

For the past few weeks, you have been a junior developer at Techasite, a consulting firm specialising in website and mobile application development.

FishEye logo

FishEye's logo

Together with your boss Amanda and the UI Designer, you've just had a project kick-off meeting with a new client, FishEye. FishEye is a website that allows independent photographers to showcase their best work. They have recently raised some funds and would like to update their website.

After the kick-off meeting, you see an email from your boss about the FishEye project. You open it immediately:

Subject: FishEye kick-off meeting

From: Amanda

To: Me

Hi, Amanda,

Thanks for attending this morning's meeting! To recap, our goal is to build a working prototype of a new website that we can present to FishEye at our next client meeting. You will be responsible for providing all the HTML, CSS and JavaScript needed for the prototype. Our back-end team will integrate with FishEye's existing system once you have completed the code for your part of the project.

To help you get started, here's all the information I gathered from the client:

My meeting notes detailing the main features and technical requirements to be implemented.

The approved mock-ups, developed by our designer. You will create a main page and a page with information for each photographer in the sample.

Sample photos and videos from FishEye, which you will use to design the pages.

Sample data in JSON format, which you can use to dynamically create the individual photographer pages. This format mimics the structure of the data in the database, so don't modify the existing data. The only modification you can make is to add a JSON field for the description of each image (for screen readers). You will have to do this yourself.

Although the website is a prototype, it should match the mock-ups and work properly (no errors). As the client mentioned at the kick-off meeting, his top priority is accessibility. Make sure you build the

site according to the accessibility requirements outlined in my notes (e.g. use ARIA tags, ensure keyboard navigation, run the accessibility checker like AChecker, etc.).

Once you send me a GitHub repo with the completed code, we will review and verify all the functionality of the pages. I'll also ask you to demonstrate how to navigate the site using the keyboard to make sure it's usable by screen readers.

Also, before submitting your work, make sure it meets the following standards:

The code is separated into different files (HTML with accessibility tags, CSS, JavaScript).

ESLint is used (with default settings) to ensure that your code is robust. This is especially easy to integrate with the VSCode IDE.

A modern version (ES6 or higher) of JavaScript is used and obsolete features are not used.

Object-oriented programming is used.

The code is readable. Choose meaningful names for variables, functions and classes. Add comments to the code if the name does not make it clear what is going on.

Good luck and show me what you can do!

You start by opening the mock-ups to get an idea of what needs to be done:

When you start looking at the mock-ups, you receive a message from Zoe, a senior developer whom you admire very much. She has been mentoring you and doing a lot of your code reviews:

Zoe: Hi! Amanda told me that she has put you in charge of developing the first prototype of the FishEye project, right?

Me: Yes, I just started!

Zoe: Good for you. I think you'll learn a lot in the process. I just wanted to give you a little technical advice. Amanda mentioned that FishEye has videos and photos for the photographer. This is a good opportunity to use the Factory Method pattern, as a way to simplify creating the right DOM element in the rest of the code.

Me: OK, I'll use the Factory Method pattern. Thanks again!

Well, it looks like you now have all the elements you need to get started. It's time to get to work!

Deliverables

For this project, you will need to create the following deliverables:

A code repository on GitHub with HTML, CSS and JavaScript files.

An updated version of the JSON (with alt-text).

The GitHub repo should be named with the following convention: FullName_#_DatedStart. The # corresponds to the project number on the path and the date must be in ddmmyy format. For example, FrancoisLenotre_5_05032020.

Oral presentation

During the oral presentation, your assessor will play the role of Amanda. The presentation will be structured as follows:

Presentation of the results (15 minutes)

Present the website.

Demonstrate keyboard navigation on the website and with a screen reader.

Discussion (10 minutes)

Playing the role of Amanda, the evaluator will ask you questions about your methodology and deliverables.

Debriefing (5 minutes)

At the end of the sessions, the evaluator will stop playing the role of Amanda so that you can debrief together.

The assessor will question your decisions, so be prepared to defend your work.

Skills

Develop a modular web application with design patterns

Ensure accessibility of a website

Write maintainable JavaScript code

Manage site events with JavaScript