

Frontend developer test

Part 1 - Theory

General

1. What is a reducer function?
2. If you have a slow website. Suggest some things to check and improve
3. What can you do if you need an HTML5 feature that is not available in some browsers? (Example in IE 9)
4. Mention some SEO optimizations for a home page
5. What's the difference between AMD, UMD and CommonJS?
6. What is html5 push state? Which problem does it solve?
7. How do you implement "overload" of functions in Typescript
8. How do you detect a touch device?

Tooling and task runners

9. Which would you choose as task automation: Gulp, Grunt, Npm? Why?
10. What is Docker or Vagrant? Why do we need them?
11. How do you implement pre and post hooks in Npm package.json

CSS / Design

1. Does the browser match the CSS selectors from "left to right" or "right to left"?
2. If you are using Sass and you have a file with all colors: "colors.scss", how can you prevent this colors file to be included in every other SCSS files.
Hint: "colors.scss" should be a partial.
3. What is Atomic design?

Angular 8+

1. Which is the difference between a Component and a Directive in angular 2?

2. What's the usage of :host{ }?

3. why do you need:

```
<base href="/">
```

4. AOT vs JIT? Why?

5. If you have the following form:

```
<form>
  <input type="text" name="nickname">
  <input type="password" name="password">
  <button type="button">Send</button>
</form>
```

Using Reactive Forms:

- Nickname and password should be required fields
- Send button should be disabled if the form is invalid

6. What is NgModule and why do we need them in our code?

- a. How do we pass data from parent to child component?
- b. How do we pass data from child to parent component?
- c. How do we pass data to sibling components?

7. Which is the proper way to access a DOM element inside a Component?

8. What's the usage of @ViewChild?

9. What's the alternative to digest cycle (angular 1) in Angular 8+?

10. What is Shallow Dom? Why do we need it?

Observables

12. If your renderer doesn't support:

```
setTimeout(() => {
  console.log('test')
}, 3000);
```

- How can you implement the same with Observables?
- Is there any situation in Angular 8+ that this could happen?

13. When does an Observable catches an error?

- a. `Observable.subscribe(success, error() {})`
- b. `Observable.catch`
- c. Both