

1. CreateAuto and UpdateAuto

Use CreateAuto and UpdateAuto to create and modifies the same automobile. I can use them to change like price, name of optionset, and so on.

```
private static void test_Unit2_changePrice_updateOptName() {
    CreateAuto a1 = new BuildAuto();
    UpdateAuto a2 = new BuildAuto();

    // modify the name of the optionset "Color" to be "ColorOfAuto"
    a2.updateOptionSetName("Focus Wagon ZTW", "Color",
        "ColorOfAuto");

    // modify the price of color "Liquid Grey Clearcoat Metallic"
    // to be 100.45.
    a2.updateOptionPrice("Focus Wagon ZTW", "ColorOfAuto",
        "Liquid Grey Clearcoat Metallic", (float) 100.45);

    // modify the name of the optionset "Brakes/Traction Control"
    to be
    // "Brakes/Traction Control"
    a2.updateOptionSetName("Audi A6", "Brakes/Traction Control",
        "Brakes or Traction Control");

    // modify the price of color "Liquid Grey Clearcoat Metallic"
    // to be 100.45.
    a2.updateOptionPrice("Audi A6", "Brakes or Traction Control",
        "ABS", (float) 450);
}
```

Test result:

```
-----
Read 2 files:testFile1 and testFile2:
-----
-----
Print the first model:
-----
Model name:Focus Wagon ZTW
```

Base Price:18445.000000

Option number:5

OptionSet name: Color

Option number: 10

=====

Fort Knox Gold Clearcoat Metallic:0.000000

Liquid Grey Clearcoat Metallic:0.000000

Infra-Red Clearcoat:0.000000

Grabber Green Clearcoat Metallic:0.000000

Sangria Red Clearcoat Metallic:0.000000

French Blue Clearcoat Metallic:0.000000

Twilight Blue Clearcoat Metallic:0.000000

CD Silver Clearcoat Metallic:0.000000

Pitch Black Clearcoat:0.000000

Cloud 9 White Clearcoat:0.000000

OptionSet name: Transmission

Option number: 2

=====

automatic:0.000000

manual:-815.000000

OptionSet name: Brakes/Traction Control

Option number: 3

=====

Standard:0.000000

ABS:400.000000

ABS with Advance Trac:1625.000000

OptionSet name: Side Impact Air Bags

Option number: 2

=====

present:350.000000

not present:0.000000

OptionSet name: Power Moonroof

Option number: 2

=====

present:595.000000

not present:0.000000

Print the second model:

Model name:Audi A6
Base Price:38445.000000
Option number:5
OptionSet name: Color
Option number: 11

=====

Fort Knox Gold Clearcoat Metallic:	0.000000
Liquid Grey Clearcoat Metallic:	0.000000
Infra-Red Clearcoat:	0.000000
Grabber Green Clearcoat Metallic:	0.000000
Sangria Red Clearcoat Metallic:	0.000000
French Blue Clearcoat Metallic:	0.000000
Twilight Blue Clearcoat Metallic:	0.000000
CD Silver Clearcoat Metallic:	0.000000
Pitch Black Clearcoat:	0.000000
Cloud 9 White Clearcoat:	0.000000
Red:	0.000000

OptionSet name: Transmission
Option number: 2

=====

automatic:	0.000000
manual:	-815.000000

OptionSet name: Brakes/Traction Control
Option number: 3

=====

Standard:	0.000000
ABS:	400.000000
ABS with Advance Trac:	1625.000000

OptionSet name: Side Impact Air Bags
Option number: 2

=====

present:	350.000000
not present:	0.000000

OptionSet name: Power Moonroof

Option number: 2

=====

present:595.000000

not present:0.000000

After modify:

Print the first model:

Model name:Focus Wagon ZTW

Base Price:18445.000000

Option number:5

OptionSet name: ColorOfAuto

Option number: 10

=====

Fort Knox Gold Clearcoat Metallic:0.000000

Liquid Grey Clearcoat Metallic:100.449997

Infra-Red Clearcoat:0.000000

Grabber Green Clearcoat Metallic:0.000000

Sangria Red Clearcoat Metallic:0.000000

French Blue Clearcoat Metallic:0.000000

Twilight Blue Clearcoat Metallic:0.000000

CD Silver Clearcoat Metallic:0.000000

Pitch Black Clearcoat:0.000000

Cloud 9 White Clearcoat:0.000000

OptionSet name: Transmission

Option number: 2

=====

automatic:0.000000

manual:-815.000000

OptionSet name: Brakes/Traction Control

Option number: 3

=====

Standard:0.000000

ABS:400.000000

ABS with Advance Trac:1625.000000

OptionSet name: Side Impact Air Bags

Option number: 2

=====

present:350.000000

not present:0.000000

OptionSet name: Power Moonroof

Option number: 2

=====

present:595.000000

not present:0.000000

Print the second model:

Model name:Audi A6

Base Price:38445.000000

Option number:5

OptionSet name: Color

Option number: 11

=====

Fort Knox Gold Clearcoat Metallic:0.000000

Liquid Grey Clearcoat Metallic:0.000000

Infra-Red Clearcoat:0.000000

Grabber Green Clearcoat Metallic:0.000000

Sangria Red Clearcoat Metallic:0.000000

French Blue Clearcoat Metallic:0.000000

Twilight Blue Clearcoat Metallic:0.000000

CD Silver Clearcoat Metallic:0.000000

Pitch Black Clearcoat:0.000000

Cloud 9 White Clearcoat:0.000000

Red:0.000000

OptionSet name: Transmission

Option number: 2

=====

automatic:0.000000

manual:-815.000000

OptionSet name: Brakes or Traction Control

Option number: 3

```

=====
Standard:0.000000
ABS:450.000000
ABS with Advance Trac:1625.000000

OptionSet name: Side Impact Air Bags
Option number: 2
=====
present:350.000000
not present:0.000000

OptionSet name: Power Moonroof
Option number: 2
=====
present:595.000000
not present:0.000000

```

2. Use errno to provide different fixing solutions

The different exceptions are identifiable by errno and use this errno to provide different fixing solutions.

FILE NAME: UserExceptions.java

```

public String fixProblemReadFromConsole()
{
    if (errorNumber == 0) {
        // input the new file name from the console
        String filename;

        Scanner sc = new Scanner(System.in);
        System.out.println("Please input the right file name:");
        filename = sc.nextLine();
        System.out.println("Got here -->
fixProblemReadFromConsole");
        //sc.close();
        return filename;
    } else {
        return null;
    }
}

```

}

}