

SMART PARKING

Creating a complete smart parking system would require a significant amount of code and potentially hardware integration, which is beyond the scope of a simple response. However, I can provide you with a basic Python code example for a simulated smart parking system using a simple text-based interface. This code assumes a single parking spot, but you can extend it for multiple spots and integrate sensors or cameras for a real-world application:

```
```python
```

```
Class SmartParking:
```

```
 Def __init__(self):
```

```
 Self.available_spots = 1 # Initialize with 1 parking spot
```

```
 Self.parked_cars = 0
```

```
 Def park_car(self):
```

```
 If self.available_spots > 0:
```

```
 Print("Car parked successfully.")
```

```
 Self.available_spots -= 1
```

```
 Self.parked_cars += 1
```

```
 Else:
```

```
 Print("No available parking spots.")
```

```
 Def leave_car(self):
```

```
 If self.parked_cars > 0:
```

```
 Print("Car left the parking spot.")
```

```
 Self.available_spots += 1
```

```
 Self.parked_cars -= 1
```

```
 Else:
```

```
 Print("No cars in the parking lot.")
```

```

Def status(self):

 Print(f"Available parking spots: {self.available_spots}")

 Print(f"Occupied parking spots: {self.parked_cars}")

If __name__ == "__main__":

 Parking_lot = SmartParking()

 While True:

 Print("\nSmart Parking System")

 Print("1. Park a car")

 Print("2. Remove a car")

 Print("3. Check parking status")

 Print("4. Quit")

 Choice = input("Enter your choice: ")

 If choice == "1":

 Parking_lot.park_car()

 Elif choice == "2":

 Parking_lot.leave_car()

 Elif choice == "3":

 Parking_lot.status()

 Elif choice == "4":

 Print("Exiting the system.")

 Break

 Else:

 Print("Invalid choice. Please try again.")

 ...

```

This code provides a basic interface for parking and removing cars in a single parking spot. For a real-world smart parking system, you would need to integrate hardware, sensors, and potentially use a database to manage multiple parking spots and store information about parked cars.