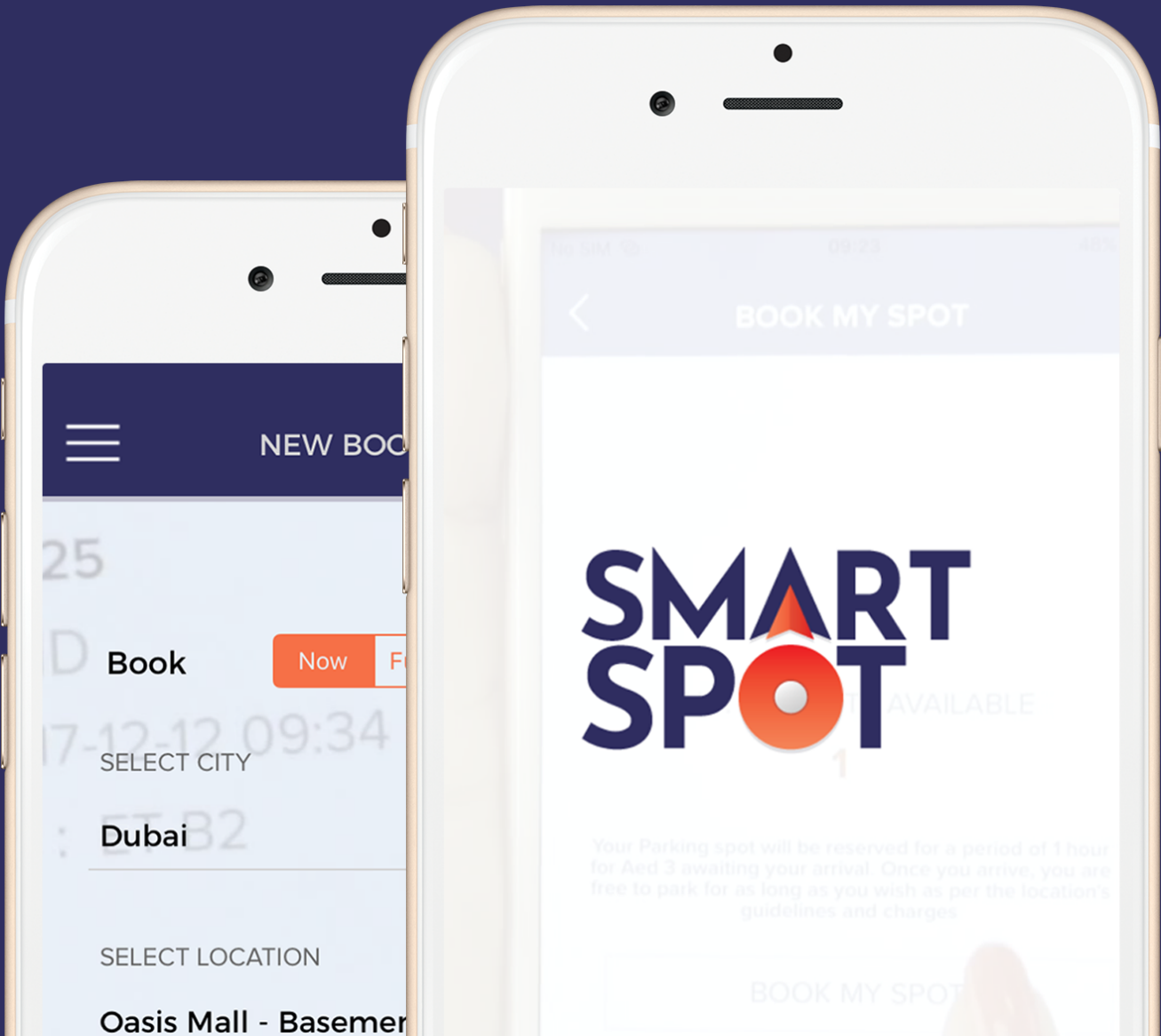




CaseStudy MobileApplication Development-Smart Spot



The Client

Smart Spot app is a revolutionary solution to the tedious problem of finding a parking spot. Whether you are heading to the mall or work, circling the parking area is a common phenomenon unless you leave home early and beat the others to a good parking spot.

The easy to use app allows its users to search for a parking spot even before they leave home. Users can also book a parking spot from wherever they are to save precious time in looking around for a place to park.



The Challenge

The client wanted to create an app with an intuitive and easy to use interface to ensure it stands out in the crowd. The main challenge was to integrate the mobile app with the IoT server and then connect the server to the parking device to enable the users to search and book parking slots in advance, seamlessly.

In short, despite a technically complicated model, we were required to design an app that looked great and offered one-click functionality to users. Another challenge was to include a payment gateway that automatically charged the customers' saved cards in a safe and secure manner.





The Solution

The team at DCI brainstormed the requirement and approached the challenges in a planned manner. We came up with the following action plan:

Parking Database

We built a database with the parking details of various malls. Once a parking space is booked, the database automatically gets updated and the number of available parking spaces changes.

Cloud Storage

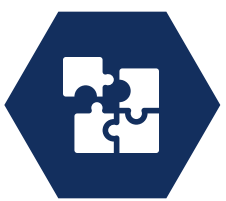
Leveraged cloud technology to enable real-time bookings.

Integrated Technology

Used IoT to allow users to book slots with a Smart Barrier device ID. When a user clicks on the “Barrier Down” tab, a request is sent to the server and the corresponding Smart Barrier is released, blocking the respective parking slot for the user. The Smart Barriers are provided with sensors, which communicate with the server and let the servers know the availability of any parking spot in real time (Up or Down).

Prevent Data Loss

As we know that most of the parkings are underground, there are opportunities for potential Data loss. To avoid data loss and continued communication, we have implemented NFC to fetch for nearby connections to provide flawless service.



Results

The Smart Spot application has turned out to be a huge success in the short period. The application helps users determine the real time availability of parking lots and book them in advance to save precious time and reduce congestion. It also improves parking management.