

Project1_Unit2

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Overall understanding of unit3:

As for this unit3, I strictly follow the requirements and give adequate test. And I use the Goofy.java as the template to test my multithread programs. As for each synchronized operations, I use two threads to update the data at the same time, and each thread would wait random time. We have six packages for this part:

Adaptor :

BuildAuto: a class implements all functions of proxyAutomobile, CreateAuto, UpdateAuto, mainly used for hiding all these function from users.

CreateAuto: an interface, used to build auto object and print auto object

FixAuto: an interface, used to fix the exceptions

proxyAutomobile: encapsulate all “CRUD” operations for automobile

UpdateAuto: an interface, used to update the OptionSet and Option

EditThreads: an interface, used to bridge the EditOptions and BuildAuto class

Exception:

AutoException: implements FixAuto used to fix exceptions:

ExceptionNum: to enumerate all exceptions

Helpers: include different fix methods for different exceptions

log: used to record the timestamp of exception and the err message of exception

Model:

Automobile: encapsulate all necessary operations and attributes for car

OptionSet: encapsulate all optionset and options’ operation and attributes

AutoList: encapsulate automobile operations and attributes

Util:

FileIO: used to build auto object and serialization and deserialization

Scale:

EditOptions: implement multithreads operations

OptinNum: to enumerate all edit options

*****test the edit option price*****

the current Thread:t1 the price of the option Automatic changed to 2000.0

Focus Wagon ZTW

Base Price :18455.0

Color:

Fort Knox Gold Clearcoat Metallic:Price 0.0

Liquid Grey Clearcoat Metallic:Price 0.0

Infra-Red Clearcoat:Price 0.0

Grabber Green Clearcoat Metallic:Price 0.0

Sangria Red Clearcoat Metallic:Price 0.0

French Blue Clearcoat Metallic:Price 0.0

Twilight Blue Clearcoat Metallic:Price 0.0

CD Silver Clearcoat Metallic:Price 0.0

Pitch Black Clearcoat:Price 0.0

Cloud 9 White Clearcoat:Price 0.0

Transmission:

Automatic:Price 2000.0

Standard:Price -815.0

Brakes/Traction Control:

Standard:Price 0.0

ABS:Price 400.0

ABS with Advance Trac:Price 1625.0

Side Impact Airbags:

None:Price 0.0

Selected:Price 350.0

Power Moonroof:

None:Price 0.0

Selected:Price 595.0

*****test the edit option price*****

the current Thread:t2 the price of the option Automatic changed to 4000.0

Focus Wagon ZTW

Base Price :18455.0

Color:

Fort Knox Gold Clearcoat Metallic:Price 0.0

Liquid Grey Clearcoat Metallic:Price 0.0

Infra-Red Clearcoat:Price 0.0

Grabber Green Clearcoat Metallic:Price 0.0

Sangria Red Clearcoat Metallic:Price 0.0

French Blue Clearcoat Metallic:Price 0.0

Twilight Blue Clearcoat Metallic:Price 0.0

CD Silver Clearcoat Metallic:Price 0.0

Pitch Black Clearcoat:Price 0.0

Cloud 9 White Clearcoat:Price 0.0

Transmission:

Automatic:Price 4000.0

Standard:Price -815.0

Brakes/Traction Control:

Standard:Price 0.0

ABS:Price 400.0

ABS with Advance Trac:Price 1625.0

Side Impact Airbags:

None:Price 0.0

Selected:Price 350.0

Power Moonroof:

None:Price 0.0

Selected:Price 595.0

*****test the edit optionset name*****

the current Thread:t3 the opsetName changed from Color to ColorSet

Focus Wagon ZTW

Base Price :18455.0

ColorSet:

Fort Knox Gold Clearcoat Metallic:Price 0.0

Liquid Grey Clearcoat Metallic:Price 0.0

Infra-Red Clearcoat:Price 0.0

Grabber Green Clearcoat Metallic:Price 0.0

Sangria Red Clearcoat Metallic:Price 0.0

French Blue Clearcoat Metallic:Price 0.0

Twilight Blue Clearcoat Metallic:Price 0.0

CD Silver Clearcoat Metallic:Price 0.0

Pitch Black Clearcoat:Price 0.0

Cloud 9 White Clearcoat:Price 0.0

Transmission:

Automatic:Price 4000.0

Standard:Price -815.0

Brakes/Traction Control:

Standard:Price 0.0

ABS:Price 400.0

ABS with Advance Trac:Price 1625.0

Side Impact Airbags:

None:Price 0.0

Selected:Price 350.0

Power Moonroof:

None:Price 0.0

Selected:Price 595.0

*****test the edit option price*****

the current Thread:t4 the opsetName changed from Transmission to Auto2

Focus Wagon ZTW

Base Price :18455.0

Color:

Fort Knox Gold Clearcoat Metallic:Price 0.0

Liquid Grey Clearcoat Metallic:Price 0.0

Infra-Red Clearcoat:Price 0.0

Grabber Green Clearcoat Metallic:Price 0.0

Sangria Red Clearcoat Metallic:Price 0.0

French Blue Clearcoat Metallic:Price 0.0

Twilight Blue Clearcoat Metallic:Price 0.0

CD Silver Clearcoat Metallic:Price 0.0

Pitch Black Clearcoat:Price 0.0

Cloud 9 White Clearcoat:Price 0.0

Auto2:

Automatic:Price 2000.0

Standard:Price -815.0

Brakes/Traction Control:

Standard:Price 0.0

ABS:Price 400.0

ABS with Advance Trac:Price 1625.0

Side Impact Airbags:

None:Price 0.0

Selected:Price 350.0

Power Moonroof:

None:Price 0.0

Selected:Price 595.0

*****test the edit option name*****

the current Thread:t5 the optionname changed from Fort Knox Gold Clearcoat Metallic to Green

Focus Wagon ZTW

Base Price :18455.0

ColorSet:

Green:Price 0.0

Liquid Grey Clearcoat Metallic:Price 0.0

Infra-Red Clearcoat:Price 0.0

Grabber Green Clearcoat Metallic:Price 0.0

Sangria Red Clearcoat Metallic:Price 0.0

French Blue Clearcoat Metallic:Price 0.0

Twilight Blue Clearcoat Metallic:Price 0.0

CD Silver Clearcoat Metallic:Price 0.0

Pitch Black Clearcoat:Price 0.0

Cloud 9 White Clearcoat:Price 0.0

Auto2:

Automatic:Price 4000.0

Standard:Price -815.0

Brakes/Traction Control:

Standard:Price 0.0

ABS:Price 400.0

ABS with Advance Trac:Price 1625.0

Side Impact Airbags:

None:Price 0.0

Selected:Price 350.0

Power Moonroof:

None:Price 0.0

Selected:Price 595.0

*****test the edit option name*****

the current Thread:t6 the optionname changed from Automatic to newAutomatic

Focus Wagon ZTW

Base Price :18455.0

ColorSet:

Fort Knox Gold Clearcoat Metallic:Price 0.0

Liquid Grey Clearcoat Metallic:Price 0.0

Infra-Red Clearcoat:Price 0.0

Grabber Green Clearcoat Metallic:Price 0.0

Sangria Red Clearcoat Metallic:Price 0.0

French Blue Clearcoat Metallic:Price 0.0

Twilight Blue Clearcoat Metallic:Price 0.0

CD Silver Clearcoat Metallic:Price 0.0

Pitch Black Clearcoat:Price 0.0

Cloud 9 White Clearcoat:Price 0.0

Auto2:

newAutomatic:Price 4000.0

Standard:Price -815.0

Brakes/Traction Control:

Standard:Price 0.0

ABS:Price 400.0

ABS with Advance Trac:Price 1625.0

Side Impact Airbags:

None:Price 0.0

Selected:Price 350.0

Power Moonroof:

None:Price 0.0

Selected:Price 595.0