CAR PARK SIMULATION

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Using Java create a simulation of a car park. The

program will record vehicles entering and exiting the car

park, as well as the total balance of parking fees paid.

Cars can park in the car park for $2 per hour.

Trucks can park in the car park for $3 per hour.

For example a car parked for 2 hours will pay $4

and a truck parked for 2 hours will pay $6.

The program can also be asked for a balance report that

will show how many vehicles have entered and exited,

the number of spaces available and how much money has

been paid so far.

Trucks take up 2 car spaces.

The requirements for the interface:

1. The user records vehicles entering and exiting the

car park.

2. Upon exiting the car park a time in whole hours

spent in the car park is also entered.

3. The user can request a balance report of the car park

at any time.

4. The program can be exited at any time.

5. The program should validate user input.

Provide a production ready solution including source

files, project structure and any testing you have used.

Example #1

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Program: How many spaces does the car park have?

User: 10

User: ENTER CAR

User: ENTER TRUCK

User: REPORT

Program:

Cars Entered: 1

Trucks Entered: 1

Cars Exited: 0

Trucks Exited: 0

Parking Cars: 1

Parking Trucks: 1

Spaces available: 7

Fees paid: $0

User: QUIT

Example #2

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Program: How many spaces does the car park have?

User: 15

User: ENTER CAR

User: ENTER TRUCK

User: EXIT CAR 2

User: REPORT

Program:

Cars Entered: 1

Trucks Entered: 1

Cars Exited: 1

Trucks Exited: 0

Parking Cars: 0

Parking Trucks: 1

Spaces available: 13

Fees paid: $4

User: QUIT  
  
  
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Test Instructions:

         Applicants are asked to:   
                - solve the problem using java.   
                - solve the problem in their own time. There is no time limit, but we would expect someone with ~5-~10 years experience would be able to complete the test in 2 or 3 business days.

                         - solve the problem as though it were "production level" code.

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