Design Document

EasyWheelz

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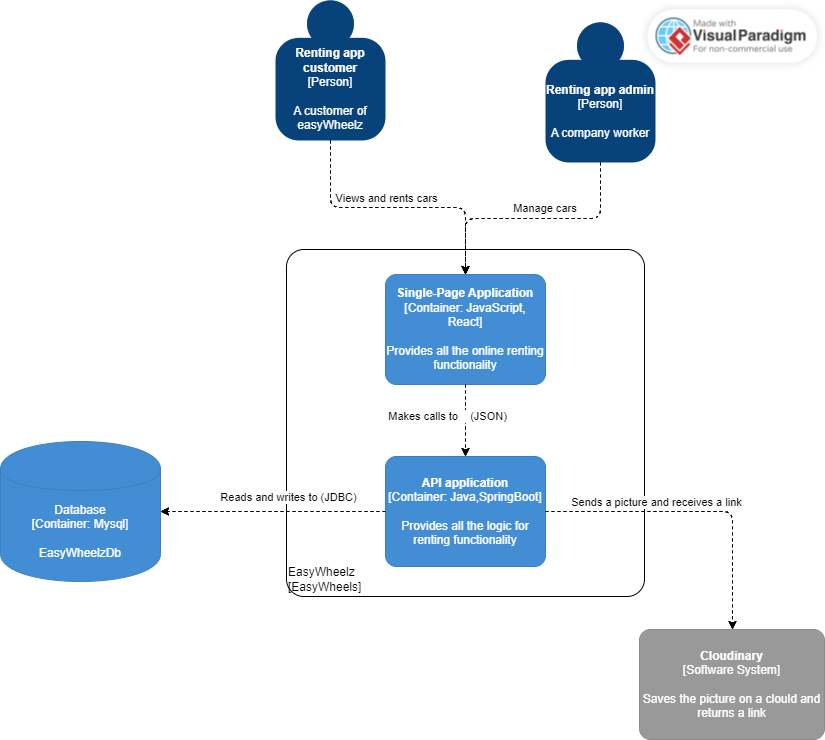
# C4 architecture

## C1

My application will be used by 2 types of users - Customers and company employees. It will be using an external API for saving the photos more efficiently.

## 

## C2



For this project the technologies that will be used are MySql, SpringBoot and react.

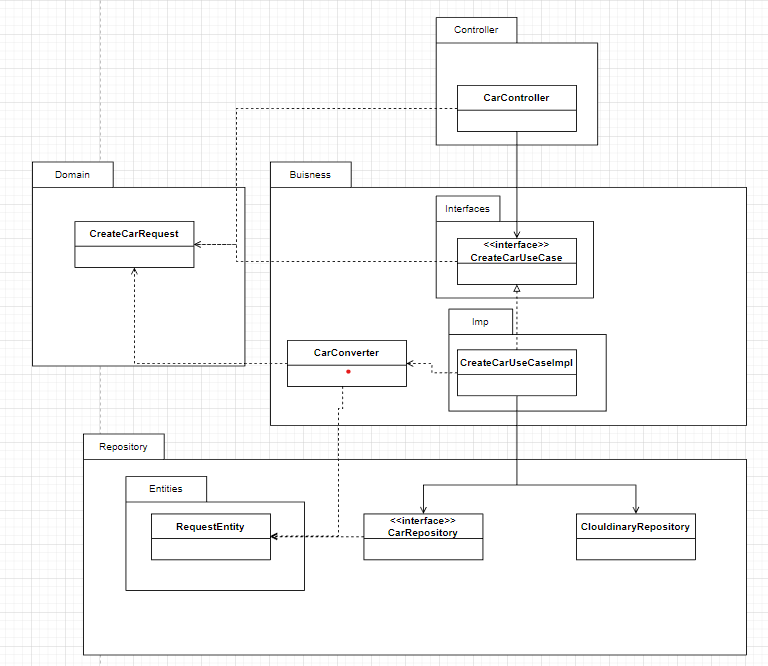
1. MySQL is a popular relational database management system that is known for its stability, reliability, and scalability. It can handle large amounts of data and is widely used in enterprise applications.
2. Spring Boot is a popular Java-based framework for building web applications. It provides a number of tools and libraries that make it easy to develop and deploy applications quickly and efficiently.
3. React is a popular JavaScript library for building user interfaces. It is fast, efficient, and easy to use, and it can be used to create dynamic, interactive web applications.

## C3

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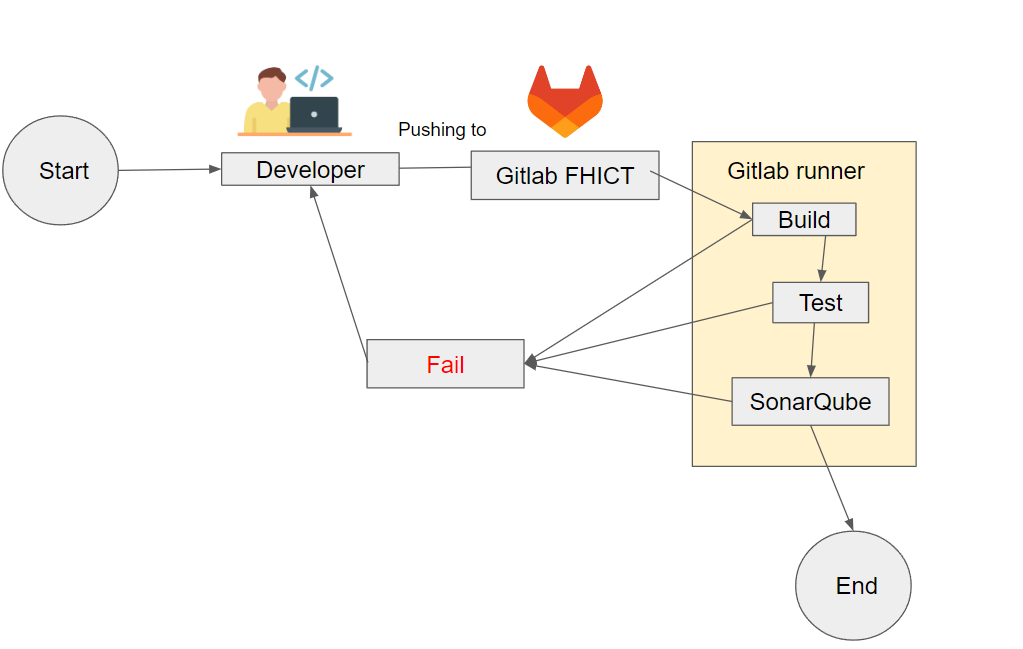
In the C3 I wanted to have a deeper look on how the connection with the external API is going to look like. The Repository will be sending a photo to the API and after receiving the link it will save it in the database. Here the single responsibility principle is used.

## C4



In the C4 I wanted to show how my backend architecture is going to look. The controller is using the CreateCarUseCase which is implemented by the CreateCarUseCaseImp. The implementation uses the CarConverter in order to convert the requests to the Entities. There are two repositories, CloudinaryRepository which saves the photos to an external api and the CarRepostiory which Extends JpaRepository.

## CI diagram

This diagram represents the CI in my project works. When the developer pushes changes to gitlab a pipeline is triggered. The process is finished if all 3 stages of the pipeline are successful and if not the developer will have to rework the changes.

# Architecture constraints and design decisions

Together, the technologies mentioned(C2) can help create a full stack application that is both reliable and efficient, and that can scale to meet the needs of my users. MySQL is stable and efficient for storing and managing data, while Spring Boot provides a robust framework for building API. React provides a flexible and powerful frontend that allows to create dynamic and interactive user interfaces.