

Question1: A transportation company owns several cars and wants to calculate the driving range for each car based on its fuel tank capacity and fuel efficiency.

Write a Java program that starts by asking the user to enter the number of cars. Then use a loop to get the values of tankCapacity and milesPerGallon for each car.

1. Ask the user to enter the **number of cars**.
2. If the entered number is zero, print the following message: "**You inserted a zero, bye**", then exit the program.
3. Otherwise: Use a **loop** to read the required values for each car from the user.
4. Calculate the **driving range** for each car using the formula:
Driving range = tankCapacity × milesPerGallon
5. Print the driving range for each car.

Notes: Assume that the car travels at a constant speed and that fuel efficiency remains consistent throughout the driving range.

For example, if the input number of cars is 1, we should see an output as follows:

```
Please enter the number of cars: 1
Please enter the capacity of the tank: 15
Please enter the miles per gallon: 25
This means the car can drive 375 miles on a full tank.
```

```
import java.util.Scanner;
public class Sanad {
    public static void main (String [] args) {
        Scanner s1 = new Scanner (System.in);
        System.out.println ("Enter number of cars");
        for (int i = 1; i <= cars; i++)
        int cars = s1.nextInt();
        for (int i = 1; i <= cars; i++) {
            System.out.println ("enter the capacity of tank");
            int capacity = s1.nextInt();
            for (int j = 1; j <= milesPerGallon; j++)
                drivingRange = capacity * milesPerGallon;
        }
        if (cars == 0) { System.out.println ("You inserted a zero bye"); }
        else
```

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```
{ for (int i = 1; i <= cars; i++) {
```

```
System.out.println("enter capacity of the tank")
```

```
int tankCapacity = sc.nextInt();
```

```
for (int j = 1; j <= cars; j++) {
```

```
System.out.println("enter miles per gallon:")
```

```
int milesPerGallon = sc.nextInt();
```

```
3 Driving Range Driving Range = cars
```

```
tankCapacity * milesPerGallon;
```

```
System.out.println("This means the car drive")
```

```
+ Driving Range + "miles on full tank") }
```

```
}
```

```
}
```