

Car Parking System

(Possible Commercialization and Future Development)

The **Car Parking System** can serve millions of users everyday and is extremely scalable. The idea itself is easy to implement and it is completely with no human interaction, which cooperates with the upcoming concept of smart cities. The system is eco friendly and user friendly. It also can have huge improvements as we will discuss later.

Commercializing the system can be done through steps. We first will offer the system to places such as clubs and malls. As they exist in closed areas which will make it more convenient to fix and maintain the system. We will work on maintaining the system while expanding to more areas simultaneously. The next step is to offer the system to closed residential areas and compounds. The final step never ends, we keep expanding while improving and adding to the system.

The **future development** of the system can include the following aspects:

- **Expansion and Deployment:** Expanding the system's implementation to various parking locations ensures its widespread availability and usability, benefiting a larger user base.
- **Establishment of Dedicated Traffic Agencies:** Creating dedicated traffic agencies for each local area can enhance management and coordination. These agencies can oversee parking regulations, monitor traffic flow, and implement strategies to optimize parking availability and efficiency.
- **Integration of GPS Technology:** Integrating GPS technology into the mobile application enables seamless car detection and real-time connection to the nearest available parking spaces. This feature enhances convenience and reduces the time spent searching for parking.
- **Enhancement of User Experience:** Improving user experience can be achieved through additional features like SMS notifications. By providing advance information about the unavailability of nearby parking slots before entering the parking area, drivers can save time and avoid unnecessary congestion.

Additionally, to further enhance the parking system and provide an optimal parking experience, the following additions and improvements can be considered:

1. **Automatic Time-Based Parking Calculator:** Implementing an automatic time-based parking calculator within the mobile application can save drivers the hassle of manually calculating their parking duration. By integrating with the system's data, the application can accurately determine the parking time and calculate the corresponding fees.
2. **Automatic Visa Payments:** Incorporating a secure payment gateway into the mobile application enables drivers to make automatic visa payments for parking fees. This feature eliminates the need for physical transactions, streamlining the payment process and saving time for both drivers and parking management.
3. **Electric Car Charging Integration:** In anticipation of the growing popularity of electric vehicles, future iterations of the system can include electric car charging stations. By integrating charging infrastructure, the parking system caters to the needs of electric vehicle owners, providing a comprehensive parking and charging solution.

By incorporating these future developments, the parking system can evolve into a comprehensive solution that not only optimizes parking availability but also enhances user convenience and supports sustainable transportation options.