

DIT045 Exemplar 6: Parking Garage

Winter 2018

Summary

A multi-level parking lot currently measures the occupancy at each level using sensors. The number of free spaces for a particular level is displayed to drivers as they drive by the entrance for that level. This number is generally accurate; occasionally it is verified by parking lot attendants, who walk around the lot and count vacancies on each floor.

Despite the sensor information, often congestion still occurs when drivers drive around looking for vacant spots. In some cases, drivers will give up and choose to park elsewhere. The parking lot managers want to avoid congestion, maximize vehicle throughput and therefore profit. Managers must keep in mind vehicle safety and security, both when drivers are driving and parking and when vehicles are parked. They want some software/app/technology solution to help solve their problems and improve the operation of their parking garage.

More Detail

There are already existing app and software solutions to help people more easily find parking spaces. For example, Spothero (<https://spothero.com/>) and Parkmobile (<http://us.parkmobile.com/>). These apps work across multiple locations. In this case, the solution should mainly work for one location, for one company, although expansion to multiple locations in the future is always possible. How would such a solution interface with users? What would it do? How would it solve the problems of the parking lot? Could it interface with other, external systems? Will the app be free or paid? Different levels of service? Can drivers interact with each other? Should they? How to improve driving safety while parking? How can user privacy be protected?

Novelty

It's fine to take inspiration from existing software and tools, but the requirements for your products should finally describe something which is sufficiently unique and could be a potential competitor to existing applications. Apps like those mentioned above can serve as a starting point, but your final requirements and UX design should be unique and specific to the problems of the parking lot.

Further Information

This description is intended to give a good start on developing requirements for the potential system. It's possible that further information or clarifications may be needed in order to model and specify the requirements. You can ask the various stakeholders involved in the domain questions via PIMs to the instructor. Ask a clarifying question, making sure that you indicate which stakeholder you are asking. The "stakeholder" will provide you an answer.