Los Santos Customs

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Table of contents

Introduction

Los Santos Customs (LS-Customs) has great ambitions and to fulfill them we need a clear and efficient structure for the project. As LS-Customs is a new way to customize and buy your cars, some functionalities such as customizing, adding to cart and authentication (to give some examples) are needed.

To realize this and comprehend the whole working behind the UI diagrams are particularly good at explaining by simple images. This is why we invite you through the following pages to understand and begin your journey in the world of LS-Customs.

Gant Diagram
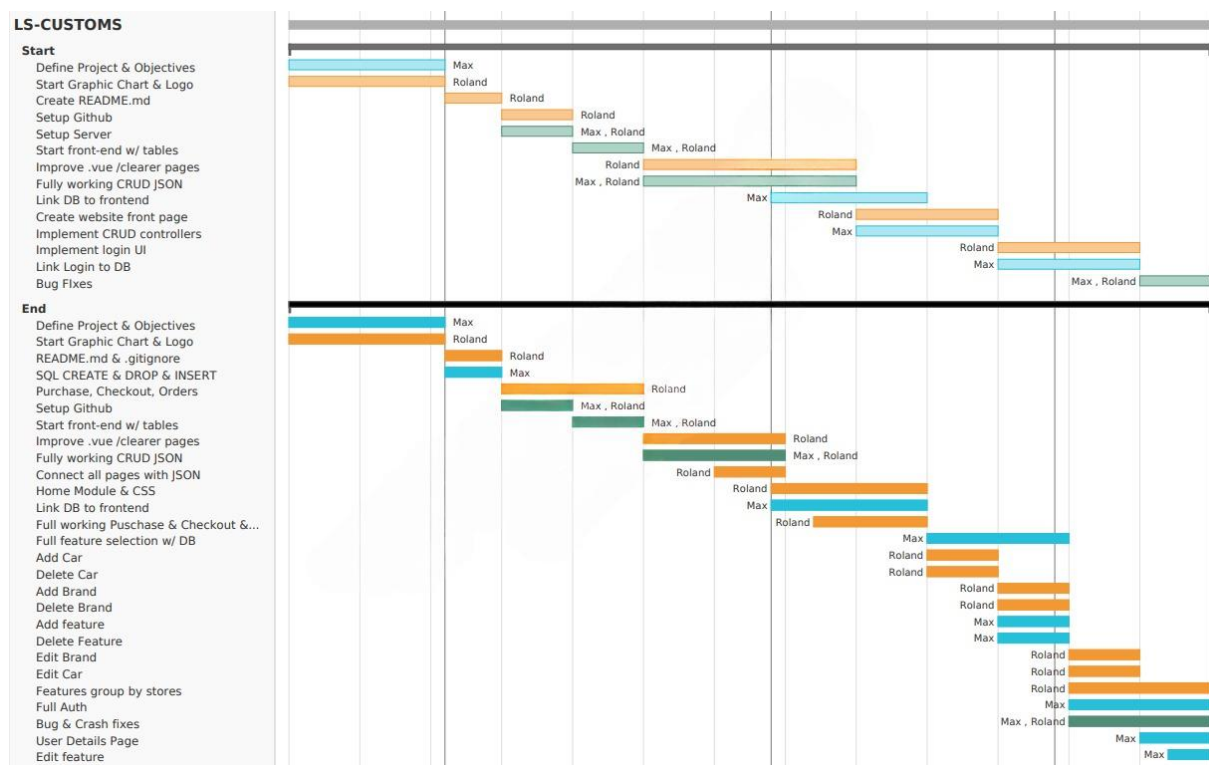
The Gantt Diagram is used to predict the schedule of the project (Start part). But as the project evolves, the diagram evolves too to match the deadlines and the advancement of the team (End part).
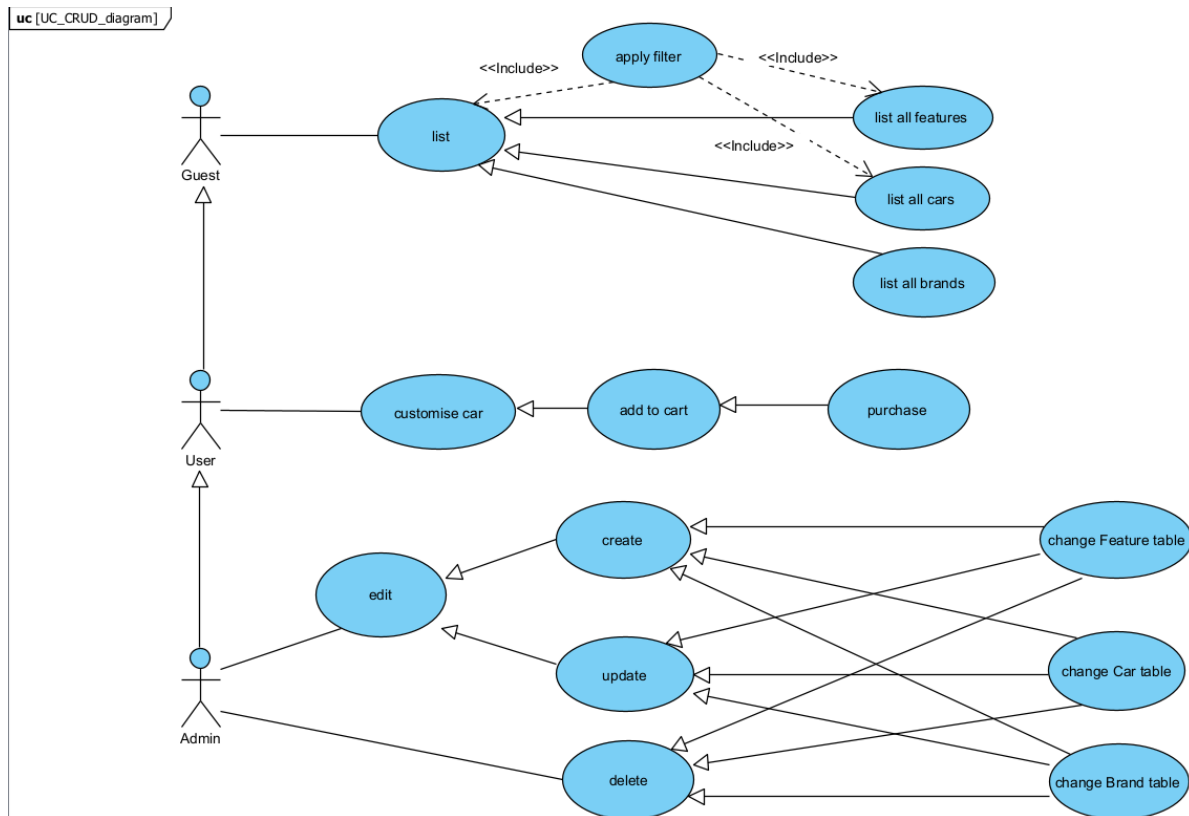
Entity Relation Diagram
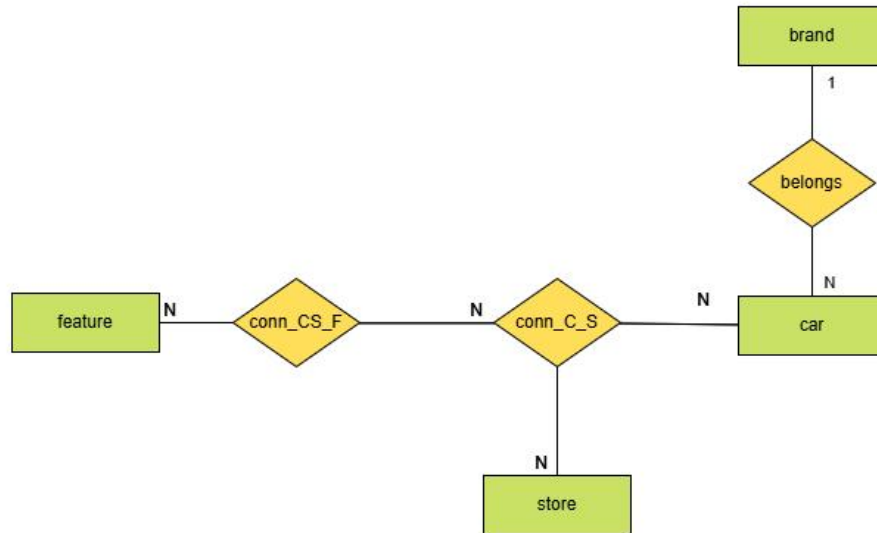
This ER helps to understand how our Database is structured by mapping the relations between the different entities such as feature, store, car and brand. The connection tables (conn_CS_F & conn_C_S) help to customize the car with features and decide in which store is this car.
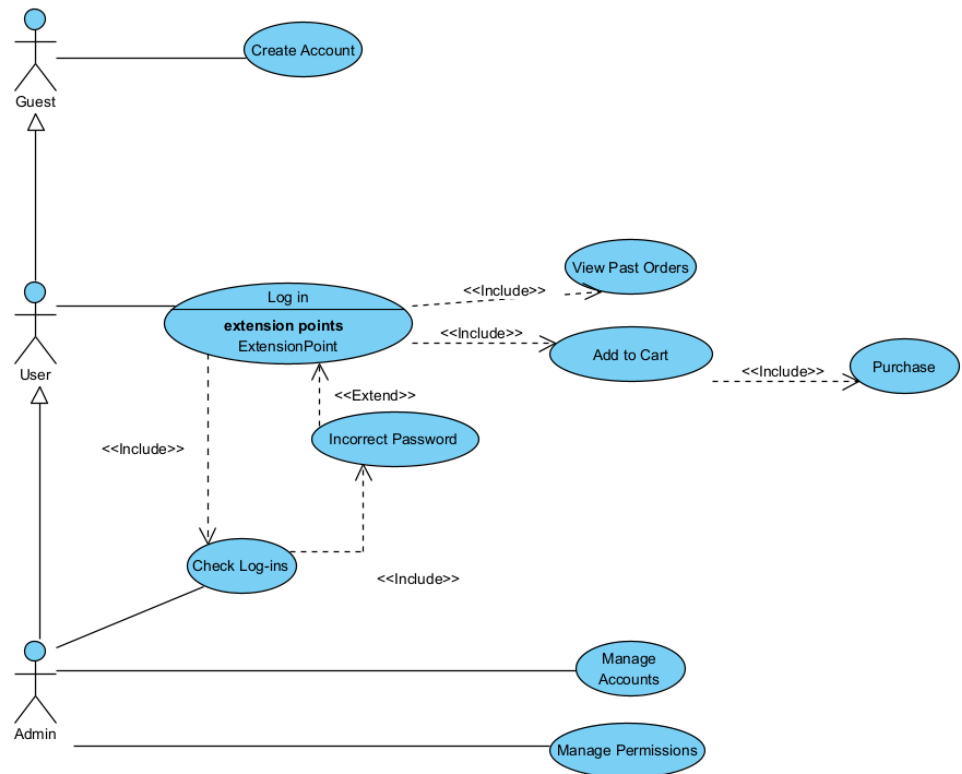
Use Case Diagrams

UC CRUD

This Use Case Diagram details the create, read, update, and delete operations available for the different actors involved. Here, guests can only list all cars, brands and features. Users can process the same operations but by creating an account, they can also manage their orders and purchase cars. Finally, the admin can edit every features, cars and brands.
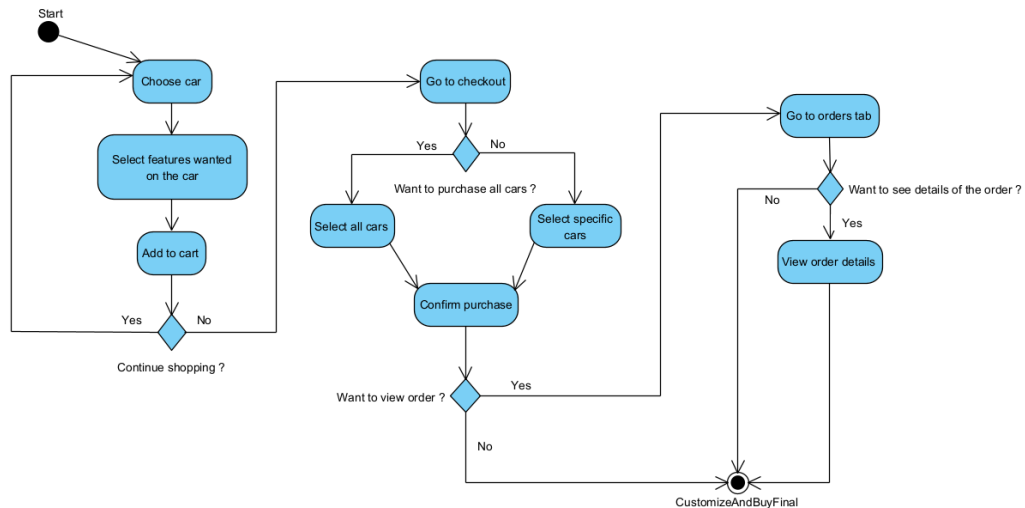
UC Login

To focus more on authentication, we create this Use Case Diagram to simulate the different options to register and the different permissions of each guest, user and admin people.
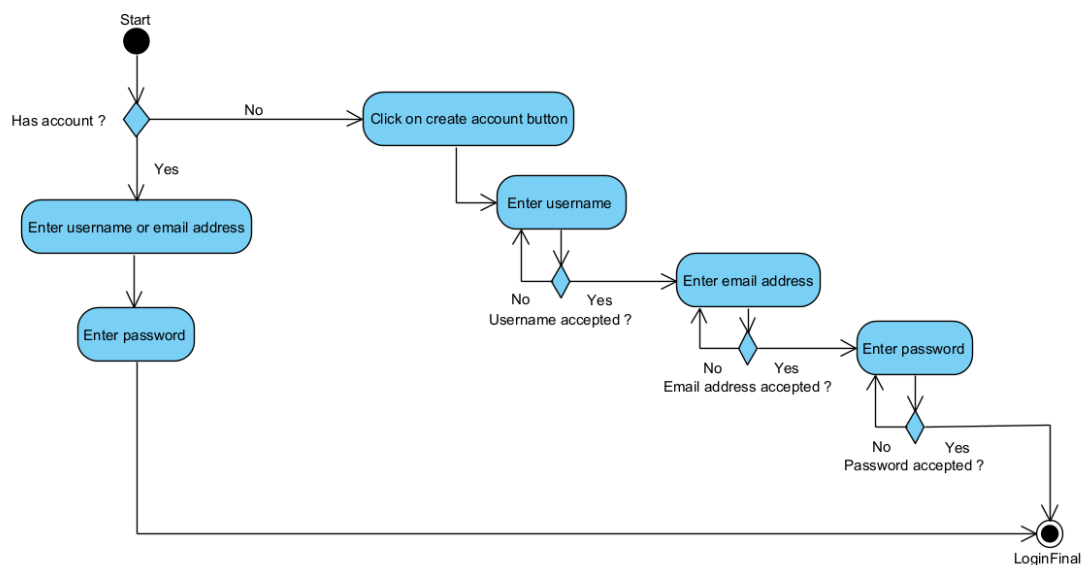
Activity Diagrams

Customize & Buy

This diagram focuses on the different steps to customize a car and buy it. The user can make several decisions that will impact his experience. For example, you can either select one car and purchase it or select one car, continue shopping, purchase the second car, and then view the order.
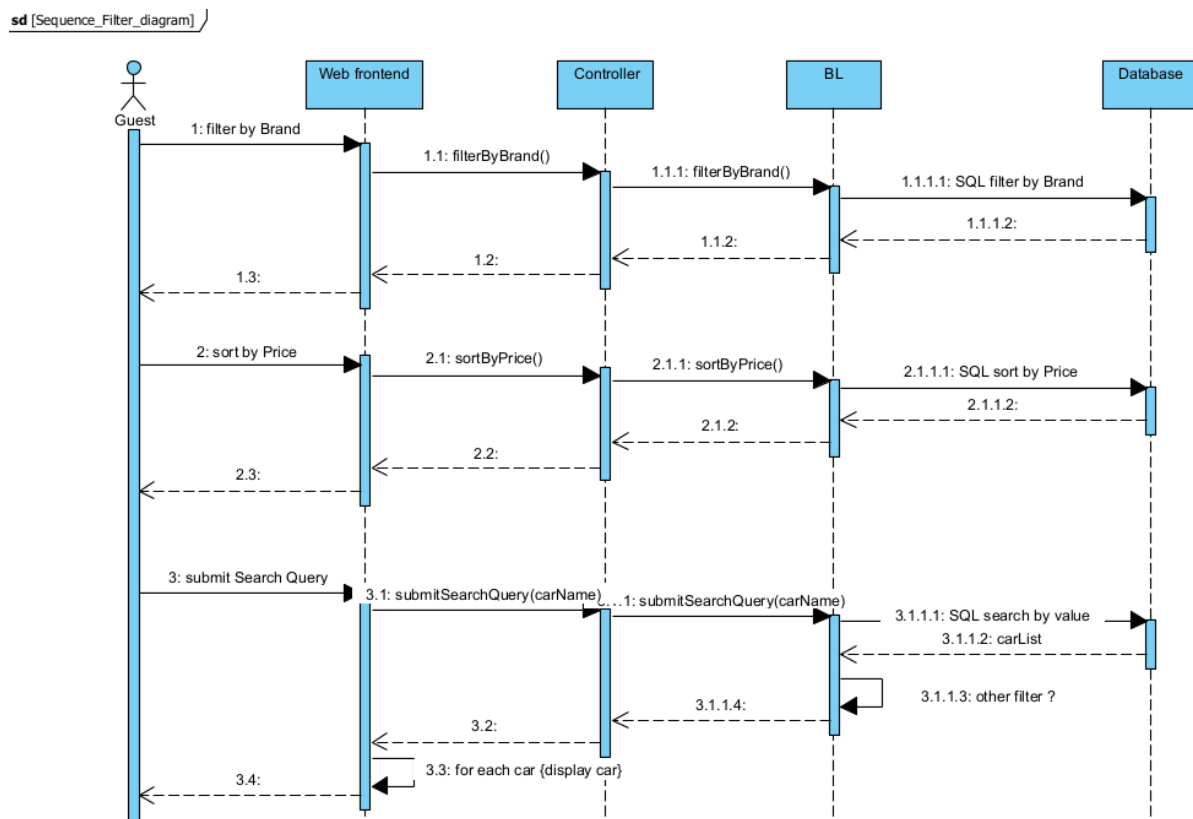
Login

Similar to the Use Case Login Diagram, this activity diagram provides a more detailed sequence of the actions taken Register/Login. You can see that several steps are needed because we need at least a username, an email address and a password to ensure the security of our website and our customers.
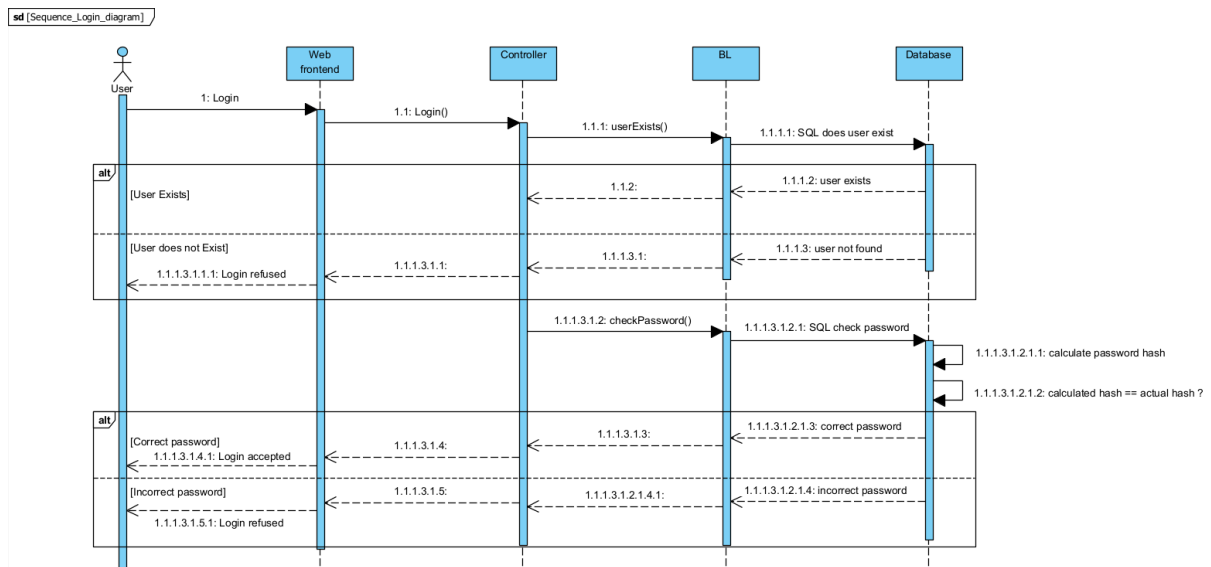
Sequence Diagrams

Sequence Filter

This diagram illustrates the interactions between the system components when a user applies filters to search for specific car models or customization options. We implemented filtering by brand, sort by price and a search option to simplify the user's actions.
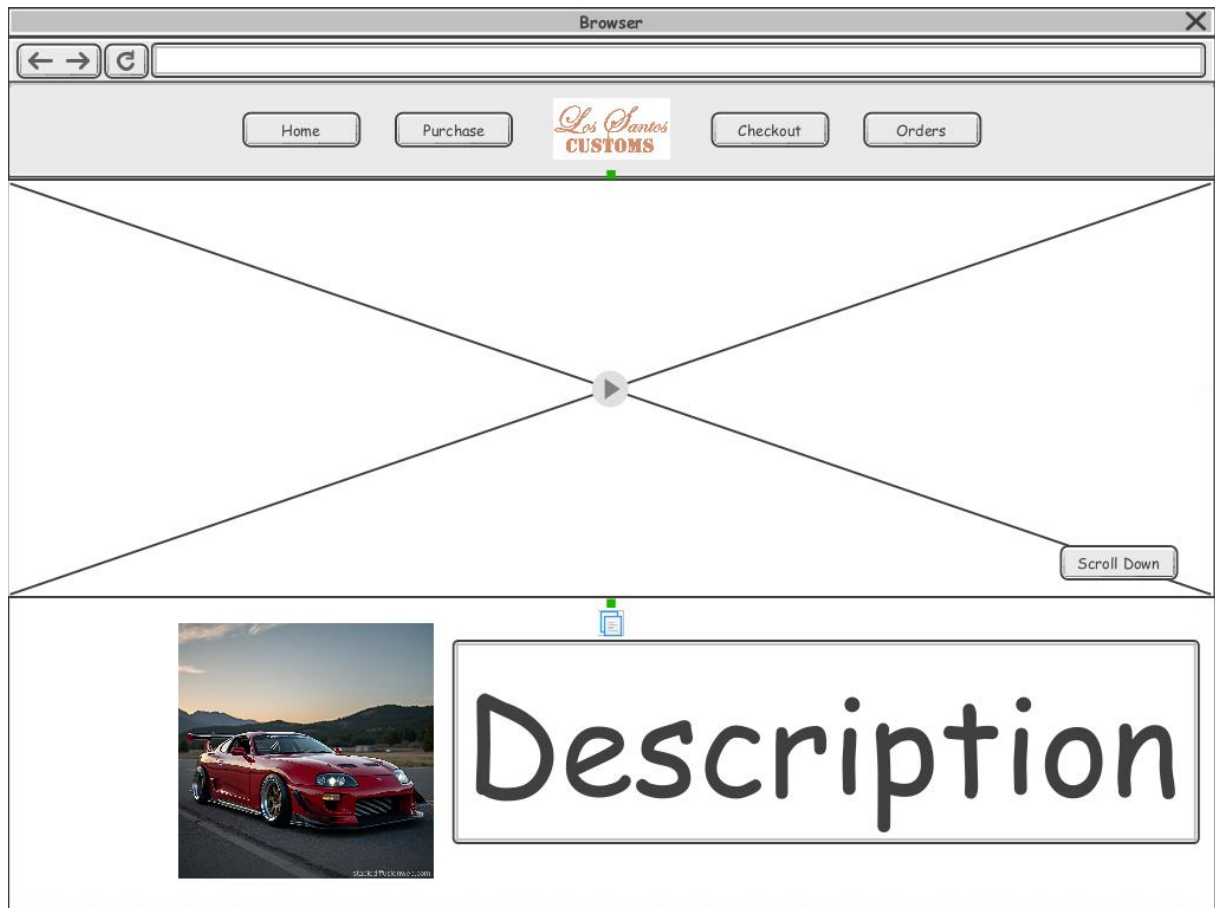
Sequence Login

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The Sequence Login depicts the flow of operations during the login process, showing the interaction between the user, the web front-end, the controller, the Business Logic and the database. It shows the different operations between each layer.

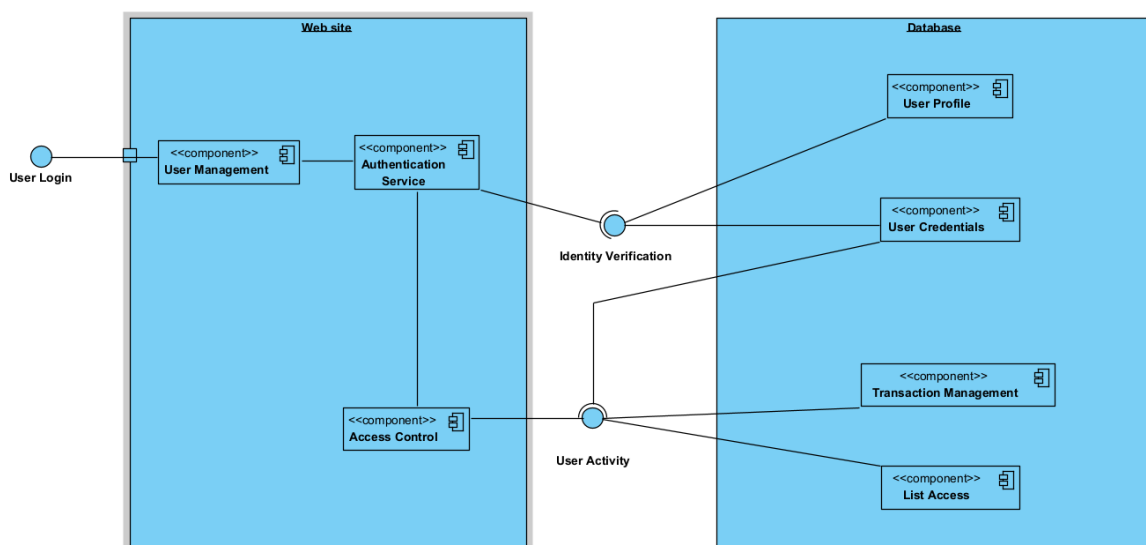# Wireframes

Home Page

Purchase Page

Component Diagrams

Customize
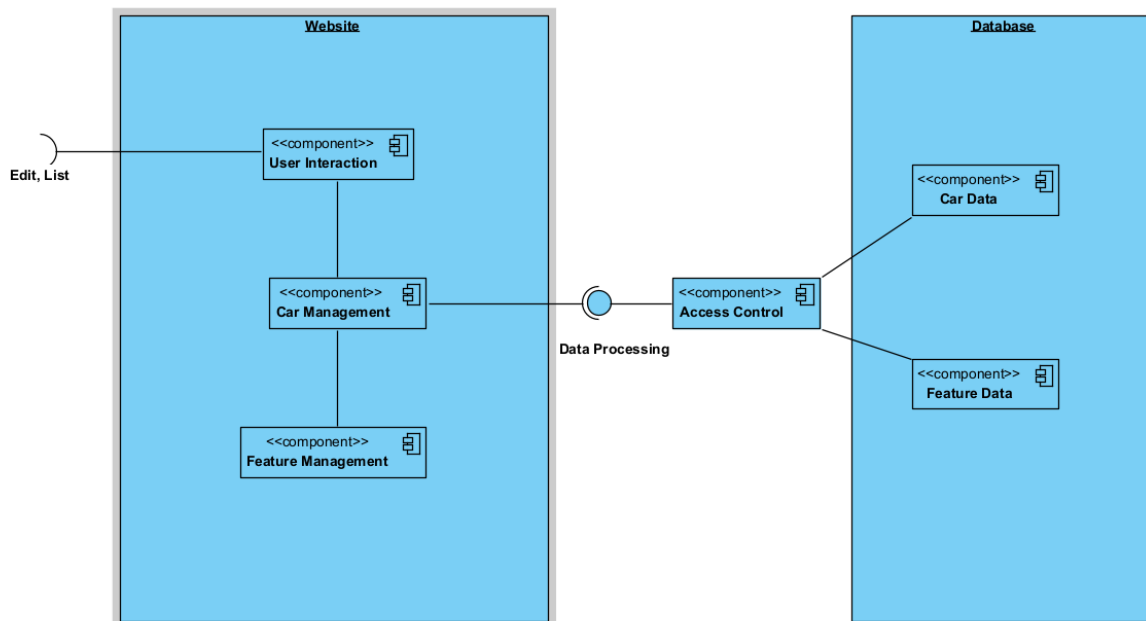
This diagram displays how the editing, listing and choosing actually works. It shows the links between our database and website when someone tries to perform these actions.

Authentication

This one shows the different requests sent to the database and the different access each process can have depending on the type of connection the customer is using. As an example, for a simple guest the website does not need to access the account component but can still list the cars.

Class Diagram
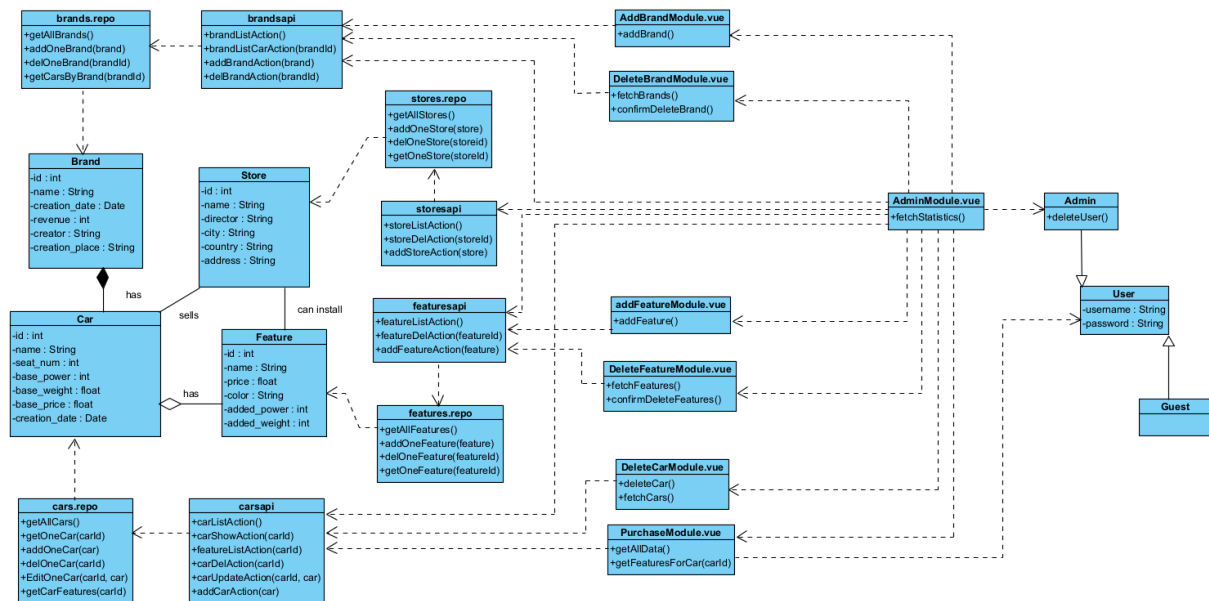
The Class Diagram shows the interactions between every entity in all the processes involved in our website. You have the basic entities of our database, but they are ruled by other previous entities. And for example we have the database tables (Car, Brand…) managed by the repositories (cars.repo, brands.repo…) which are ruled by the apis (carsapi, brandsapi…). Finally, they are involved by functions such as addBrand or addCar.