



Particle Fwd Coding Challenge

Introduction

Thank you for applying for an Engineer position at Particle Forward, and congratulations on the previous successful steps. Prior to your in-person technical interviews, we kindly ask you to complete the following assignment.

This exercise is designed to assess your development skills.

We will evaluate the work you send us against the criteria explained below. This is not a timed assignment. However, please make sure that you send back the assignment by the deadline agreed upon with your interviewer.

Objective

Create a responsive webapp that renders a photo gallery of a car, including the backend API to serve the JSON data of a single car.

Constraints

1. UI rendering should be based on React
2. Webserver should be based on Node.js
3. Webapp should be tested
4. Layout should be responsive, from mobile to desktop
5. Implement a backend API that serves the JSON data

Webapp specs

- The first page should render image thumbnails of a car
- The second page should render larger images when the user clicks a thumbnail

Layout

At the end of this file you will find examples of simple wireframes to show how the UI might look. Feel free to add design as you like. You will not be evaluated on the design.

API Details

For this challenge, we have an API serving the required data in JSON format. An example of this JSON response can be accessed via this URL:

<https://particleforward.com/api/challenge/index.json>

Please open this URL and use the JSON into your project to simulate the API response. In this JSON, you will see an array named “images” and content like this:

```
"images":  
[  
  {  
    "uri": "https://particleforward.com/api/challenge/assets/image1",  
    "set": "fe4cfedffdffffff"  
  },  
  {  
    "uri": "https://particleforward.com/api/challenge/assets/image2",  
    "set": "fe4cfedffdffffff"  
  }  
]
```

Inside this array, you will see some strings that we use to build the URL for that photo in different sizes. For instance, to create a small thumbnail, we take the “uri” value, and build the URL as follows:

https://particleforward.com/api/challenge/assets/image1_2.jpg

Note that we append “_2.jpg” to build the URL. You can now navigate to this URL and make sure that the image loads.

For a larger photo, we would replace “_2” with “_27” and then have the URL for a larger photo:

https://particleforward.com/api/challenge/assets/image1_27.jpg

Next steps

You can either share a github repository or zip your code to any repository of your choice (like google drive) and email the link over to your recruiter, adding your name to the subject line.

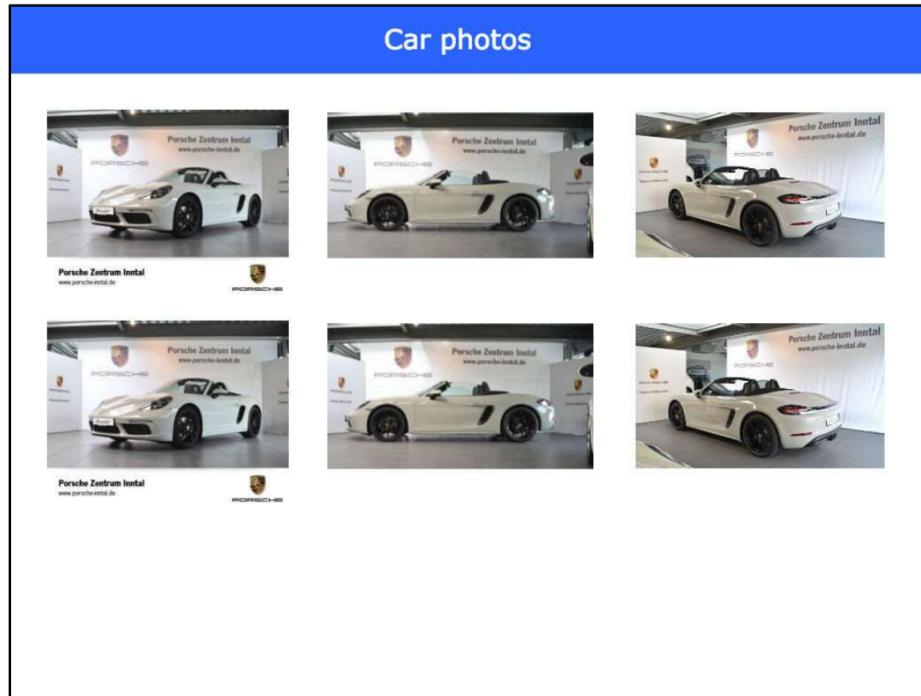
Please make sure to include any instructions the reviewer might need to run your application.

We will review your code and evaluate it against criteria such as functional completeness, code structure and architecture. Complete this assignment like you would complete a task at your workplace. After reviewing your assignment, we will share our feedback with you and communicate our decision on whether or not to proceed with in-person interviews.

When you come in for your interview, please be prepared to discuss your experience and answer questions regarding the work you provided and your approach to complete this project.

We look forward to meeting you!

Sample Wireframes



Car photos



Porsche Zentrum Inntal



Porsche Boxster (718) PDK ...

