

```
import java.util.Scanner;

public class UserInterface {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the Car Details");
        String input = sc.nextLine();

        CarInfo car = extractDetails(input);

        if (car == null) {
            System.out.println("Invalid Details");
            return;
        }

        String availability = car.checkAvailability();

        if (availability.equals("Not Available")) {
            System.out.println("Invalid Details");
        } else {
            System.out.println("Car Id : " + car.getCarId());
            System.out.println("Car Name : " + car.getCarName());
            System.out.println("Car Type : " + car.getCarType());
            System.out.println("City : " + car.getCity());
            System.out.println(availability);
        }
    }

    public static CarInfo extractDetails(String carDetails) {
        String[] parts = carDetails.split(":");
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        if (parts.length != 4) {  
            return null;  
        }  
        return new CarInfo(parts[0], parts[1], parts[2], parts[3]);  
    }  
}
```

```
class CarInfo {  
    private String carId;  
    private String carName;  
    private String carType;  
    private String city;  
  
    public CarInfo(String carId, String carName, String carType, String city) {  
        this.carId = carId;  
        this.carName = carName;  
        this.carType = carType;  
        this.city = city;  
    }  
  
    public String getCarId() {  
        return carId;  
    }  
  
    public String getCarName() {  
        return carName;  
    }  
  
    public String getCarType() {  
        return carType;  
    }  
}
```

```
public String getCity() {  
    return city;  
}
```

```
public String checkAvailability() {  
    String[] validNames = {"Nissan", "Ford"};  
    String[] validCities = {"Newyork", "denver", "losangels"};  
    String[] validTypes = {"Sedan", "SUV", "MUV"};  
  
    boolean validName = false, validCity = false, validType = false;  
  
    for (String name : validNames) {  
        if (carName.equalsIgnoreCase(name)) {  
            validName = true;  
            break;  
        }  
    }  
  
    for (String ct : validTypes) {  
        if (carType.equalsIgnoreCase(ct)) {  
            validType = true;  
            break;  
        }  
    }  
  
    for (String c : validCities) {  
        if (city.equalsIgnoreCase(c)) {  
            validCity = true;  
            break;  
        }  
    }  
}
```

```
if (!invalidName || !invalidType || !invalidCity) {  
    return "Not Available";  
}  
  
String availableCar = "";  
double price = 0.0;  
if (carName.equalsIgnoreCase("Nissan")) {  
    switch (carType.toLowerCase()) {  
        case "sedan":  
            availableCar = "Kicks";  
            price = 8400.0;  
            break;  
        case "suv":  
            availableCar = "Magnite";  
            price = 10800.0;  
            break;  
        case "muv":  
            availableCar = "Terrano";  
            price = 14400.0;  
            break;  
    }  
} else if (carName.equalsIgnoreCase("Ford")) {  
    switch (carType.toLowerCase()) {  
        case "sedan":  
            availableCar = "Figo";  
            price = 4802.0;  
            break;  
        case "suv":  
            availableCar = "Eco Sport";  
            price = 9605.0;  
            break;  
    }  
}
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    case "muv":  
        availableCar = "Endeavour";  
        price = 21600.0;  
        break;  
    }  
}  
  
    return "Available car and price is: " + availableCar + " and $" + price;  
}  
}
```