| Assessment # and title | | | | SaaS-AT2-Pt2 SaaS: Portfolio Part 2 | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lecturer name** | | | | *Student to fill this section out* | | | | | | | |
| **Student name** | | | | *Student to fill this section out* | | | | | | | |
| **Student ID number** | | | | *Student to fill this section out* | | | | | | | |
| **Telephone contact number** | | | | *Student to fill this section out* | | | | | | | |
| **Email** | | | | *Student to fill this section out* | | | | | | | |
| By completing and submitting this signed form to my lecturer, I am stating that:   1. The attached submission is completely my own work 2. I have correctly cited all sources of information used in this work (if required) 3. I have kept a copy of this assessment (where practicable) 4. I understand a copy of my assessment will be kept by the NMTAFE for their records 5. I understand my assessment may be selected for use in the NMTAFE’s validation and audit process to ensure student assessment meets requirements | | | | | | | | | | | |
| **Student Signature** | | *Student to fill this section out* | | | | | **Date** | | *Student to fill this section out* | | |
| *Assessors please note:* Where verbal clarification has been sought from a student to gather additional assessment evidence from an assessment item, question/s and response/s must be recorded, signed, and dated by the assessor, against the relevant assessment item/s. | | | | | | | | | | | |
| *NB: Feedback will be given via Blackboard when possible.* | | | | | | | | | | | |
| **Submission 1** ☐ | | Result | Satisfactory / Not Yet Satisfactory | | | | | Date | | |  |
| *To satisfy requirements for this assessment, you need to complete the following:* | | | *Feedback to student…* | | | | | | | | |
| **Submission 2** ☐ | | Result | Satisfactory / Not Yet Satisfactory | | | | | Date | | |  |
| *To satisfy requirements for this assessment, you need to complete the following:* | | | *Feedback to student…* | | | | | | | | |
| **Student Feedback** | | | *Feedback from student…* | | | | | | | | |
| **Lecturer Signature** | | |  | | | **Student Signature** | | | |  | |
| **Assessment type (🗹):** | | | | | | | | | | | |
| ☐ | Questioning (Oral/Written) | | | | ☐ | 3rd Party Report | | | | | |
| **☒** | Practical Demonstration | | | | **☒** | Other – Project/Portfolio (*please specify below):* | | | | | |
|  |  | | | |  | | | | | | |

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| Required Resources | |
| --- | --- |
| The base requirements this assessment task, are listed below.  They are listed as common (for both PC and Mac), and for the individual operating systems. Common:  * Access to Office 365 & Microsoft Word * PhpStorm or similar IDE  PC:  * Laragon (with following components):   + Apache,   + NginX,   + MariaDB 10+/MySQL 8+,   + MongoDB 4+,   + PHP 8.0+,   + NodeJS 14+,   + npm,   + composer 2+ * Web Browsers (Must have **at least** TWO different rendering engines)   + Chromium based: Edge, Chrome,   + Firefox   + Opera  Mac:  * Docker * Web Browsers (Must have **at least** TWO different rendering engines)   + Chromium based: Edge, Chrome,   + Firefox   + Opera   + Safari   ***Use of some of these items may not be used in this part of the assessment task.*** |

| Assessment Due Date |
| --- |
| This assessment is split into components that have several due dates:   * Week 07 at 17:30 (5.30PM) on day of scheduled lecture (Pt1) * Week 15 at 17: 30 (5.30PM) on day of scheduled lecture (Pt2) * Week 16 at 18:00 (6:00PM) on the day of the scheduled lecture (Pt2)   Refer to Blackboard for most accurate dates, which may alter due to unforeseen circumstances.  We also will endeavour to update these document(s) at the same time. |

| Instructions |
| --- |
| Follow the steps listed in this assessment item.  Submission of the documentation, code, and associated items is at the end of each part of the portfolio.  *Each part of the portfolio has a deadline for submission.*  *It is advantageous to you to attempt to meet the deadline provided.* |

| Important |
| --- |
| We presume that all assessment work is completed on a PC with the software as specified. This should reduce the issues encountered.  Whilst other applications and operating systems may be used, we are unable to give extensive support to ensure your environment is working as expected |

| Scenario |
| --- |
| You are currently working as an intern for a small Perth-based start-up company called *Incredibly Obvious Technologies*.  The company have given you the task of investigating NoSQL data stores, in particular MongoDB as a “document store.”  In your investigations they have laid out a number of questions and tasks to be performed. These tasks and questions are outlined in the remainder of this document.  Because you are working for a company who have web, IoT and Software development as their primary industries, they require their staff to be able to work both in a ‘code’ environment, ‘WYSIWYG’ environment, and also at the command line interface (CLI).  CC (Car Collectors)  You have been asked to create a small application that tracks people, and the cars they own.  There are many more cars than owners listed, but owners may have more than one car. This sample data shows some owners having no cars, and others having up to ten cars!  The data does not contain any timestamps and you are expected to add these to both collections of data when inserting into the database. |

| General Instructions |
| --- |
| Complete each step of the document in the order given.  Follow the steps to create a simple application (no user control/roles/permissions is required) that allows for the basic CRUD for the cars and the owners. |

| Answering Questions |
| --- |
| When a step includes a question, you must attempt to answer it.  There is a minimum and maximum number of words to use for each answer.  Any step that requires answers to be provided will have a space in this document immediately after each step. The answer space will expand with the content you type or images you paste.  Resize images to fit the space provided, ensuring they are still legible.  If a step has more than one question, these maxima and minima are a total for all the questions in that specific step.  All answers must be in complete sentences unless indicated.  *If required, make sure to add any code you’ve written in a separate file to your submission. DO NOT put long pieces of code (over 10 lines) in this document.* |

| Sources of Information |
| --- |
| In industry, it is good practice to keep track of where information was obtained. This is especially true if it is a written document, or even code.  If you answer any questions using information from web sites, please include the site name and URL (Web site address) after the answer. Likewise, include the title and author for books and magazine articles. For example:   * RS Electronics Ltd: <https://au.rs-online.com/> * Slack API Documentation, Users List Method: <https://api.slack.com/methods/users.list> |

| Code Storage |
| --- |
| We advise that you create a private GIT repository on GitHub and use this to store a copy of your work.  Alternatives include external or cloud based data storage.  To ensure you have a recent copy of your code you must use AT LEAST one of the following methods:   * Private Git repository, and/or * Cloud Storage (OneDrive within your college Office365), and/or * Keep a copy on a USB thumb drive.   Backing up to One Drive or to USB is best done by compressing the project folder up before copying to either OneDrive or USB. |

| Code Style |
| --- |
| Please see APPENDIX A: CODE STYLE GUIDELINES for details on the code style(s) to use for the assessment. |

# Assessment Steps

Complete the steps in the order given.

| STEP | Task to perform |
| --- | --- |
| 00 | Complete the Front Page Make sure you have filled out the front page of this document.  Familiarise yourself with the content and document your progress in this assessment.  At any stage during this assignment, you may consult the stakeholder(s) or their representative(s).  Read this document at least once *BEFORE* commencing work.  Make notes on the requirements of this assessment, as details appear as you progress through and are not given in one location. This is very similar to how details emerge during the continuous development interviews and meetings with a client. |
| 01 | Setting Up Part 1 Depending on the language and framework being used, you will need to follow the steps you normally take to create the basic / skeleton application before adding any new data.  Make sure that the project is named: XXX-AT2-Pt2 where XXX is replaced with YOUR initials.  Create a new Laravel project named XXX-At2-Pt2 using the following command (for docker):   * curl -s https://laravel.build/example-app?with=mariadb | bash   Change into the XXX-AT2-Pt2 folder:   * cd XXX-At2-Pt2   Run the docker containers fort the base application:   * sail up   In a second terminal window, run the command:   * sail artisan vendor:publish --tag=sail-docker   Stop the application by either entering sail down in the second window, or use CTRL+C on the first window to stop the container.  **Initialise Version Control**  Initialise a git repository using the command line, or a suitable GUI. The command line steps will be similar to:  git init  git add .  git commit –m “SaaS 22S1 AT2 (Portfolio) Part 2, Initial Commit” |
| 02 | Setting Up Part 2 Go to [https://github.com/AdyGCode/xxx-at2-Pt2](https://github.com/AdyGCode/xxx-at2-pt3) and download a copy of the project source.  Uncompress this project’s content.  Navigate this project’s content, and perform these steps:   * Replace the existing docker-compose.yaml with the one from this project. * Replace the existing `docker/8.1/Dockerfile` with the one from your project. * Perform `sail up` to re-run the application.   It should now have MongoDB and mongo-express running as part of the development environment.  Make sure you check the files carefully and the ReadMe for any more details.  **Sample Data**  Create a new folder inside the database folder, with the name json.  Copy the JSON files from the sample project folder to your newly created JSON folder.  If you have a ReadMe.md file in your project by default, then rename this to Framework.md.  Create a new ReadMe.md file in the root folder that contains the data shown in the appendix. |
| 03 | Home Page Create a home page (Dashboard and Welcome Screen) that:   * Shows the total number of collectors and the total number of cars listed on the system.     **Version Control**  Check, add, and commit files to git:  git status  git add .  git status  git commit –m “**xxxxx Home Completed**” |
| 04 | Car Browse Page Create a page that allows you to browse the cars.  The cars should be listed in a table.  All columns should be shown.  The final column should have buttons to allow for the user to view the car details (see Show Page).    **Version Control**  Check, add, and commit files to git:  git status  git add .  git status  git commit –m “**xxxxx Car Browse Completed**” |
| 05 | Car Add Page Create a new page that allows you to add a new car to the database.  The car details are as given in the sample data.  Complete some basic testing whilst developing the page.    **Backup Data**  Use any suitable method (CLI or GUI based) to create a backup of the cars collection in a file named: cars-05.json file or similar. If you make a backup, place the backup into the database/json folder.  **Version Control**  Check, add, and commit files to git:  git status  git add .  git status  git commit –m “**xxxxx Add Completed**” |
| 06 | Car Edit Page Create the “edit car” page that allows the user to edit the car’s current details and save the changes.  Complete some basic testing whilst developing the page.    **Version Control**  Check, add, and commit files to git:  git status  git add .  git status  git commit –m “**xxxxx Edit Completed**” |
| 07 | Car Delete Page Create a “delete car” page that confirms the car to be deleted before actually deleting the car.  Complete some basic testing whilst developing the page.    **Version Control**  Check, add, and commit files to git:  git status  git add .  git status  git commit –m “**xxxxx Delete Completed**” |
| 08 | Car Read Page Create a new read page that shows the details of the selected car.  The page should show a list of collectors who own the car.  Complete some basic testing whilst developing the page.    **Version Control**  Check, add, and commit files to git:  git status  git add .  git status  git commit –m “**xxxxx Read Completed**” |
| 09 | Search Edit the car browse page and add a form that allows the user to search by manufacturer.  The page should use a text field that the user types the name or part name of a manufacturer before either ENTER being pressed or the SEARCH button being pressed.  Complete some basic testing whilst developing the page.    **Version Control**  Check, add, and commit files to git:  git status  git add .  git status  git commit –m “**xxxxx Search Completed**” |
| 10 | To Do’s Make sure that you have checked all the code to see if any *TO DO* items are not completed.  **Which files did you update?**  **Version Control**  Check, add, and commit files to git:  git status  git add .  git status  git commit –m “**xxxxx ToDos Completed**” |
| 11 | Upload / Deploy Upload or Deploy your site to a location such as:   * <https://www.dplyr.dev/> (or similar) which has MongoDB and Laravel support, * <https://dev.screencract.net.au> which has Laravel support, but would need you to connect to your MongoDB Atlas cloud account * Any other hosting company / MongoDB Atlas combination to suit your needs.   Configure the site as needed to allow for the application to be used/tested.  **Site URL**  Add your demo site URL to the ReadMe.md file.  **What is the URL to your website?**  <http://ajsass.herokuapp.com/>  login  user: [admin@test.com](mailto:admin@test.com)  password: asdf1234  **Version Control**  Check, add, and commit files to git:  git status  git add .  git status  git commit –m “**xxxxx Deploy Completed**” |
| 12 | Prepare to Test Uploaded Site Create test data for the site as outlined below:  **Cars:**  Locate *(at least) FIVE* new cars and/or motorcycles that are ‘collectable’ or ‘interesting’, and *not part of the current list*.  Determine their manufacturer, the model, and the recommended retail in Australian Dollars. Provide them with a suitable ‘code’.  Show the data in the table below:   | Code | Manufacturer | Model | Price | | --- | --- | --- | --- | | Audi-R8 | Audi | Audi R8 | 294,877 | | A4 | Audi | **A4** | 55,900 | | Accent | Hyundai | **Accent** | 17,490 | | Compass | Jeep | Compass | 50,217 | | A 180 Hatch | Mercedes-Benz | A 180 Hatch | 57,890 |   **Collectors:**  Identify (make up suitable names for) *at least TWO* new collectors, and add them to the table below. Also provide these new collectors with *at least TWO cars* in their collection, of which *AT LEAST ONE* must be one of your new cars.   | Given Name | Family Name | QTY | Car List | | --- | --- | --- | --- | | Pepito | Lopez | 3 | “MINI-COOPER”, “TESLA-MODS”,”Audi-R8” | | Juanito | Perez | 2 | ?A 180 Hatch”,”Compass” | |  |  |  |  | |
| 13 | Test with Data Test your uploaded site by performing the following:   * Make sure that **all pages** on the site function correctly Use the test data you have created as part of the tests * Test all pages in at least TWO browsers * Take Screenshots (including browser frames) of pages being tested * Add the screenshots to this document in Appendix S: ScreenShots.   Test Data is provided in the following locations and appendices:   * Prepare to Test Uploaded Site * Appendix D: Cars EDIT Data * Appendix E: Cars DELETE Data |
| END | Submission of Portfolio Work To submit the portfolio, do the following:   * Save this document with your answers. * Compress your WHOLE project folder as a ZIP or 7Z file, including **vendor** and **node\_emails**. * Open Blackboard, locate and open the AT2 Portfolio Task 3 assessment * Upload the completed assessment document. * Upload the compressed code to the same submission. * Upload a ReadMe.md file that contains your database name, user name and password so as to enable thorough validation as required. * Click submit.   *All answer documents MUST be submitted in Microsoft Office 365’s Word format.* |

# Bonus

For those who want to practice their skills the following are bonus problems to solve.

*These are not required for completion of this portfolio.*

They may provide a way to improve skills for use in the project or other tasks.

| B1 | Cars Update Add a way to list the price for each vehicle with the year for that retail price.  Modify the data to make sure that the original provided information is linked to 2022.  Modify the vehicles you added so their purchase information is from any two years the car was in production.  Show the year and price list on the vehicle details page.  Show a total value for all vehicle in the database using the last known retail price for each vehicle. |
| --- | --- |
| B2 | Collectors Update Add details to the Collectors that indicates when the collector purchased the cars they own.  Provide a total value for the cars the collector owns. |
| B3 | Advanced Search Add a method for the search to be used on the cars that allows the user to enter data from any field and relevant data will be retrieved. For example “mini” could come under manufacturer or model. |

# Appendices

The following pages contain appendices of useful information.

# APPENDIX A: CODE STYLE GUIDELINES

The following guidelines should be applied to your code as it is developed.

Many may be applied via the use of PhpStorm, PyCharm or similar plugins and code formatting.

### PHP Code (General)

Please refer to the PHP PSRs:

* <https://www.php-fig.org/psr/psr-1/>
* <https://www.php-fig.org/psr/psr-12/>
* <https://www.php-fig.org/psr/psr-4/>

### Applications Built with Laravel

Please refer to the following articles:

* <https://dev.to/lathindu1/laravel-best-practice-coding-standards-part-01-304l>
* <https://dev.to/lathindu1/laravel-best-practice-coding-standards-part-02-a40>

### HTML Code

Please refer to the Google Style guide:

* <https://google.github.io/styleguide/htmlcssguide.html>

### JavaScript

Refer to the Google JS Style guide:

* <https://google.github.io/styleguide/jsguide.html>

### Python Code

Your code will follow the PEP 8 standard.

*Readability Counts   
- Zen of Python*

*Explicit is better than implicit.   
- Zen of Python*

# Appendix B: Cars Data

| Code | Manufacturer | Model | Price |
| --- | --- | --- | --- |
| MOGAN-44 | Morgan | 4/4 | 107000.00 |
| BMW-1 | BMW | 1 Series | 71900.00 |
| BMW-2 | BMW | 3 Series | 111900.00 |
| MINI-3DH | Mini | 3D Hatch | 62825.00 |
| MINI-5DH | Mini | 5D Hatch | 54450.00 |
| BMW-8 | BMW | 8 Series | 359900.00 |
| AUDI-A1 | Audi | A1 | 47800.00 |
| AUDI-A8 | Audi | A8 | 298472.00 |
| MORGAN-AEROC | Morgan | Aero Coupe | 270000.00 |
| VW-AMAROK | Volkswagen | Amarok | 81490.00 |
| VW-ARTEON | Volkswagen | Arteon | 68740.00 |
| ARIEL-ATOM4 | Ariel | Atom 3.5R | 188000.00 |
| ARIEL-ATOM4 | Ariel | Atom 4 |  |
| MINI-CLUB | Mini | Clubman | 70600.00 |
| MINI-CONV | Mini | Convertible | 67880.00 |
| MINI-COOPER | Mini | Cooper | 41800.00 |
| TESLA-TRUCK | Tesla | Cybertruck | 103300.00 |
| AUDI-EGT | Audi | e-tron GT |  |
| VW-GOLF | Volkswagen | Golf | 65990.00 |
| MG-HS | MG | HS | 47990.00 |
| BMW-I | BMW | i Series | 70900.00 |
| BMW-M | BMW | M | 274900.00 |
| BMW-M2 | BMW | M2 | 182500.00 |
| BMW-M6 | BMW | M6 | 171500.00 |
| MG-MGZS | MG | MG ZS | 42990.00 |
| MG-MG3 | MG | MG3 | 19490.00 |
| TESLA-MOD3 | Tesla | Model 3 | 91672.00 |
| TESLA-MODS | Tesla | Model S | 155430.00 |
| TESLA-MODX | Tesla | Model X | 191730.00 |
| TESLA-MODY | Tesla | Model Y | 98172.00 |
| VW-POLO | Volkswagen | Polo | 38750.00 |
| AUDI-Q2 | Audi | Q2 | 52200.00 |
| MORGAN-ROADSTER | Morgan | Roadster | 145000.00 |
| AUDI-S8 | Audi | S8 | 258877.00 |
| VW-TROC | Volkswagen | T-ROC | 42700.00 |
| AUDI-TT | Audi | TT | 14200.00 |
| KTM-XBOWR | KTM | X-Bow R | 16990.00 |
|  |  |  |  |

# Appendix C: Collectors Data

| Given Name | Family Name | QTY | Car List |
| --- | --- | --- | --- |
| Evan | Keel | 8 | “AUDI-TT”, “TESLA-TRUCK”, “AUDI-TT”, “MOGAN-44”, “BMW-8”, “TESLA-MODX”, “MORGAN-AEROC” |
| Jo | Kerr | 3 | “AUDI-S8”, “TESLA-MODY”, “AUDI-A1” |
| Izzy | Kidding | 8 | “MG-MGZS”, “TESLA-TRUCK”, “AUDI-A1”, “VW-ARTEON”, “MINI-CONV”, “AUDI-TT”, “MG-MGZS”, “MORGAN-ROADSTER” |
| Fay | King | 2 | “BMW-I”, “BMW-1” |
| Joe | King | 3 | “BMW-M2”, “BMW-M6”, “MINI-3DH” |
| Raney | Schauer | 5 | “MINI-5DH”, “KTM-XBOWR”, “BMW-2”, “MINI-CONV”, “AUDI-A8” |
| June | Schauer | 4 | “MG-MG3”, “MINI-CLUB”, “MINI-3DH”, “MORGAN-ROADSTER” |
| April | Schauer | 8 | “AUDI-A8”, “BMW-8”, “ARIEL-ATOM4”, “AUDI-Q2”, “MINI-3DH”, “MORGAN-AEROC”, “TESLA-MOD3”, “AUDI-EGT” |
| Al K. | Seltzer | 7 | “AUDI-A8”“TESLA-MODX”, “VW-ARTEON”, “TESLA-MOD3”, “BMW-M6”, “BMW-M2” |
| Dee | Sember | 1 | “MG-MGZS” |
| Justin | Tune | 0 |  |
| Carrie A. | Tune | 1 | “ARIEL-ATOM4” |
| Quinn | Tuplets | 2 | “MG-MGZS”, “MORGAN-AEROC” |
| Colin | Allcars | 7 | “MG-MGZS”, “MG-HS”, “MINI-CONV”, “MORGAN-ROADSTER”, “BMW-M6”, “VW-GOLF”, “MORGAN-ROADSTER” |
| Cary | Baggs | 7 | “MOGAN-44”, “TESLA-MODS”, “ARIEL-ATOM4”, “MORGAN-AEROC”, “BMW-M6”, “AUDI-Q2”, “MOGAN-44” |
| Winnie | Bago | 1 | “MORGAN-ROADSTER” |
| Frank N. | Beans | 3 | “MORGAN-AEROC”, “BMW-M2” |
| Harry | Beard | 9 | “AUDI-S8”, “MINI-COOPER”, “TESLA-MODS”, “AUDI-EGT”, “VW-POLO”, “ARIEL-ATOM4”, “MINI-COOPER”, “AUDI-EGT”, “BMW-2” |
| Al B. | Zienya | 3 | “ARIEL-ATOM4”, “BMW-8”, “AUDI-A1” |
| Cy | Yonarra | 2 | “BMW-I”, “TESLA-TRUCK” |
| Pearl E. | White | 10 | “TESLA-TRUCK”, “MORGAN-ROADSTER”, “ARIEL-ATOM4”, “ARIEL-ATOM4”, “MG-HS”, “BMW-M”, “MINI-5DH”, “BMW-M2”, “VW-AMAROK”, “VW-POLO” |
| Sno | White | 10 | “TESLA-MODY”, “VW-TROC”, “MG-MGZS”, “BMW-M2”, “VW-POLO”, “AUDI-S8”, “BMW-M2”, “BMW-8”, “VW-TROC”, “TESLA-MOD3” |
| Chuck | Wagon | 1 | “TESLA-MODY” |
| Patty | Wagon | 9 | “TESLA-MODX”, “TESLA-MODY”, “MORGAN-AEROC”, “MINI-3DH”, “BMW-M2”, “AUDI-EGT”, “BMW-1”, “AUDI-Q2”, “VW-TROC” |
| Cara | Van | 2 | “TESLA-MODS”, “ARIEL-ATOM4” |

# Appendix D: Cars EDIT Data

| Code | Manufacturer | Model | Price |
| --- | --- | --- | --- |
| MINI-CONV | Mini | Convertible | 68770.00 |
| BMW-M6 | BMW | M6 | 171480.00 |
| TESLA-MODY | Tesla | Model Y | 98170.00 |

# Appendix E: Cars DELETE Data

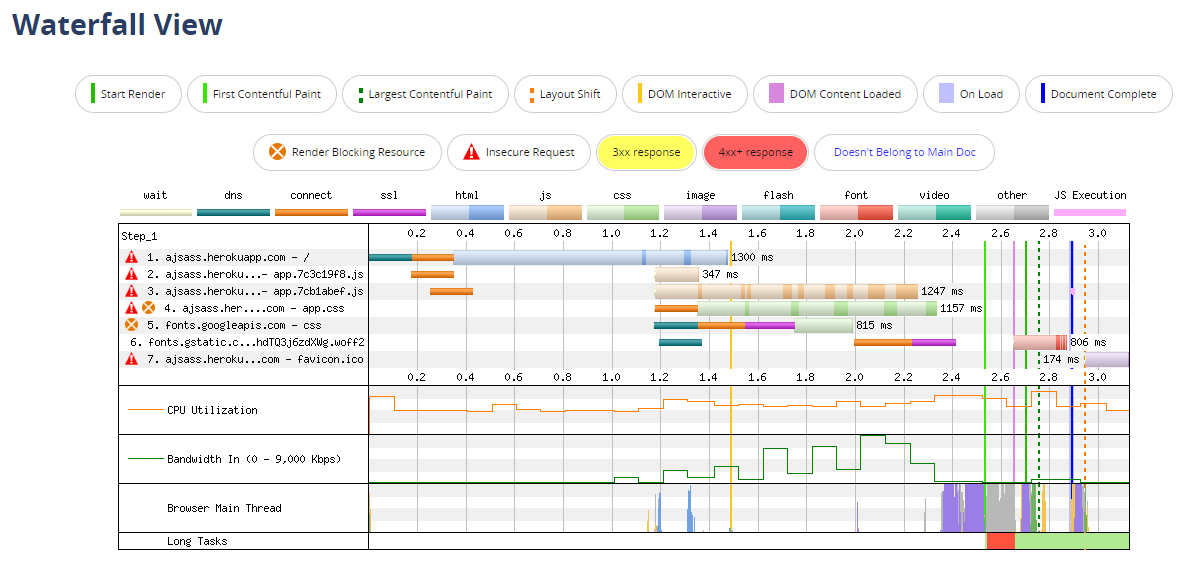
| Code | Manufacturer | Model | Price |
| --- | --- | --- | --- |
| TESLA-MOD3 | Tesla | Model 3 | 91672.00 |

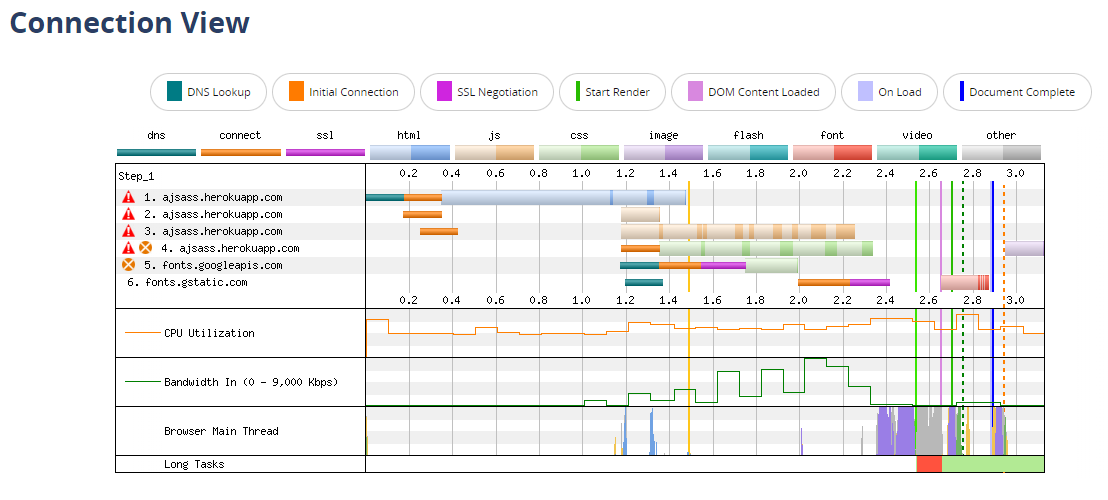
# Appendix S: ScreenShots

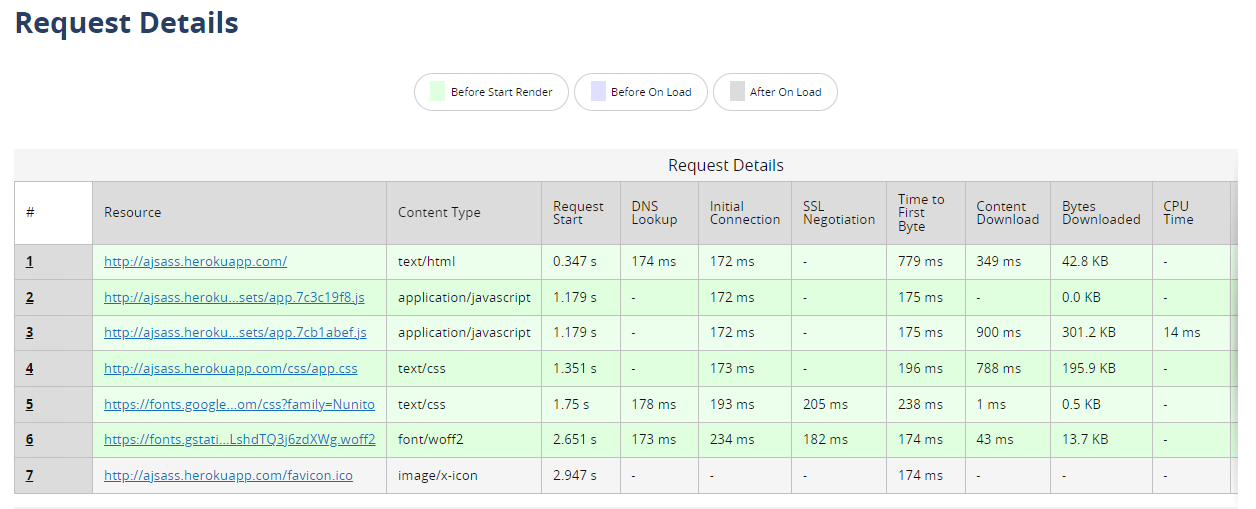
Place Testing Screenshots here.

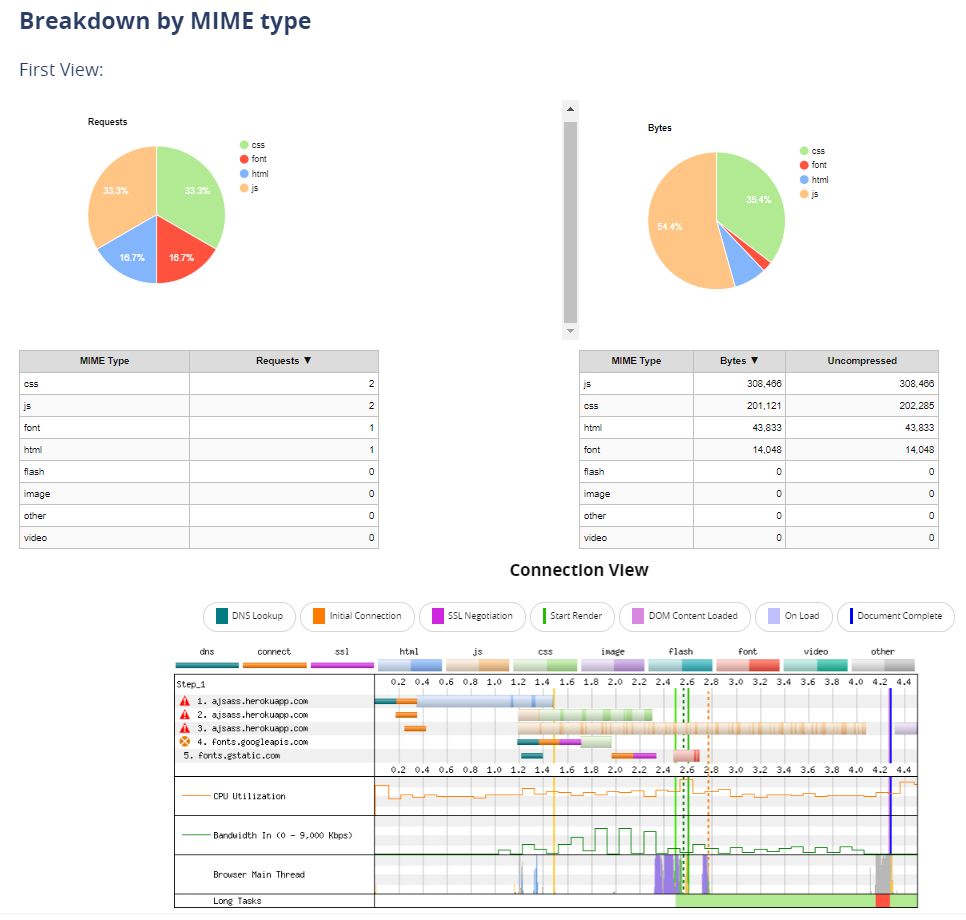
Make sure that they are clear and readable (suggest using a browser window of about 1280 pixels wide).

Label each screenshot clearly.

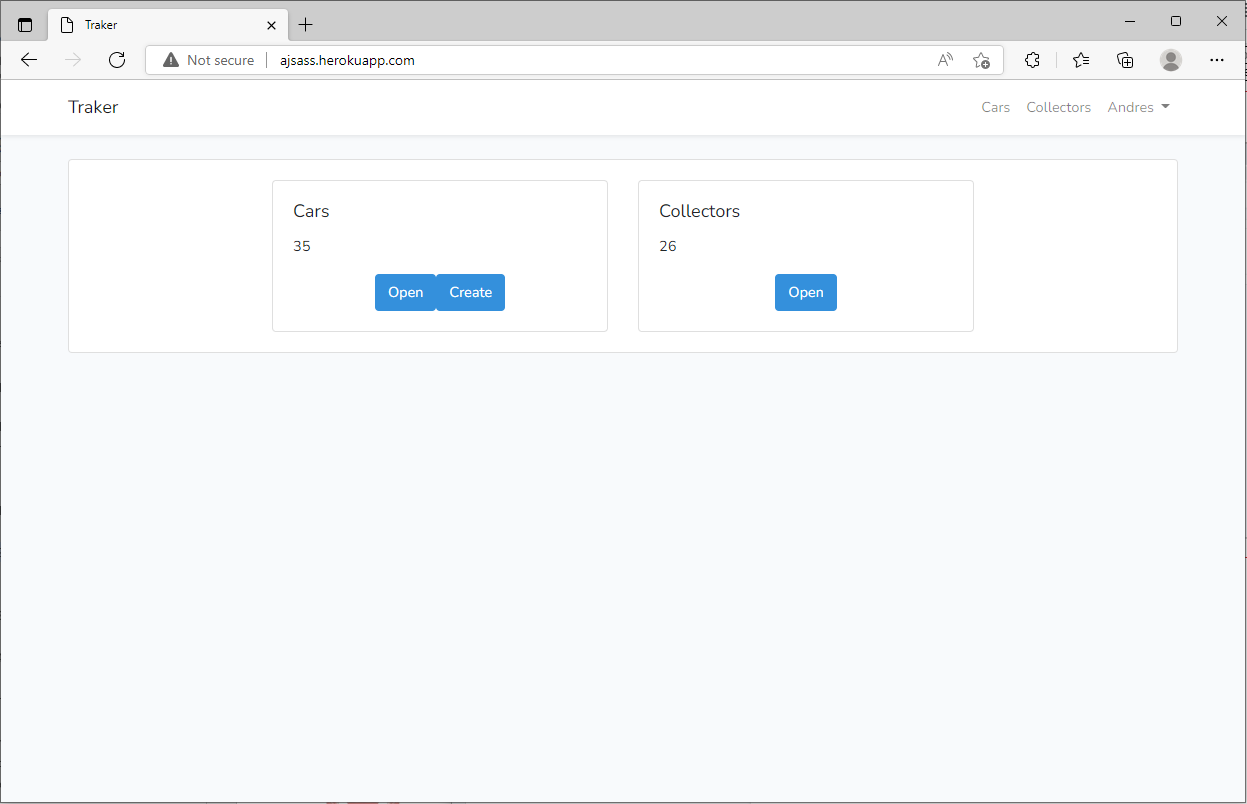


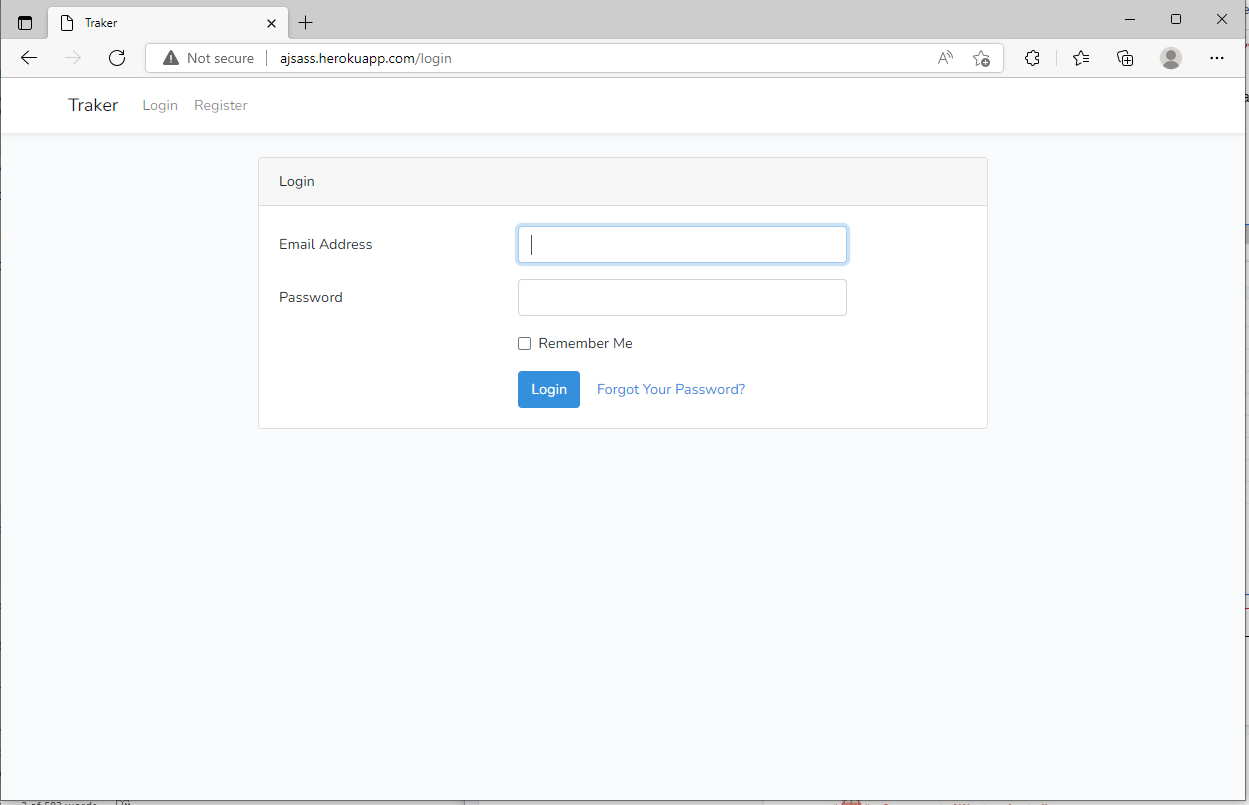


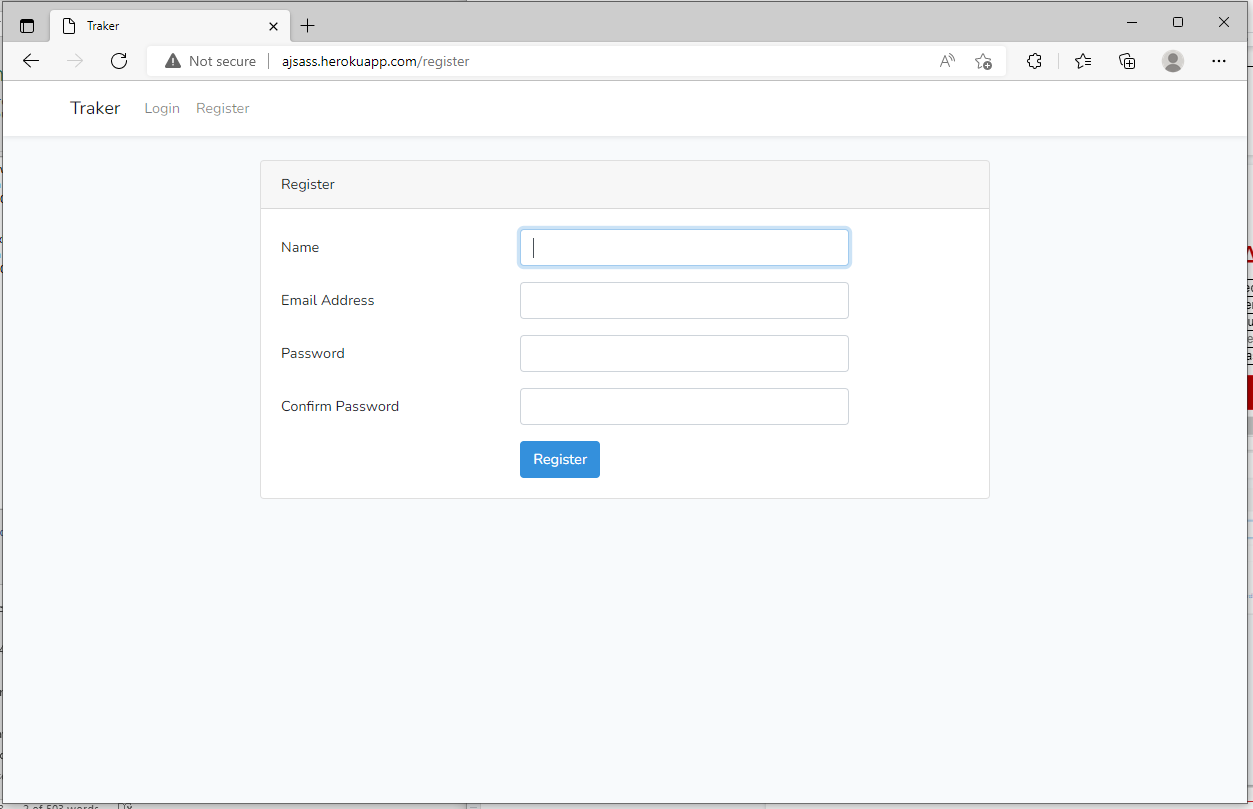


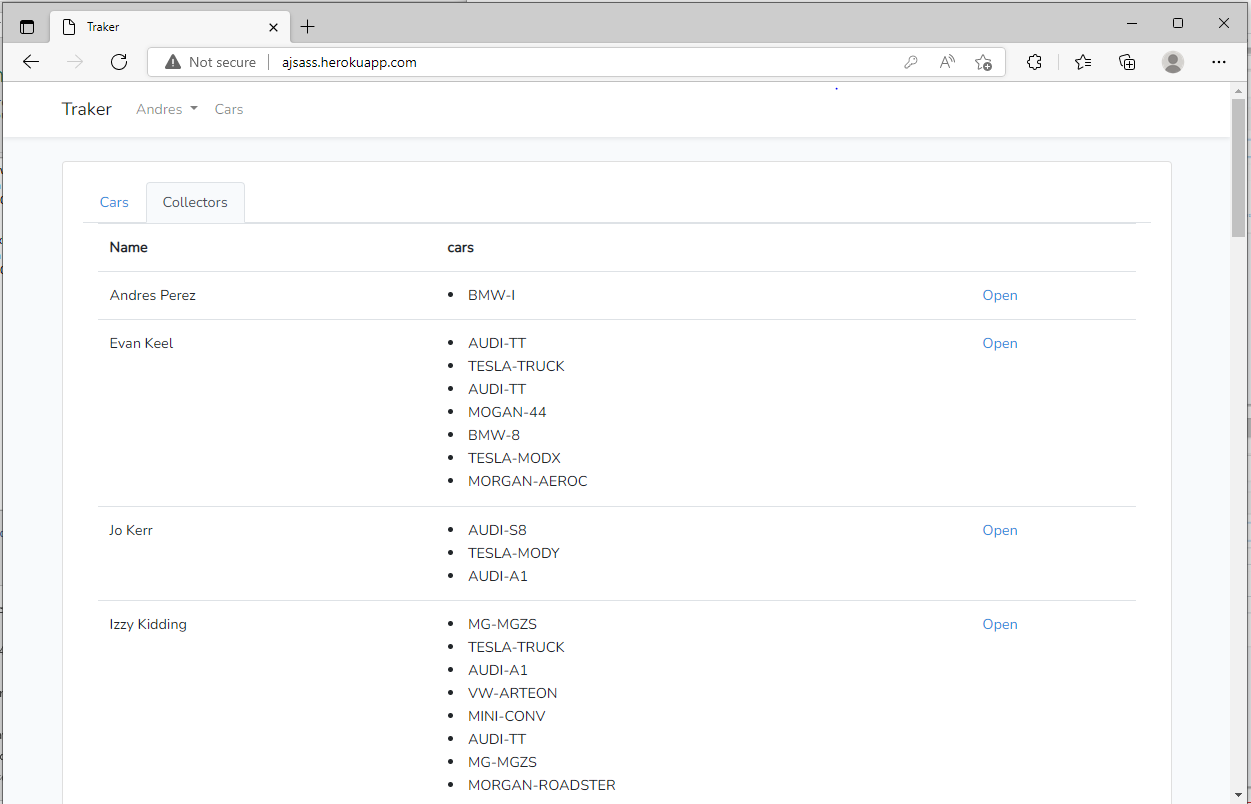


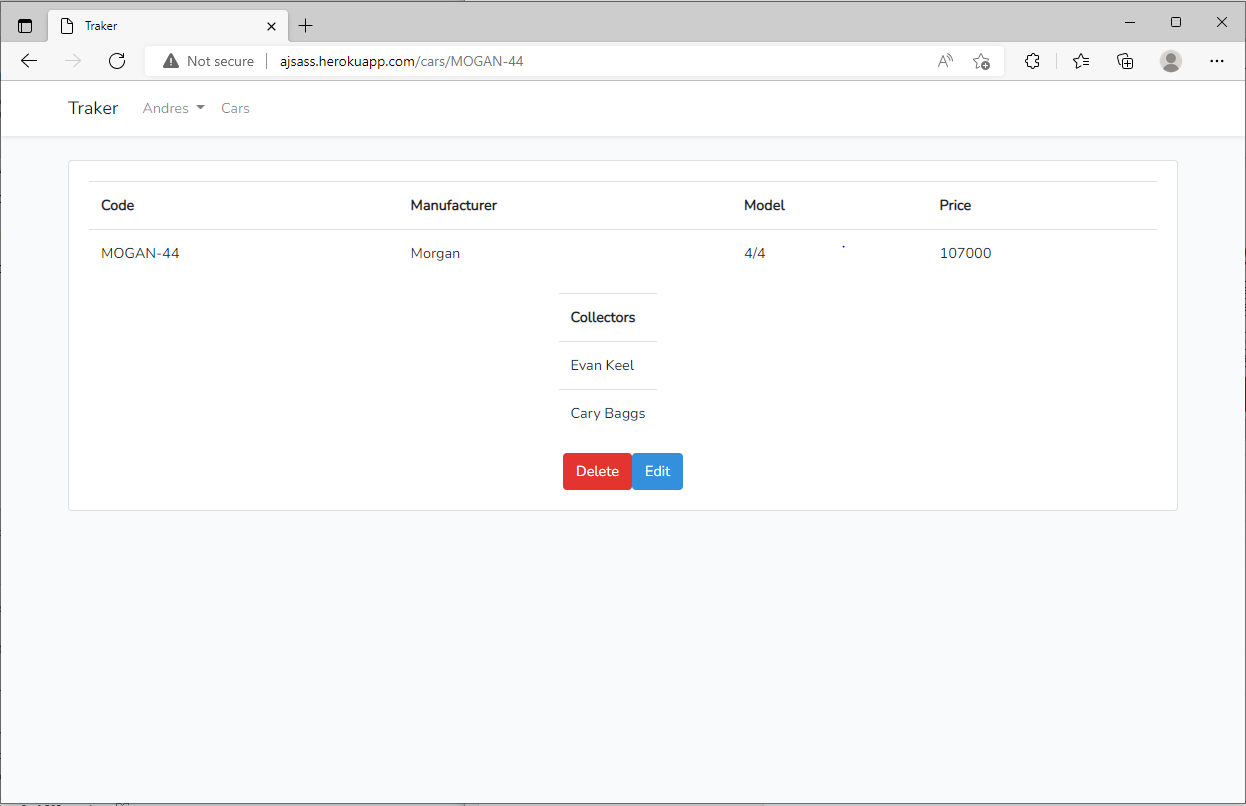
**Microsoft Edge**

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Google Chrome

