Assignment: Leonie Peters, 3 April 2019

1.Of the following tech, which do you feel comfortable with?
☑ React
❏ AngularJS
❏ Angular
❏ Vue
❏ VueX
☑ Redux
❏ Redux-saga
❏ Immutable.JS
❏ Flow
☑ TypeScript
❏ Jest, Enzyme, Chai or similar
❏ Cypress
☑ ES6
☑ Node.js / Express
❏ PHP
☑ Socket.IO
❏ Docker
❏ Webpack
❏ Cypress
☑ Git
❏ CI/CD
❏ AWS
❏ Arceus
☑ CSS / Sass

2. Choose your favorite Front-End framework. What do and don't you like about it? Please make a comparison against other frameworks you might know.

I have the most experience in React. What I like about it:
  - You can build SPA's (single page applications).
  - Creating interactive web applications, React takes care of DOM manipulation.
  - Readability code: Separation of concerns by division container and presentational components.

  What I don't like about it:
  - State management gets difficult when app grows. Luckily there is Redux to solve this.
  - Simple code can get over engineered.

I have looked a bit into Vue. A benefit of Vue over React is that it supports both HTML and JSX, where React only supports JSX.

3. Convert the following into ES6

```javascript
class Shape {
  constructor(id, x, y) {
    this.id = id;
    this.setLocation(x, y);
  }

  setLocation(x, y) {
    this.x = x;
    this.y = y;
  };

  getLocation() {
    return {
      x: this.x,
      y: this.y
    }
  }

  toString() {
    return `Shape(${this.id})`;
  }
}

class Circle extends Shape {
  constructor(id, x, y, radius) {
    super(id, x, y)
    this.radius = radius
  }
  toString() {
    return `Circle > ${super.toString}`;
  }
}
```

4. You've made changes in your current working directory and want to stage some, but not all, of these changes. Please type out the git command you would use:

```
$ git add -p
```

5. You've started a new feature branch from master. After creating a few of your own commits you want to update your branch with any updates that might have happened on master. But you'd rather not pollute the project history with an extra commit. What do you do?

$ git fetch; git rebase origin/master

6. What are your favorite ES6 features?

Async functions, combined with await keyword, template literals, arrow functions, classes.

7. What is an Arrow function? What are its uses? How it differs from normal function?

New syntax to write functions. Used to write shorter code and scope *this* keyword.

- It's shorter (no function keyword, optional parentheses and curly braces).
- It has an implicit return.
- Lexically bound (value of this does not change).

8. What are the advantages and disadvantages of SASS?

+ Maintainable code through modules.
+ Secure equality in styling through declaration of variables.
- Compilation might slow down development.