

**COMP3900/9900**

**2022 Term 2**

### **Project 5**

## **Car Space Renting System**

There is, in average, only one parking space for every six drivers in our urban cities. Consequently, finding parking is just about impossible. Yet there is so much unused space for the most part of the day that is hidden, locked away and private. Instead of building more unsightly parking lots, let's make the most efficient use of the existing unused space. That is where **Care Space Renting System** comes into play. This project aims to implement a Web-based platform for car spaces you wish to provide or make a booking for. It allows providers to register their car spaces they can make available to consumers on the platform. Consumers can then look for available car spaces that they are interested in, view their details, and place a booking for the one they are interested in.

There are three types of users: admin, provider, and consumer.

The developed system should do, at least, the following:

- **Provider** must be able to register a new car space, the cost per hour/day, availability, bank account details, and other details.
- **Provider** must be able to update data of her/his existing car spaces.
- **Admin** must be able to view/update/delete information of all registered car spaces.
- System must be able to calculate the total cost incurred for parking based on the time of booking.
- System must be able to issue bills to consumers.
- **Consumer** must be able to pay bills online.
- System must be able to make payments to provider's bank account (minus **15%** service fee).

- **Consumer** must be able to register for the service and enter personal and vehicle details.
- **Consumer** must be able to find a car space from the list of car spaces registered in the system.
- **Consumer** must be able to view the details of a selected car space such as the address, availability, and worth per hour/day.
- **Consumer** must be able to book an available car space and specify the duration of the booking.
- **Consumer** must be able to cancel the booked car space.
- System must be able to authenticate admin, provider, and consumer before updating any sensitive information.
- System must be able to accept booking of car spaces based on availability.
- System must be able to auto-cancel reservation if the consumer fails to succeed in among the window period.
- **Consumers** can browse through their bookings and express their content with a car space they have completed one or more bookings for by liking it on the platform.
- System must provide consumers with recommendations for car spaces they have not booked yet but may wish to.

You need to come up with, at least, eight (8) functionalities including, at least, two novel functionalities with respect to existing related car space sharing systems.

## Useful Links

1. <https://www.parkhound.com.au/>
2. <https://www.sharewithoscar.com.au/>
3. <https://www.parkingmadeeasy.com.au/>