

Parking Lot Management System

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GitHub Repository: <https://github.com/EllieEarwood/Parking-Lot-Management-System>

Overview

The Parking Lot Management System is designed to manage parking spots and reservations efficiently within a parking facility. This system allows users to view available parking spots, reserve spots, cancel reservations, and update parking availability.

Features

- View Available Parking Spots
- Reserve a Parking Spot
- Cancel a Reservation
- Update Parking Spot Availability
- Database Integration

System Requirements

- Java Development Kit
- MySQL Database Server
- JDBC Driver for MySQL

System Architecture

The system follows a client-server model where the Java application interacts with a MySQL database through JDBC. Users input commands via a text-based interface, and the system processes requests by querying or updating the database.

Demonstration Link

https://iu.mediaspace.kaltura.com/media/t/1_2rlj28gu

Screenshots

PARKING LOT MANAGEMENT SYSTEM

- 1 - View Parking Spots
- 2 - Add a Reservation
- 3 - Update Parking Spot Availability
- 4 - Delete a Reservation
- 5 - Exit

Choose an option: 1

Connected to MySQL

Connected to MySQL

Fetching Parking Spots...

Parking Spots List:

```
-----
ID: 1 | Spot Number: A1 | Availability: Available
ID: 2 | Spot Number: A2 | Availability: Available
ID: 3 | Spot Number: B1 | Availability: Available
ID: 4 | Spot Number: A3 | Availability: Available
```

PARKING LOT MANAGEMENT SYSTEM

- 1 - View Parking Spots
- 2 - Add a Reservation
- 3 - Update Parking Spot Availability
- 4 - Delete a Reservation
- 5 - Exit

Choose an option: 2

Enter User ID: 1

Enter Parking Spot ID: 3

Connected to MySQL

New reservation added successfully.

Reservation added. Returning to menu...

PARKING LOT MANAGEMENT SYSTEM

- 1 - View Parking Spots
- 2 - Add a Reservation
- 3 - Update Parking Spot Availability
- 4 - Delete a Reservation
- 5 - Exit

Choose an option: 3

Enter the Parking Spot ID to update: 1

Is the spot available? (true/false): true

Connected to MySQL

Parking spot updated successfully.

PARKING LOT MANAGEMENT SYSTEM

- 1 - View Parking Spots
- 2 - Add a Reservation
- 3 - Update Parking Spot Availability
- 4 - Delete a Reservation
- 5 - Exit

Choose an option: 4

Enter Reservation ID to delete: 1

Connected to MySQL

Reservation deleted successfully.