

Software Design & Architecture Project

Screenshots of the Application Running

Group 2:

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1. Interface:

The screenshot shows a macOS-style window titled "Parking Lot Manager - Refactored". The interface is divided into several sections, each highlighted with a red border and red text annotations:

- Header:** A red box around the title bar text "Parking Lot Manager - Refactored" with an arrow pointing to it from the label "Header".
- Lot Creation:** A section containing:
 - Input fields for "Number of Regular Spaces", "Number of EV Spaces", and "Floor Level" (containing the value "1").
 - A "Create Parking Lot" button.
 - A red annotation "Lot creation" pointing to the section.
- Vehicle Management:** A section containing:
 - Input fields for "Make", "Model", "Color", and "Registration #".
 - Checkboxes for "Electric Vehicle" and "Motorcycle".
 - A "Park Vehicle" button.
 - A red annotation "Park a new vehicle" pointing to the section.
- Remove a vehicle:** A section containing:
 - Input fields for "Slot #" and "EV Slot?".
 - A "Remove Vehicle" button.
 - A red annotation "Remove a vehicle" pointing to the section.
- Search by Registration #/Color:** A section containing:
 - Buttons for "Find by Registration #" and "Find by Color", each followed by an input field.
 - A red annotation "Search by Registration #/Color" with an arrow pointing to the "Find by Color" button.
- Show status of all vehicles:** A section containing:
 - A "Show All Vehicles" button.
 - A red box around the button with the annotation "Show status of all vehicles".
- Text Field:** A large empty rectangular area at the bottom with the red annotation "Text Field" centered inside it.

2. Lot creation:

[illegible]

3. Park vehicle:

3.1. General car:

Parking Lot Manager - Refactored

Lot Creation

Number of Regular Spaces

10

Number of EV Spaces

20

Floor Level

1

Create Parking Lot

Vehicle Management

Make

Toyota

Model

Camry

Color

Red

Registration #

ABC123

☐ Electric Vehicle

☐ Motorcycle

Park Vehicle

Slot #

☐ EV Slot?

Remove Vehicle

Find by Registration #

Find by Color

Show All Vehicles

Created parking lot with 10 regular slots and 20 EV slots on level: 1

Parking Lot Manager - Refactored

Parking Lot Manager - Refactored

Lot Creation

Number of Regular Spaces10

Number of EV Spaces20

Floor Level1

Create Parking Lot

Vehicle Management

MakeYamahaModelMotorsColorBlackRegistration #HYG986

☐ Electric Vehicle☒ Motorcycle

Park Vehicle

Slot #

☐ EV Slot?

Remove Vehicle

Find by Registration #

Find by Color

Show All Vehicles

Created parking lot with 10 regular slots and 20 EV slots on level: 1

Parking Lot Manager - Refactored

Lot Creation

Number of Regular Spaces

Number of EV Spaces

Floor Level

Create Parking Lot

Vehicle Management

Make

Model

Color

Registration #

☒ Electric Vehicle

☐ Motorcycle

Park Vehicle

Slot #

☐ EV Slot?

Remove Vehicle

Find by Registration #

Find by Color

Show All Vehicles

Created parking lot with 10 regular slots and 20 EV slots on level: 1

Parking Lot Manager - Refactored

Parking Lot Manager - Refactored

Lot Creation

Number of Regular Spaces

10

Number of EV Spaces

20

Floor Level

1

Create Parking Lot

Vehicle Management

Make

VinFast

Model

EVMotor

Color

White

Registration #

EVMT689

☒ Electric Vehicle

☒ Motorcycle

Park Vehicle

Slot #

☐ EV Slot?

Remove Vehicle

Find by Registration #

Find by Color

Show All Vehicles

Created parking lot with 10 regular slots and 20 EV slots on level: 1

3.5. Result:

</

4. Search:

4.1. Search by registration number:

The screenshot displays the 'Parking Lot Manager - Refactored' application window. It features two main sections: 'Lot Creation' and 'Vehicle Management'. In the 'Lot Creation' section, there are input fields for 'Number of Regular Spaces' (10), 'Number of EV Spaces' (20), and 'Floor Level' (1), along with a 'Create Parking Lot' button. The 'Vehicle Management' section includes fields for 'Make', 'Model', 'Color', and 'Registration #', as well as checkboxes for 'Electric Vehicle' and 'Motorcycle'. There are buttons for 'Park Vehicle', 'Remove Vehicle', 'Find by Registration #', 'Find by Color', and 'Show All Vehicles'. The 'Find by Registration #' button and its corresponding input field (containing 'ABC123') are highlighted with a red rectangle. Below the form, a text area displays the following log messages: 'Created parking lot with 10 regular slots and 20 EV slots on level: 1', 'Vehicle EVMT689 parked in EV slot 1', 'Vehicle EV456 parked in EV slot 2', 'Vehicle HYG986 parked in regular slot 1', 'Vehicle ABC123 parked in regular slot 2', and 'Found: ABC123 in Regular slot 2'. The last line is also highlighted with a red rectangle.

Parking Lot Manager - Refactored

Lot Creation

Number of Regular Spaces: 10 Number of EV Spaces: 20

Floor Level: 1

Create Parking Lot

Vehicle Management

Make: Model: Color: Registration #: ☐ Electric Vehicle ☐ Motorcycle

Park Vehicle

Slot #: ☐ EV Slot?

Remove Vehicle

Find by Registration #: ABC123 Find by Color: Show All Vehicles

Created parking lot with 10 regular slots and 20 EV slots on level: 1
Vehicle EVMT689 parked in EV slot 1
Vehicle EV456 parked in EV slot 2
Vehicle HYG986 parked in regular slot 1
Vehicle ABC123 parked in regular slot 2
Found: ABC123 in Regular slot 2

Parking Lot Manager - Refactored

Lot Creation

Number of Regular Spaces

10

Number of EV Spaces

20

Floor Level

1

Create Parking Lot

Vehicle Management

Make

Model

Color

Registration #

☐ Electric Vehicle

☐ Motorcycle

Park Vehicle

Slot #

☐ EV Slot?

Remove Vehicle

Find by Registration #

Find by Color

Blue

Show All Vehicles

Created parking lot with 10 regular slots and 20 EV slots on level: 1
Vehicle EVMT689 parked in EV slot 1
Vehicle EV456 parked in EV slot 2
Vehicle HYG986 parked in regular slot 1
Vehicle ABC123 parked in regular slot 2
Found: ABC123 in Regular slot 2
Found 1 Blue vehicle(s):
- EV slot 2

4.3. Search all:

Parking Lot Manager - Refactored

Parking Lot Manager - Refactored

Lot Creation

Number of Regular Spaces

10

Number of EV Spaces

20

Floor Level

1

Create Parking Lot

Vehicle Management

Make

Model

Color

Registration #

☐ Electric Vehicle☐ Motorcycle

Park Vehicle

Slot #

☒EV Slot?

Remove Vehicle

Find by Registration #

Find by Color

Show All Vehicles

PARKING LOT STATUS

Regular Vehicles:

Slot	Level	Reg No.	Color	Make	Model
1	1	HYG986	Black	Yamaha	Motors
2	1	ABC123	Red	Toyota	Camry

Electric Vehicles:

Slot	Level	Reg No.	Color	Make	Model	Charge
1	1	EVMT689	White	VinFast	EVMotor	0%
2	1	EV456	Blue	Tesla	Model 3	0%

Parking Lot Manager - Refactored

Parking Lot Manager - Refactored

Lot Creation

Number of Regular Spaces

10

Number of EV Spaces

20

Floor Level

1

Create Parking Lot

Vehicle Management

Make

Model

Color

Registration #

☐ Electric Vehicle

☐ Motorcycle

Park Vehicle

Slot #

☒ EV Slot?

Remove Vehicle

Find by Registration #

Find by Color

Show All Vehicles

Regular Vehicles:

Slot	Level	Reg No.	Color	Make	Model
1	1	HYG986	Black	Yamaha	Motors
2	1	ABC123	Red	Toyota	Camry

Electric Vehicles:

Slot	Level	Reg No.	Color	Make	Model	Charge
1	1	EVMT689	White	VinFast	EVMotor	0%
2	1	EV456	Blue	Tesla	Model 3	0%

Vehicle EVMT689 removed from EV slot 1

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6. **Error handling:**

6.1. *Park vehicle:*

Create Parking Lot

Vehicle Management


MakeToyotaModelCamry

ColorBlueRegistration#

☐ Electric Vehicle☐ Motorcycle

Park Vehicle

Slot#EV Slot?☐



All vehicle parameters must be filled

OK

6.2. *Remove vehicle:*

☐ Electric Vehicle☐ Motorcycle

Park Vehicle

Slot#3EV Slot?☐

Remove Vehicle

Find by Registration#

Find by Color



Unable to remove vehicle from slot 3

OK

6.3. Search:

Parking Lot Manager - Refactored

Lot Creation

Number of Regular Spaces

Number of EV Spaces

Floor Level

Create Parking Lot

Vehicle Management

Make

Model

Color

Registration #

☐ Electric Vehicle

☐ Motorcycle

Park Vehicle

Slot #

☐ EV Slot?

Remove Vehicle

Find by Registration #

Find by Color

Show All Vehicles

=====						
Regular Vehicles:						
Slot	Level	Reg No.	Color	Make	Model	
1	1	HYG986	Black	Yamaha	Motors	
2	1	ABC123	Red	Toyota	Camry	
Electric Vehicles:						
Slot	Level	Reg No.	Color	Make	Model	Charge
2	1	EV456	Blue	Tesla	Model 3	0%

Vehicle ASB34 not found

