

APP *RENTCAR*



Project idea

the introduction:

my project is a car rental and management system based on Spring Boot technologies for back-end development and Vue.js for front-end development. The project aims to facilitate the car rental process between owners and tenants, while providing a smooth and efficient user interface.

Problem statement:

The problem is that car owners often have cars that they do not use regularly, which results in wasted financial potential. On the other hand, individuals who need to rent cars have difficulty finding suitable and affordable options



the solution:

We provide an electronic platform that enables car owners to rent their cars to individuals in an easy and safe way. The platform allows users to register their cars, manage reservations, and track sales. The platform also provides renters with multiple options for available cars, with advanced search capabilities and competitive pricing.





Target audience:



1- Car owners who want to make additional income by renting their cars.



2-Individuals who need to rent cars for short or long periods at reasonable prices.

Product Description:

The product is an electronic car rental platform that includes the following main functions:

Register users and manage their accounts.

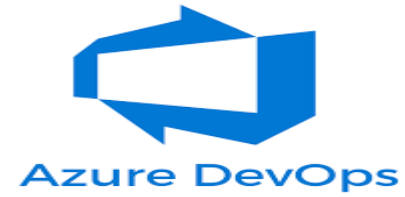
List cars with their details and photos.

Advanced search system to find available cars.

Manage reservations and track vehicle status

Secure electronic payment system

Used equipments:



Demo

Technical challenges:

Examples of technical challenges and how to solve them:

Back-end and front-end integration: Using RESTful APIs to enable communication between Spring Boot and Vue.js.

Real-time reservation management: Using powerful databases such as MySQL and synchronization technologies to ensure data accuracy.

Security and data protection: When registering and logging in via a token.

AGILE

Special process:

I use the Agile methodology to develop the project, which enables us to divide the work into short sprints ranging from two weeks to two weeks. In each sprint, I focused on achieving certain goals and improving the productTasks are prioritized based on their importance and impact on users

Example of work breakdown using Agile:

Sprint I: Create the basic backend

Race duration: one weekmission:

Create a data model:Design and build backend templates using Spring Boot.

Create forms for users, cars and reservations.

Create a service repository:

Create data warehouses to interact with the database (such as JpaRepository in Spring Boot).Services development:Developing services needed to manage data and interactions between repositories and controllers

.Creating controllers:Develop controllers to create APIs to interact with the front end.JWT security implementation:Develop and implement an authentication system using JSON Web Tokens (JWT) to ensure security of communications between client and server.

Sprint 2

Front-end development and logging Race duration: one week mission:

Developing the login interface for users:

Design and development of login page using Vue.js.

Connect login page with backend API to verify user data and generate JWT. Registration of owners and tenants:

Developed landlord and tenant registration pages using

Vue.js. Preparing data entry forms and interacting with backend API to register new users. User experience and UI

improvements: Implement UI improvements to ensure a smooth and fast user experience. Testing the interaction between front-end and back-end to ensure all features are working

properly. With this division, we ensure that tangible progress is achieved in the project on a regular and systematic basis, with the possibility of making adjustments

THANKS