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Class: **EPL 434**

Exercise Gorgias - Refund policy

Decision theory

Normally, reject refund requests to save money. If the buyer caused the damage, also reject the request. Do not accept items that are out of warranty period or do not have live long warranty. If it's technical issue, try to repair the item, but only if it won't cost more than buying a new one. In that case exchange for a new item. If the item is no longer available and customer should be compensated, return money.

Scenarios

<**1**, { not warranty(it) }, **reject(it)** >
<**2**, { caused(it) }, **reject(it)** >
<**3**, { not caused(it), warranty(it), repairable(it), repair_cheap(it) }, **repair(it)** >
<**4**, { not caused(it), warranty(it), not repairable(it) }, **refund(it)** >
<**5**, { not caused(it), warranty(it), not repairable(it), selling(it) }, **new(it)** >
<**6**, { not caused(it), warranty(it), repairable(it), not repair_cheap(it) }, **refund(it)** >
<**7**, { not caused(it), warranty(it), not repair_cheap(it) }, **refund(it)** >
<**8**, { not caused(it), warranty(it), not repairable(it), not selling(it) }, **refund(it)** >
<**9**, { not caused(it), warranty(it), repairable(it), repair_cheap(it), selling(it) }, **repair(it)** >
<**10**, { not caused(it), warranty(it), not repair_cheap(it), selling(it) }, **new(it)** >

Predicates

Option Predicates

1) reject(Request)
2) repair(Request)
3) refund(Request)
4) new(Request)

Defeasible Predicates

1) caused(Request)
2) repairable(Request)
3) repair_cheap(Request)
4) entitled(Request)

Non-defeasible Predicates

1) warranty(Request)
2) selling(Request)

Sensors

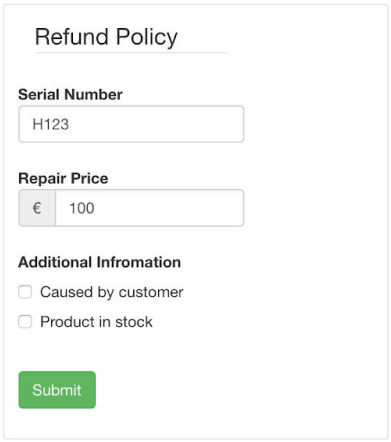
1) repair_price(Request, D) - User input
2) caused(Request) - User input
3) selling(Request) - User input
4) exist(Request) - Database record
5) price(Request, D) - Database record
6) lifelong_warranty(Request) - Database record
7) bought_days_ago(Request, D) - Database record + current date

Database content

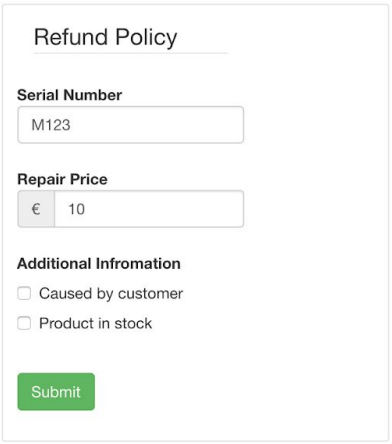
Serial number	Price	Date	Lifelong Warranty
K123	134.9	2018-11-23	no
H123	171.9	1995-11-11	no
M123	108.9	1995-11-11	yes
P123	426.9	2018-11-11	no

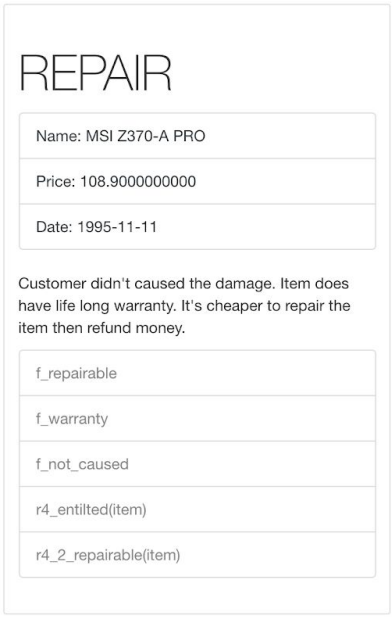
Scenarios

SCENARIO #1

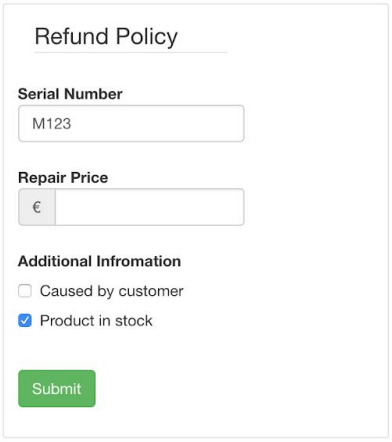


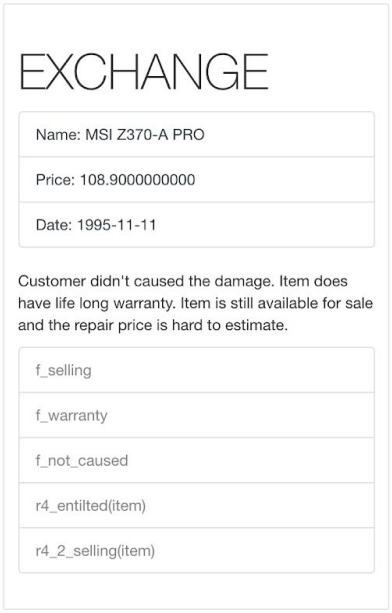
SCENARIO #3





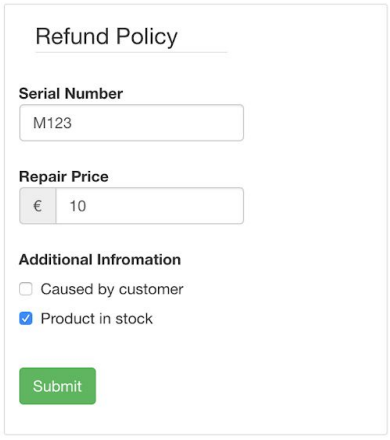
SCENARIO #5

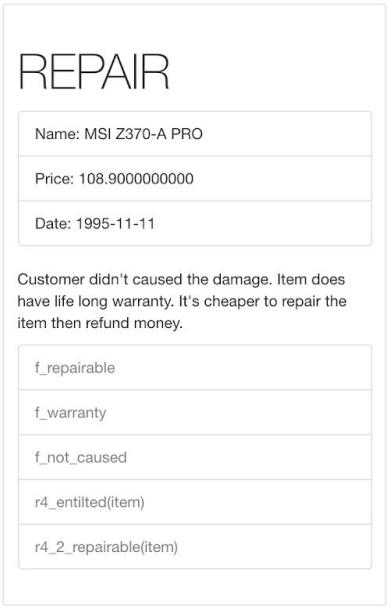





```
assertz(considered(item)).
assertz(exists(item)).
assertz(selling(item)).
assertz(price(item, 108.9000000000)).
assertz(bought_days_ago(item, 8429)).
assertz(lifelong_warranty(item)).
prove([repair(item)], Delta).
prove([exchange(item)], Delta).
```

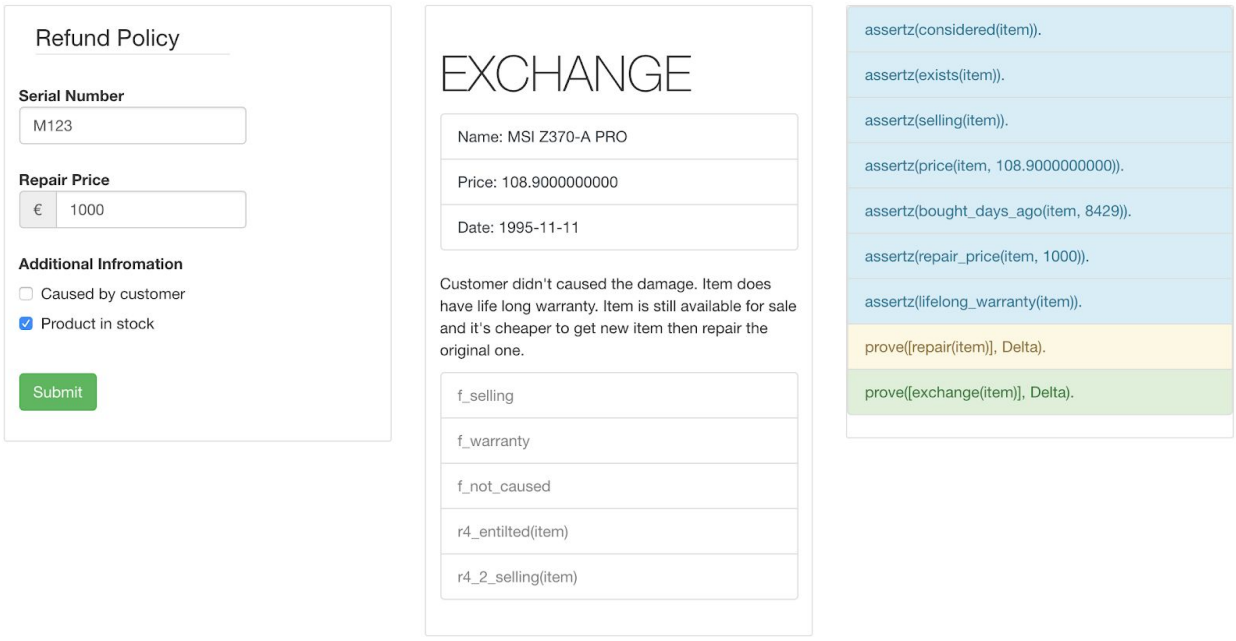
SCENARIO #9






```
assertz(considered(item)).
assertz(exists(item)).
assertz(selling(item)).
assertz(price(item, 108.9000000000)).
assertz(bought_days_ago(item, 8429)).
assertz(repair_price(item, 10)).
assertz(lifelong_warranty(item)).
prove([repair(item)], Delta).
```

SCENARIO #10


Refund Policy
Serial Number
M123
Repair Price
€
1000
Additional Infromation
Caused by customer
Product in stock
Submit
EXCHANGE
Name: MSI Z370-A PRO
Price: 108.9000000000
Date: 1995-11-11
Customer didn't caused the damage. Item does have life long warranty. Item is still available for sale and it's cheaper to get new item then repair the original one.
f_selling
f_warranty
f_not_caused
r4_entilted(item)
r4_2_selling(item)
assertz(considered(item)).
assertz(exists(item)).
assertz(selling(item)).
assertz(price(item, 108.9000000000)).
assertz(bought_days_ago(item, 8429)).
assertz(repair_price(item, 1000)).
assertz(lifelong_warranty(item)).
prove([repair(item)], Delta).
prove([exchange(item)], Delta).