

Fall 2022 - 3(a)

It's not possible. Because java doesn't support multiple inheritances.....

3(b)

```
public class Car {  
    public void color() {  
        System.out.println("Car color is red");  
    }  
}
```

```
public class BMW extends Car {  
    @Override  
    public void color() {  
        System.out.println("BMW car color is black");  
    }  
}
```

```
public class Main {  
    public static void main(String[] args) {  
        Car car = new Car();  
        car.color(); // prints "Car color is red"  
  
        BMW bmw = new BMW();  
        bmw.color(); // prints "BMW car color is black"  
    }  
}
```

4.(a)-

```
public class Rectangle {  
    private int height;  
    private int width;  
    private int area;  
  
    public int getHeight() {  
        return height;  
    }  
  
    public void setHeight(int height) {  
        this.height = height;  
    }  
}
```

```
}

public int getWidth() {
    return width;
}

public void setWidth(int width) {
    this.width = width;
}

public int getArea() {
    return area;
}

public void setArea(int area) {
    this.area = area;
}
}
```

4.(b)

```
public class Doctor {
    private String name;
    private String id;
    private String hospital;
    private String phone;

    public void setData(String name, String id, String hospital,
String phone) {
        this.name = name;
        this.id = id;
        this.hospital = hospital;
        this.phone = phone;
    }
}
```

```

public String getName() {
    return name;
}

public String getId() {
    return id;
}

public void display() {
    System.out.println("Name: " + name);
    System.out.println("ID: " + id);
    System.out.println("Hospital: " + hospital);
    System.out.println("Phone: " + phone);
}

public static void main(String[] args) {
    Doctor doctor = new Doctor(); // create an object of
    Doctor class
    doctor.setData("John Smith", "D001", "City Hospital",
"12345"); // set data for the doctor object
    doctor.display(); // display the data for the doctor
    object
}
}

```

Another solution of 4(b):

```

public class Doctor {
    private String name;
    private String id;
    private String hospital;
    private String phone;

    public void setData(String name, String id,
String hospital, String phone) {
        this.name = name;
        this.id = id;
        this.hospital = hospital;
    }
}

```

```
        this.phone = phone;
    }

    public String getName() {
        return name;
    }

    public String getId() {
        return id;
    }

    public void display() {
        System.out.println("Hospital: " + hospital);
        System.out.println("Phone: " + phone);
    }

    public static void main(String[] args) {
        Doctor doctor = new Doctor();
        doctor.setData("John Smith", "D001", "City
Hospital", "123456");
        doctor.getName();
        doctor.getId();
        doctor.display();
    }
}
```