

ÉCOLE PRATIQUE DES HAUTES
ÉTUDES COMMERCIALES



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Development of a car rental management information system

Technical defense

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1 What

Before i proceed to describe how this car reservation system will be developed specifically for my client, let's first take a closer look at what's exactly the car rental booking software.

From its name, it's an innovative booking software designed for cars, motorcycles, boats, or trailer rental companies. It's a secure platform that offers an easy and fast way to smoothly manage car rentals and website reservation systems that makes it an ideal booking software for any rental business.

I will be implementing a custom car reservation solution for my client that maximizes efficiency when it came to automating all car reservation tasks and receiving up-to-date important business statistics.

2 Problems

Personally speaking, i have found myself in a situation trying to get a car over the phone but all lines seemed busy, or maybe i was in a noisy place, where it's difficult to speak, or vice versa, somewhere i had to be quiet. A tricky task at times.

Modern life is busy and dynamic. No wonder people lay their hands on anything that can make things quicker and easier. Car rental software development significantly simplifies the entire process of booking a car.

My client has some personal vehicles at disposal for people looking to rent a car for a given period. But for the time being my client runs fully his business on his phone(s) by receiving calls of people who want to rent some of his vehicle or those that need a car for a certain period, but does not have the desire or opportunity to buy it.

He wants to go digital and to accept online reservations and manage his fleet with ease. In today's digital environment, users would rather book cars online instead of calling the rental company to make reservations. If you are running a car rental business, developing a car rental software becomes a must.

I got in touch with him to implement a well-designed car rental system to help not only him accept online reservations and manage his entire fleet but as well as his potential customers reserve available cars online. This car rental system should allow him to run his business smoothly and effectively.

3 Goals

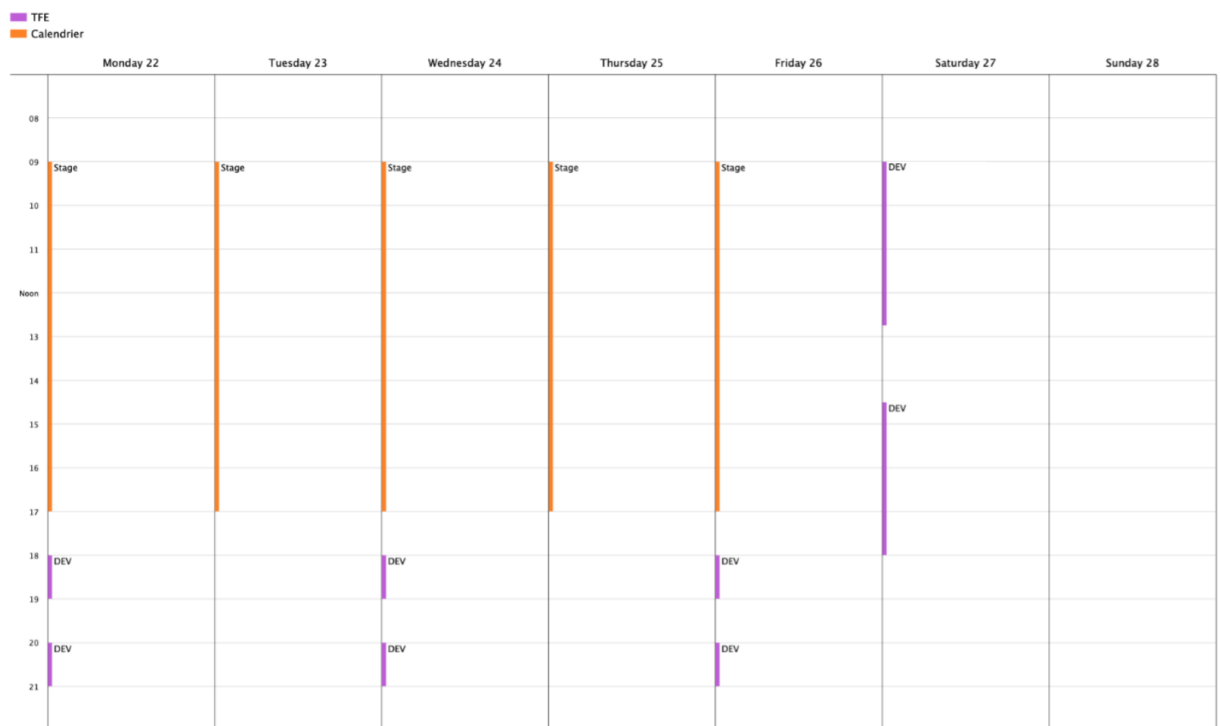
- A customer self-service platform to view vehicle availability in real-time,
- 24/7 accepting online reservations,
- Removing the paper-based processes,
- Detailed analytics and statistics, i.e., the software should deliver an up-to-date analytics to see how his business performs,

- Avoiding risks of overbooking and the factor of human error,
- The reservations timeline to track the status of the vehicle due for maintenance, for delivery or pick-up, or currently on the road,
- Cuts down on administration processes to improve business efficiency,
- Making data-driven decisions based on detailed statistics,
- Feedback system for clients to give reviews and rate the service,
- Provide an estimation of the influx of bookings to prepare for future demands.

4 Methodology

Agile. I will be meeting (virtually or in person) the client every 2 weeks to discuss my progress and to assess his input.

5 Planning



6 Progress

- Contact the client on the technical user stories
- E-R diagram
- Relational diagram
- Use case diagram
- Class diagram
- Git repository
- Implement the client's user stories in details
- Back-end and front-end setup
- Deployment setup