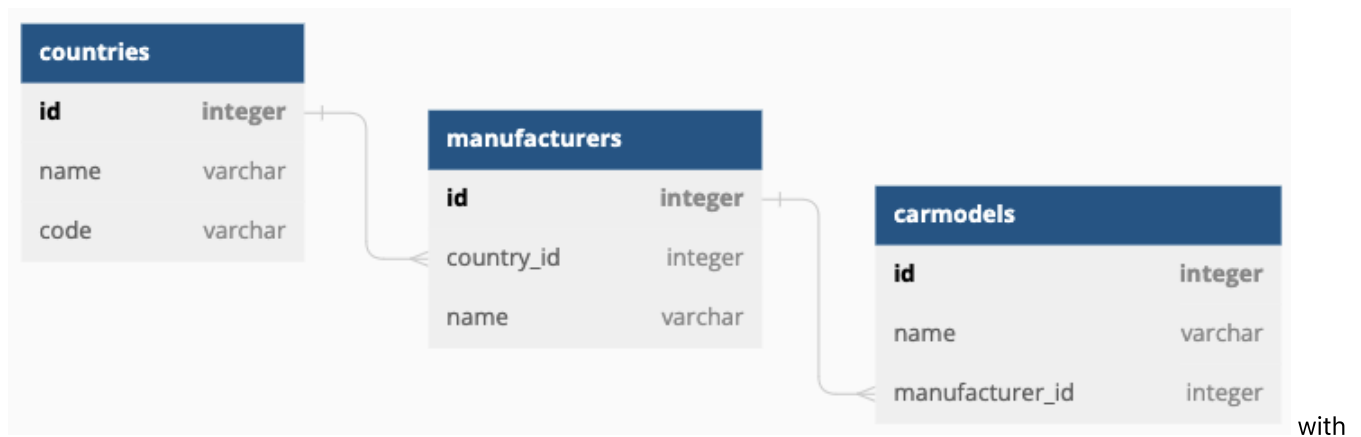# Instruction for Lab 4

This is a lab assignment #4 in "Web Technologies II", year 2023.

Lab 4 extends the functionality developed in Lab 3 by improving the usability of code. To begin Lab 4, you need a working https://www.lab3.dev site:

- If you completed the Lab 3 assignment, continue with the code you already developed.
- If you did not do (or did not finish) the assignment, you can use the sample code developed by the lecturer (don' t forget to create the `.env` file and run the `php artisan migrate --fresh --seed` command).

Task #1: Exdending the data model

The data structure defined in Lab 3 is Countries < Manufacturers < Carmodels

 with only a few attributes.

Create a new migration:

```
php artisan make:migration extend_manufacturers_carmodels
```

Edit the generated migration file to extend the models by adding the following attributes:

manufacturers

- founded: integer - *stores the foundation year of the company*
- website: varchar (255) - *stores the website URL of the comany*

carmodels

- production_started: integer - *stores the year, when model was first in production*
- min_price: decimal (8,2) - *minimal price in Euros*

Update the seeder classes to take care of the new fields.

Task #2: handling the new attributes

Update the app to wok with the new data:

- Change the code of "new" and "edit" web forms for manufacturers & car models to allow entering the new attributes: founded, website, production_started, min_price. Use simple `<input type="text" />` and don't worry about data validation at the client side – you will do it on the server.

- Change the `ManufacturerController`, `CarmodelController` controllers, as well as `Carmodel` and `Manufacturer` moddels to allow loading and saving the new attributes.

Task #3: data validation

Add validation to `ManufacturerController` and `CarmodelController`. At minimum, set the following rules:

- Manufacturer name may not be empty
- Manufacturer name cannot exceed certain length
- Manufactuer name has to be unique in the database
- Website URL of the manufacturer has to be a valid URL
- Foundation year has to be an integer value
- Foundation year of the manufacturer cannot be in the future
- Car model's minimal price has to be positive number
- Start of car model's production has to be an integer value larger than 1900.

Task #4: Repopulationg the input forms

Upate the Blade files used for creating and editing Carmodel and Manufacturer objects, in order to:

- output the validation summary of the data
- repopulate the input fields with user entered values.