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SER316 Assignment 2- Junit

Spring B 2020

#### Task 1:

#### **Equivalence Partitions:**

- 1) Age:
  - a. 0-20 are underage (15)
  - b. >=21 are of-age (23)
  - c. < 0 is not a valid input (-2)
- 2) Produce:
  - a. 1-2 to test the base price. (1)
  - b. 3-[cart-capacity] to test for the discount. (6, 5)
- 3) Alcohol + frozen food:
  - a. Quantity for alcohol must be 0 while frozen food >0. (0, 2)
  - b. Quantity for frozen food must be 0 while alcohol >0. (2, 0)
  - c. Quantity for both for checking the AND must be >0. (1, 3)

## Boundary analysis:

- Check age = 21
- Check empty cart
- Fill the cart with too many items (20 of each?)

Cart 4 is the only cart that passes all the test cases.

Carts 2 and 5 do not properly check the age of the person. I think cart 2 has a flipped less-than sign when checking the age. [test 2 + 1]

Cart 0 does not calculate the tax. [all tests except test 7]

Cart 1 does not calculate the produce discount when buying 3 or more. [test 4]

Cart 3 does not calculate the frozen food and alcohol discount properly. [test 8]

Cart 0 throws the underage exception for a person who is 21 years old. [test 8]

Cart 2 has the wrong discount for produce. [test 4]

All but cart 4 has issues with too many items in the cart. [test 10]

# Message: "ALWAYS CODE AS IF THE PERSON WHO ENDS UP MAINTAINING YOUR CODE WILL BE A VIOLENT PSYCHOPATH WHO KNOWS WHERE YOU LIVE" – MARTIN GOLDING

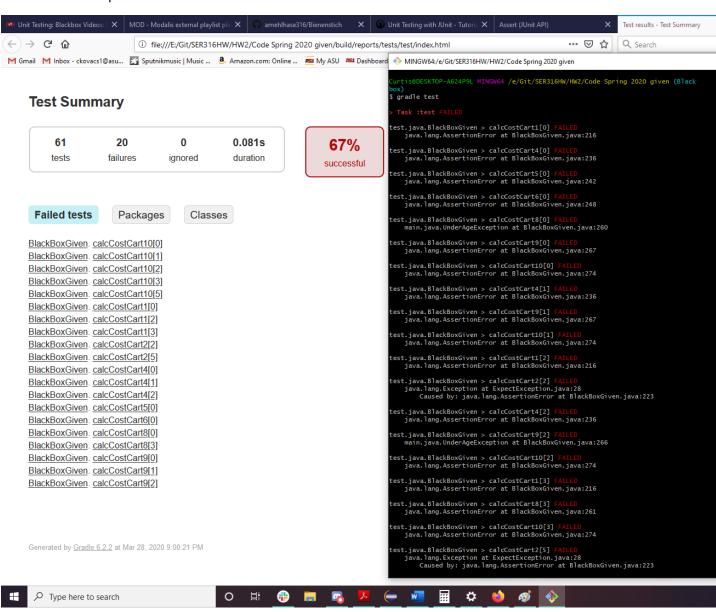
Test case 4 found part 1.

Test case 8 found part 2.

Test case 1 found part 3.

Test case 10 found part 4.

Test case 2 found part 5.



Task 2:

## Code Spring 2020 given

Element +	Missed Instructions \$	Cov. \$	Missed Branches		Missed =	Cxty	Missed÷	Lines	Missed	Methods *	Missed÷	Classes
main.java		25%		3%	20	36	64	96	5	21	1	9
Total	246 of 328	25%	26 of 27	3%	20	36	64	96	5	21	1	9

