TrackingSimulator

- shipments: List<Shipment>

+ findShipment(id: String): Shipment?
+ addShipment(shipment: Shipment)
+ runSimulation()

Created

+ apply()

Delayed

+ apply(targetShipment: Shipment)

Shipped

+ apply(targetShipment: Shipment)

Lost

+ apply(targetShipment: Shipment)

Location

+ apply(targetShipment: Shipment)

Canceled

+ apply(targetShipment: Shipment)

Delivered

+ apply(targetShipment: Shipment)

NoteAdded

+ apply(targetShipment: Shipment)

<<interface>>
Update

+ apply()

UserInterface

Creates and uses these

ShipmentObserver

+ shipmentId: String
+ shipmentNotes: List<String>
+ shipmentUpdateHistory: List<String>
+ expectedShipmentDeliveryDate: Long
+ ShipmentStatus: String

* all attributes have a private setter in this class

+ trackShipment(id: String)
+ stopTracking()
+ update(shipmentNotes: List<String>, shipmentUpdateHistory: List<String>, expectedShipmentDeliveryDate: Long, ShipmentStatus: String)

<<interface>>
Observer

+ update()

<<interface>>
Subject

+ registerObserver()
+ removeObserver()
+ notifyObservers()

Subject

Shipment

- observers: List<Observer>
+ id: String
+ status: Status
  notes: List<String>
+ updateHistory: List<ShippingUpdate> private set
+ expectedDeliveryDateTimestamp: Long
+ currentLocation: String

+ addUpdate(update: ShippingUpdate)
+ registerObserver(interested: Observer)
+ removeObserver(disinterested: Observer)
+ notifyObservers()

ShippingUpdate

+ previousStatus: Status
+ newStatus: Status
+ timestamp: Long

Created

+ get(): String

Delayed

+ get(): String

Delivered

+ get(): String

Lost

+ get(): String

Shipped

+ get(): String

Canceled

+ get(): String

<<interface>>
Status

+ get()