

Idea

Trolleys need some upgrade.

Details:

- Thing... boolean equals(Object o)
 - returns true, if object is of equal class and name
 - overrides equals() of class *Object*
- Trolley... boolean isInTrolley(Thing thing)
 - returns true, if a thing with equal class and name is in trolley
 - see also equals() of class *Thing*
- Trolley... void removeThing(Thing thing)
 - removes thing if it is in trolley and
 - closes the gap (if any)
 - if thing not found sets error-attribute to “not found ...” (see protocol)
- Trolley... String calculateGain()
 - a customer can win a prize under certain conditions:
 - if today’s weekday equals at least the weekday of one bestbefore and
 - not more than one heavy thing is in the trolley
 - outcome either:
 - YOU WON! today is THURSDAY, supermarket.LightThing: ... and ... heavy things
 - or
 - today is THURSDAY, nothing appropriate in trolley (see protocol)

Hints

- LocalDate...for handling date-objects

```
static LocalDate now()  
Obtains the current date from the system clock in the default time-zone.
```

Enum DayOfWeek

FRIDAY, MONDAY, ...

```
DayOfWeek getDayOfWeek()  
Gets the day-of-week field, which is an enum DayOfWeek.
```

test-protocol:

```
-----test is in trolly-----
true=>true
true=>true
true=>true
false=>false
false=>false

-----end test is in trolly-----

-----test remove from trolly-----
----- remove Leberwurst
class supermarket.Trolly is SMALL with 3 different light things 0 different heavy things
- supermarket.LightThing: Metwurst, 4, 11 EUR/unit, Sunday, 02 Dec 2012
- supermarket.LightThing: Kaeswurst, 5, 12 EUR/unit, Tuesday, 25 Oct 2016
- supermarket.LightThing: Salamiwurst, 2, 13 EUR/unit, Thursday, 06 Dec 2012
----- remove not existing Kaeswurst
***** error with remove: not found supermarket.LightThing: Kaeswurst, 0, 0 EUR/unit, Thursday, 01 Jan 2099
class supermarket.Trolly is SMALL with 3 different light things 0 different heavy things
- supermarket.LightThing: Metwurst, 4, 11 EUR/unit, Sunday, 02 Dec 2012
- supermarket.LightThing: Kaeswurst, 5, 12 EUR/unit, Tuesday, 25 Oct 2016
- supermarket.LightThing: Salamiwurst, 2, 13 EUR/unit, Thursday, 06 Dec 2012
----- remove Kaeswurst
class supermarket.Trolly is SMALL with 2 different light things 0 different heavy things
- supermarket.LightThing: Metwurst, 4, 11 EUR/unit, Sunday, 02 Dec 2012
- supermarket.LightThing: Salamiwurst, 2, 13 EUR/unit, Thursday, 06 Dec 2012
----- remove Salamiwurst
class supermarket.Trolly is SMALL with 1 different light things 0 different heavy things
- supermarket.LightThing: Metwurst, 4, 11 EUR/unit, Sunday, 02 Dec 2012
----- remove Metwurst
class supermarket.Trolly is SMALL with 0 different light things 0 different heavy things
----- remove again Metwurst
***** error with remove: not found supermarket.LightThing: Metwurst, 0, 0 EUR/unit, Thursday, 01 Jan 2099
class supermarket.Trolly is SMALL with 0 different light things 0 different heavy things
-----end test remove from trolly-----

-----test gain-----
class supermarket.Trolly is SMALL with 4 different light things 0 different heavy things
- supermarket.LightThing: Leberwurst, 3, 10 EUR/unit, Saturday, 01 Dec 2012
- supermarket.LightThing: Metwurst, 4, 11 EUR/unit, Sunday, 02 Dec 2012
- supermarket.LightThing: Kaeswurst, 5, 12 EUR/unit, Tuesday, 25 Oct 2016
- supermarket.LightThing: Salamiwurst, 2, 13 EUR/unit, Thursday, 06 Dec 2012
YOU WON! today is THURSDAY, supermarket.LightThing: Salamiwurst, 2, 13 EUR/unit, Thursday, 06 Dec 2012 and 0
heavy things
class supermarket.Trolly is MEDIUM with 2 different light things 1 different heavy things
- supermarket.LightThing: Leberwurst, 13, 10 EUR/unit, Saturday, 01 Dec 2012
- supermarket.HeavyThing: Bierkiste, 2, 20 EUR/unit, 12
- supermarket.LightThing: Semmel, 13, 10 EUR/unit, Friday, 30 Nov 2012
today is THURSDAY, nothing appropriate in trolly
class supermarket.Trolly is BIG with 2 different light things 2 different heavy things
- supermarket.LightThing: Leberwurst, 13, 10 EUR/unit, Tuesday, 25 Oct 2016
- supermarket.HeavyThing: Bierkiste, 2, 20 EUR/unit, 12
- supermarket.LightThing: Semmel, 13, 10 EUR/unit, Thursday, 27 Oct 2016
- supermarket.HeavyThing: Erdaepfelkiste, 2, 20 EUR/unit, 12
today is THURSDAY, nothing appropriate in trolly
-----end test gain-----
```