**README FILE**

The Parking Spot System GUI is designed to manage a parking lot efficiently, enabling users to add, remove, and manage parking slots and cars.

### User Guide

1. **Adding a Parking Slot**

To add a new parking slot, select the "Add Parking Slot" button. A dialog will prompt the user to enter the slot identifier (e.g., "A01" for staff slots or "B01" for visitor slots) and specify whether it is a staff or visitor slot.

1. **Parking a Car**

Select the "Park Car" button to assign a car to an available parking slot. The system will prompt for the slot identifier, car registration number, and owner’s name. It will also ask whether the car belongs to a staff member.

1. **Removing a Car**

To remove a car from its slot, use the "Remove Car from Slot" button. The system will prompt for the car's registration number. Once provided, the car will be removed from the assigned slot, and the system will update the display accordingly.

1. **Finding a Car**

The "Find Car by Registration" button enables the search for a parked car using its registration number. After the registration number is provided, the system will display details such as the slot identifier, parking duration, and current fare.

1. **Deleting Unoccupied Slots**

The "Delete Unoccupied Slots" button allows for the removal of all empty parking slots. Once selected, the system will clear the unoccupied slots and update the display.

1. **Deleting a Specific Slot**

A specific parking slot can be removed using the "Delete Parking Slot" button. The system will prompt for the slot identifier, and if the slot is unoccupied, it will be removed from the system.

1. **Real-Time Updates**

The system features real-time updates for parking durations and fees. The information is refreshed every second to ensure the most accurate data is presented.

1. **Exiting the Application**

The "Exit" button safely closes the application. Upon selection, the system will confirm the action before terminating.

### Additional Features

* **Interactive Slot Management**: Clicking on any parking slot within the interface brings up a dialog offering options to either park a car or remove a car from the selected slot. This feature enhances the ease of managing parking slots directly from the display.
* **Real-Time Display**: The system continuously updates parking durations and fees every second for each occupied slot, ensuring real-time monitoring of parking usage.
* **Tooltips**: Hovering over any parking slot reveals a tooltip displaying detailed information about the slot, such as the car's registration number, the owner’s name, the time the car has been parked, and the current parking fee. This allows for quick access to essential parking details without requiring further interaction.