Coding Challenge

Thank you for accepting the invitation to complete our coding challenge.

The present assignment is meant to evaluate your proficiency in Angular and .NET REST APIs.

Code Test Instructions

1. Bug fix

We have a Bike Catalogue application where we can see different kinds of bikes, pictures, and some details like their manufacturer, model and price.

A bug has been reported with 'My Favourites' feature. It seems like it is possible to add the same bike multiple times. Looking at the code, it appears messy and unreliable.

- Please refactor the code and make sure this feature is working correctly.

2. UX enhancement

Our product team want to add a UX enhancement on the home screen to sort the bikes.

- Add a simple dropdown with a 'Sort by' label above the bike list.
- It should contain 3 options: 'Manufacturer name' (which sorts by manufacturer name alphabetically), 'Lowest price', and 'Highest price'.
- When you load the page, it should default to ordering by manufacturer name.
- **Implementing unit tests is a plus.*

3. Implement API

Currently, our list of bikes is stored locally in a JSON file in the frontend application. We want the data to be returned from an API in the backend.

- Please develop an API in .NET using C# to return the list of bikes with a focus on Domain Driven Design.
- Update the service in Angular to retrieve the list of bikes from the API instead.
- Make sure the sort and favourites functionalities are working after the changes.
- **Implementing unit tests is a plus.*

4. New feature

We would like to have a 'Create' page that can add a new bike and its specific information individually.

- Please implement a new Angular page with a FORM and an API in .NET to allow a new bike to be added.
- Feel free to use any data storage you like.
- Please apply SOLID principles and design patterns, with a focus on Domain Driven Design.
- **Implementing unit tests is a plus.*

Our designer is on holiday, so you will need to come up with the design yourself!

Technical Environment

The frontend application uses Angular 17, and the backend solution uses .NET 8.0.

Make sure you have Internet access before building the solution so Node and Nuget packages can be downloaded.

Submission

After finishing the task, we kindly ask you to return the complete version by uploading it to Google Drive, Dropbox, WeTransfer or similar and send **THE LINK** to the recruiter by e-mail. (We may not receive your e-mail if you attach a zip file).