ReadMe: GUI Parking Spot System

# Introduction:

The GUI Parking Spot System is a user-friendly graphical interface designed to manage used cars at a parking site for a used car selling company. The system replaces the console-based interface of the original project, offering an intuitive and visually appealing experience.

# Features:

- Dynamic Parking Grid: A visual representation of the parking slots. The grid changes based on available slots, with color differentiation to quickly identify occupied and unoccupied slots.  
  
- User-Friendly Controls: Easily accessible buttons and controls for various operations like adding/deleting parking slots, parking a car, finding/removing cars, etc.  
  
- Informative Feedback: The system provides feedback and messages using GUI components ensuring the user is always informed about the actions and their outcomes.

# How to Use:

1. Add a Parking Slot: Click on the 'Add Slot' button and enter the desired slot ID. The slot ID should start with a capital letter followed by a three-digit number (e.g., "D001").  
  
2. Delete a Parking Slot: Click on the 'Delete Slot' button and enter the slot ID. Note: Slots occupied by cars cannot be deleted.  
  
3. View All Slots: Click on the 'Show All Slots' button to view all available slots. Occupied slots will display the car's registration number and make.  
  
4. Park a Car: Click on the 'Park Car' button. Enter the slot ID where you want to park and provide the car's details. The car's registration number should start with a capital letter followed by a four-digit number (e.g., "T1234").  
  
5. Find a Car by Registration Number: Click on the 'Find Car by Reg' button and enter the car's registration number. The system will display the slot where the car is parked.  
  
6. Remove a Car: Click on the 'Remove Car by Reg' button and enter the car's registration number. The car will be removed from its slot.  
  
7. Find Cars by Make: Click on the 'Find Cars by Make' button and enter the car make. The system will list all cars of that make and their details.  
  
8. Exit: Click on the 'Exit' button to close the application. A farewell message "Program end!" will be displayed.

# Design Elements:

- Color Differentiation: The system uses distinct colors for occupied and unoccupied parking slots, making it easy to identify at a glance.  
  
- GUI Components: Input and output operations are handled through GUI components like Text Fields, Text Areas, and Dialog Boxes, ensuring a cohesive user experience.  
  
- Action Listeners: The system efficiently captures and responds to user actions through ActionListeners, ensuring smooth operations.

# Note:

Strict adherence was maintained to not use any GUI development IDE/framework tools for generating the GUI, ensuring a handcrafted and optimized experience.