**B) Form and Data Validation Rules.**

A screenshot of a computer

Description automatically generatedWe created a form webpage to collect customers' information so they can be contacted for information about cars. The structure of this webpage contains five attributes that we are going to collect and post into the database, those are first name, last name, email, phone, age, and Eircode.

We use JavaScript to enforce the validation of all the attributes.

A screen shot of a computer code

Description automatically generatedFirst and last names must be only alphanumeric and no longer than 20 characters.

A computer screen with text

Description automatically generatedEmail must contain the @ symbol and the email structure with “.com” for example.

Phone number must have a length of 10 digits.

A screenshot of a computer program

Description automatically generated

Age must be over 18 and under 70 to be accepted.

A screen shot of a computer program

Description automatically generated

A screen shot of a computer code

Description automatically generatedThe Eircode must start with a number, be alphanumeric, and have a length of 6 characters.

If one of these inputs fails in the validation, a windows alert will pop on the screen indicating the error.

**Creating a connection with the database.**

**A screen shot of a computer

Description automatically generated**Using the MySQL package installed, we can create the credentials to log in the database using the connection variable.

A computer screen shot of a program

Description automatically generatedOnce the credentials are done, we made a query to create a new table if not exist using the MySQL language, with all the attributes that we are going to use after. This will save us time and prevent us from misspelling something wrong when creating a table manually in MySQL Workbench.

A screenshot of a computer program

Description automatically generated

**Creating a request from the server.**

Using the .get() method we can request data from the server without modifying it. In this case, we use the form.html as a response to an HTTP request.

A screenshot of a computer program

Description automatically generated

**Sending data from the server to the database.**

With the post.() method we can send data from the user input in the webpage to the database. In this case, we have to specify the endpoint, the “/submit” in the form.html file and give a structure to the data coming from the form file.

A screen shot of a computer

Description automatically generated

After use the same validation for all the inputs from the user, we are ready to insert the data into the database following the MySQL structure or language.

A screen shot of a computer program

Description automatically generated

This structure must match the same as when we create the database once the application is running.

A screenshot of a car sale

Description automatically generatedOnce the data is sent, we will see the home.html page.

Using the home\_script file, we create a Java function that cleans the form after clicking the button “Back to Home”.

A screenshot of a computer

Description automatically generated