest-worker
puppeter
Jest-worker
Jest-jasmine2
Jest-circus
Jest-runtime
vm
Jest-environment
1
2
3
4
5
6
7
8
9
10
11
12

The testing


Jest-cli
jest
SearchSource
Jest-config
TestSequencer
TestScheduler
Jest-haste-map
watchmen
Jest-runner
Jest-worker
puppeter
Jest-worker
Jest-jasmine2
Jest-circus
Jest-runtime
vm
Jest-environment
1
2
3
4
5
6
7
8
9
10
11
12

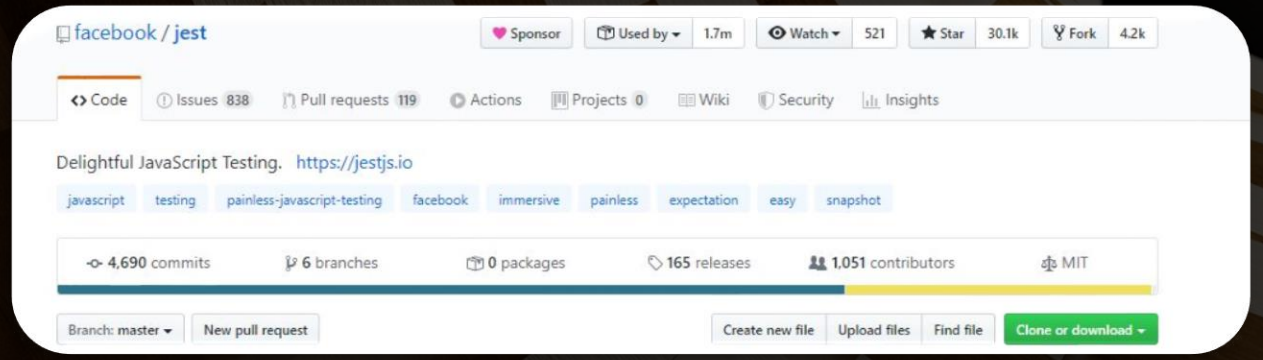
The testing


Jest-cli
jest
SearchSource
Jest-config
TestSequencer
TestScheduler
Jest-haste-map
watchmen
Jest-runner
Jest-worker
puppeter
Jest-worker
Jest-jasmine2
Jest-circus
Jest-runtime
vm
Jest-environment
1
2
3
4
5
6
7
8
9
10
11
12

The testing

CONTRIBUTE

How to contribute



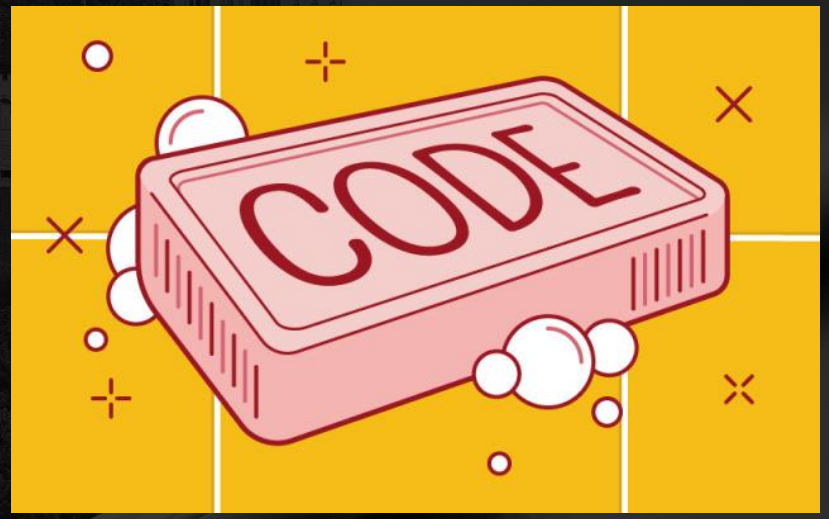
Take a look to:

- Facebook Open Source CoC
- Contributing guide of Jest

Other considerations

Code conventions:

- 2 spaces for indentation
- 80 char line length
- ‘ over “
- Use TypeScript
- …



COMPILE JEST

How do we compile Jest?

Install:

- Yarn
- Python (2.7)
- Node.js (12.x)

Run

```
PS D:\Program Files\GitHub\jest> yarn install
```

```
PS D:\Program Files\GitHub\jest> yarn run build
```

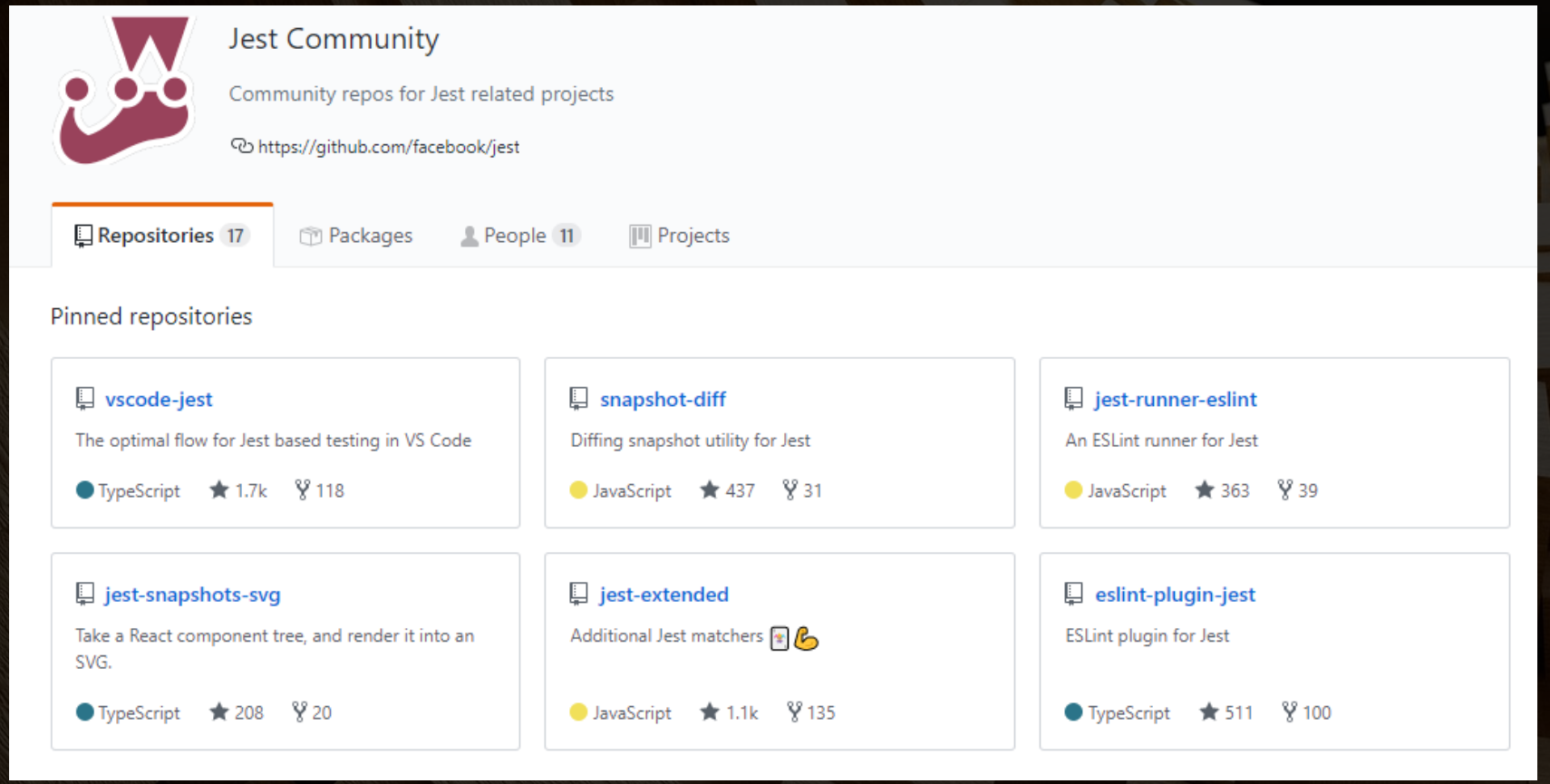
OR

```
PS D:\Program Files\GitHub\jest> yarn test
```

```
yarn link  jest-cli

yarn unlink jest-cli
```

JEST COMMUNITY

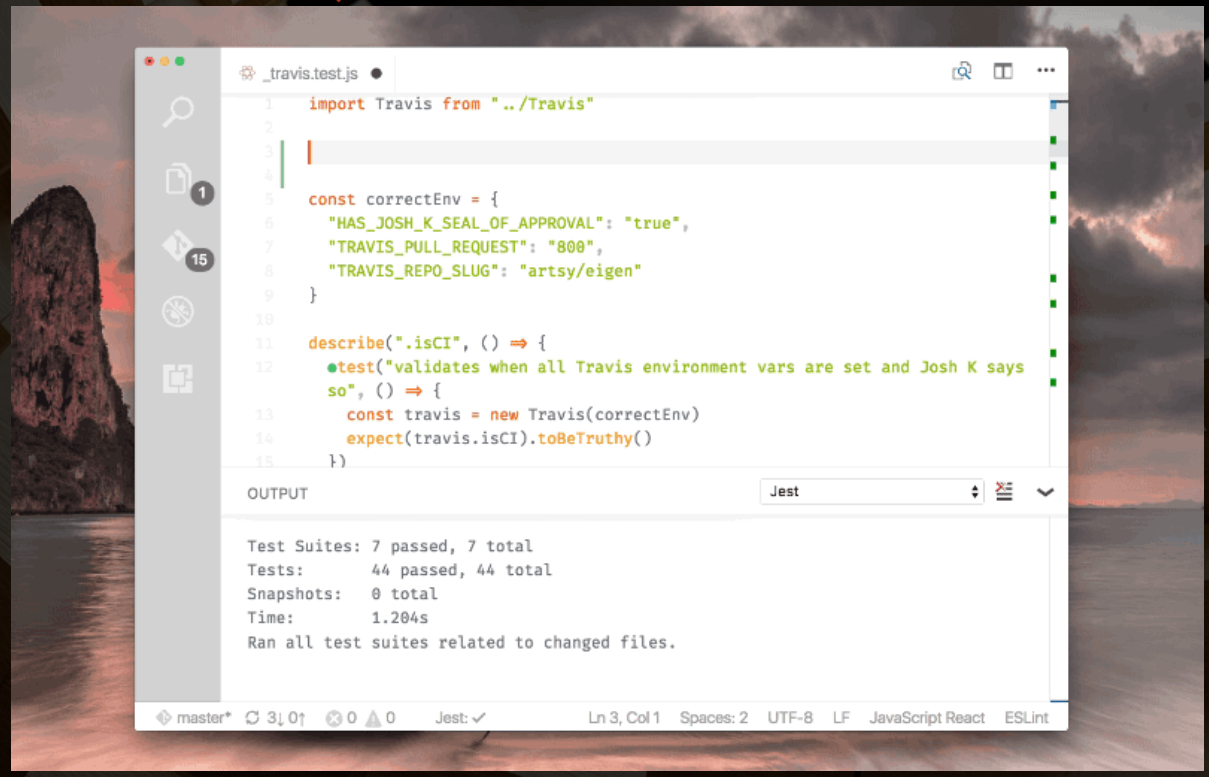
Jest Community and extensions

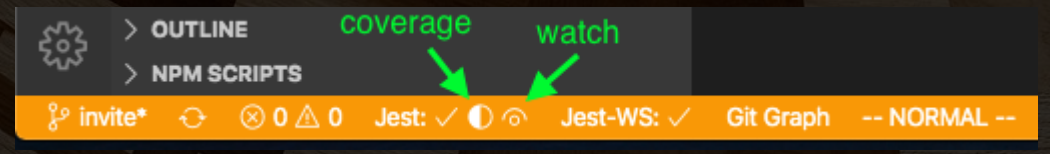


Visual Studio Code extension

Features

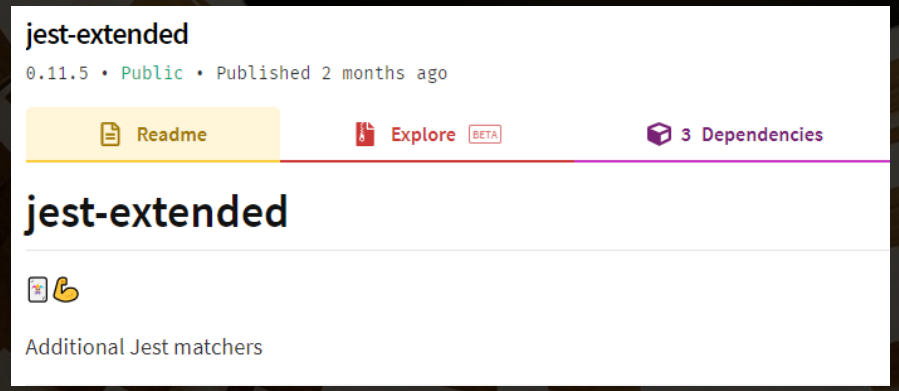
- Starts Jest automatically
- Show individual fail / passes inline
- Highlights the errors next to the expect functions
- Help debug jest tests in vscode





Jest-extended

Provides new matchers (assertions) to ease testing




```
npm install --save-dev jest-extended
```

CONCLUSION