

exp71.java

```
1 interface Person {
2     void speak();
3 }
4
5 class Student implements Person {
6     @Override
7     public void speak() {
8         System.out.println("I am a Student. I am learning.");
9     }
10 }
11
12 class Teacher implements Person {
13     @Override
14     public void speak() {
15         System.out.println("I am a Teacher. I enjoy sharing knowledge.");
16     }
17 }
18
19 public class exp71 {
20     Run main | Debug main
21     public static void main(String[] args) {
22         Person student = new Student();
23         student.speak();
24
25         Person teacher = new Teacher();
26         teacher.speak();
27     }
28 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

I am a Student. I love learning new things.  
I am a Teacher. I enjoy sharing knowledge.

exp72.java > exp72 > main(String[] args)

```
1  class Doctor {
2      void diagnose() {
3          System.out.println("Doctor is diagnosing the patient.");
4      }
5
6      void prescribeMedicine() {
7          System.out.println("Doctor is prescribing general medicines.");
8      }
9  }
10
11 class Surgeon extends Doctor {
12     @Override
13     void diagnose() {
14         System.out.println("Surgeon is diagnosing a patient for surgery.");
15     }
16
17     void performSurgery() {
18         System.out.println("Surgeon is performing a surgery.");
19     }
20 }
21
22 class Nurse extends Doctor {
23     @Override
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Doctor:

Doctor is diagnosing the patient.

Doctor is prescribing general medicines.

Surgeon:

Surgeon is diagnosing a patient for surgery.

Doctor is prescribing general medicines.

exp73.java > exp73

```
1  class Vehicle {
2      String make, model, fuelType;
3      int year;
4
5      public Vehicle(String make, String model, int year, String fuelType) {
6          this.make = make;
7          this.model = model;
8          this.year = year;
9          this.fuelType = fuelType;
10     }
11
12     public void displayInfo() {
13         System.out.println("Make: " + make + ", Model: " + model + ", Year: " + year + ", Fuel Type: " + fuelType);
14     }
15
16     public double calculateFuelEfficiency() {
17         return 0.0;
18     }
19
20     public double distanceTraveled(double fuel) {
21         return calculateFuelEfficiency() * fuel;
22     }
23 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Make: Ford, Model: F-150, Year: 2021, Fuel Type: Diesel  
Fuel Efficiency: 7.5 km/l  
Distance with 80L: 600.0 km

Make: Honda, Model: Civic, Year: 2022, Fuel Type: Petrol  
Fuel Efficiency: 16.0 km/l  
Distance with 50L: 800.0 km