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**TEST CASE EXECUTION FOR PRODUCT SYSTEM (Assessment 2)**

**UNIT TESTING (Product)**

**TCase\_1:** Tests the **toString()** method to ensure that the output is formatted correctly

++++++++++++++++ Test Case 1: toString() Format Test ++++++++++++++++

Expected: Code: E0001 | Make: Zap Electronics | Model: Cool Chicken Mincer | Price: £99.99 | Department: Electrical | Quantity: 1

Outcome: Code: E0001 | Make: Zap Electronics | Model: Cool Chicken Mincer | Price: £99.99 | Department: Electrical | Quantity: 1

+++++++++++++++++++++++++ End of Test Case 1 ++++++++++++++++++++++++

**TCase\_2:** Tests whether the boolean method **recordPurchase()** records the purchases & returns true if input is valid

++++++++++++++ Test Case 2: recordPurchase() TRUE Check +++++++++++++

Code: E0002 | Make: Zap Electronics | Model: Cool Chicken Mincer | Price: £99.99 | Department: Electrical | Quantity: 1

Recording purchases...

Expected: true

Outcome: true

+++++++++++++++++++++++++ End of Test Case 2 ++++++++++++++++++++++++

**TCase\_3:** Tests whether the boolean method **recordPurchase()** doesn't record purchases & returns false if input is invalid

++++++++++++ Test Case 3: recordPurchase() FALSE Check ++++++++++++

Code: E0003 | Make: Zap Electronics | Model: Cool Chicken Mincer | Price: £99.99 | Department: Electrical | Quantity: 1

Recording purchases...

Expected: false

Outcome: false

++++++++++++++++++++++++ End of Test Case 3 +++++++++++++++++++++++

**TCase\_4:** Tests the **addToQuantity()** method to ensure that the quantity is increased if the input is valid

++++++++++++ Test Case 4: addToQuantity() - VALID INPUT ++++++++++++

Code: E0004 | Make: Zap Electronics | Model: Cool Chicken Mincer | Price: £99.99 | Department: Electrical | Quantity: 1

Adding Quantity by: 3

Expected: 4

Output: 4

+++++++++++++++++++++++++ End of Test Case 4 +++++++++++++++++++++++

**TCase\_5:** Tests the **addToQuantity()** method to ensure that the quantity doesn't change if the input is invalid

++++++++++++ Test Case 5: addToQuantity() - INVALID INPUT ++++++++++++

Code: E0005 | Make: Zap Electronics | Model: Cool Chicken Mincer | Price: £99.99 | Department: Electrical | Quantity: 2

Adding Quantity by: -3

Expected: 2

Output: 2

+++++++++++++++++++++++++ End of Test Case 5 +++++++++++++++++++++++++

**INTEGRATION TESTING (Company)**

**TCase\_6:** Tests the addProduct() method to ensure that a new product is added if all the requirements are met

++++++++++++ Test Case 6: addProduct() - ADDITION SUCCESS ++++++++++++

List of Products before Addition:

Adding new product...

Expected Test Status: OK

Actual Test Status: OK

List of Products after Addition:

Code: E0001 | Make: Zap Electronics | Model: Cool Chicken Mincer | Price: £99.99 | Department: Electrical | Quantity: 1

+++++++++++++++++++++++++ End of Test Case 6 ++++++++++++++++++++++++

**TCase\_7:** Tests the addProduct() method to ensure that a new product is not added if the requirements are not met

++++++++++++ Test Case 7: addProduct() - ADDITION FAILED ++++++++++++

List of Products before Addition:

Code: B0002 | Make: Make1 | Model: Model1 | Price: £10.00 | Department: Books | Quantity: 4

Adding product with same make & model...

Expected Test Status: ADDITION FAILED - Product should not have the same make & model.

Actual Test Status: ADDITION FAILED - Product should not have the same make & model.

List of Products after Addition:

Code: B0002 | Make: Make1 | Model: Model1 | Price: £10.00 | Department: Books | Quantity: 4

+++++++++++++++++++++++++ End of Test Case 7 ++++++++++++++++++++++++

**TCase\_8:** Tests the boolean method deleteProduct() to ensure that a product in the product list is deleted & returns true

++++++++++++ Test Case 8: deleteProduct() TRUE CHECK ++++++++++++

List of Products before Addition:

Code: B0003 | Make: Make1 | Model: Model1 | Price: £10.00 | Department: Books | Quantity: 1

Deleting product

Expected Test Status: true

Actual Test Status: true

List of Products after Addition:

+++++++++++++++++++++++++ End of Test Case 8 ++++++++++++++++++++++++

**TCase\_9:** Tests the boolean method deleteProduct() to ensure that a product in the product list is not deleted & returns false

++++++++++++ Test Case 9: deleteProduct() FALSE CHECK ++++++++++++

List of Products before Addition:

Code: B0004 | Make: Make1 | Model: Model1 | Price: £10.00 | Department: Books | Quantity: 1

Deleting product

Expected Test Status: false

Actual Test Status: false

List of Products after Addition:

Code: B0004 | Make: Make1 | Model: Model1 | Price: £10.00 | Department: Books | Quantity: 1

+++++++++++++++++++++++++ End of Test Case 9 ++++++++++++++++++++++++

**TCase\_10:** Tests the restock() method to ensure that the product is restocked & returns true

++++++++++++ Test Case 10: restock() TRUE CHECK ++++++++++++

Product details before Restock:

Code: C0005 | Make: Make2 | Model: Model2 | Price: £9.00 | Department: Computing | Quantity: 2

Restocking product by: 3

Expected Test Status: true

Actual Test Status: true

Product details after Restock:

Code: C0005 | Make: Make2 | Model: Model2 | Price: £9.00 | Department: Computing | Quantity: 5

+++++++++++++++++++++++++ End of Test Case 10 ++++++++++++++++++++++++

**TCase\_11:** Tests the restock() method to ensure that the product is not restocked & returns false

++++++++++++ Test Case 11: restock() FALSE CHECK ++++++++++++

Product details before Restock:

Code: C0006 | Make: Make2 | Model: Model2 | Price: £9.00 | Department: Computing | Quantity: 2

Restocking product by: -3

Expected Test Status: false

Actual Test Status: false

Product details after Restock:

Code: C0006 | Make: Make2 | Model: Model2 | Price: £9.00 | Department: Computing | Quantity: 2

+++++++++++++++++++++++++ End of Test Case 11 ++++++++++++++++++++++++

**TCase\_12:** Tests the search() method so that it searches the product list for the desired product and returns the product

++++++++++++ Test Case 12: search() method Test - SEARCH SUCCESS ++++++++++++

Product List:

Code: C0008 | Make: Make2 | Model: Model2 | Price: £9.00 | Department: Computing | Quantity: 2

Code: B0007 | Make: Make1 | Model: Model1 | Price: £10.00 | Department: Books | Quantity: 4

Code: O0009 | Make: Make3 | Model: Model3 | Price: £15.00 | Department: Other | Quantity: 1

Searching for product...

Code: B0007 | Make: Make1 | Model: Model1 | Price: £10.00 | Department: Books | Quantity: 4

+++++++++++++++++++++++++ End of Test Case 12 ++++++++++++++++++++++++

**TCase\_13:** Tests the search() method so that it searches the product list for the desired product but returns null when the input is invalid

++++++++++++ Test Case 13: search() method Test - SEARCH FAIL ++++++++++++

Product List:

Code: C0011 | Make: Make2 | Model: Model2 | Price: £9.00 | Department: Computing | Quantity: 2

Code: B0010 | Make: Make1 | Model: Model1 | Price: £10.00 | Department: Books | Quantity: 4

Code: O0012 | Make: Make3 | Model: Model3 | Price: £15.00 | Department: Other | Quantity: 1

Searching for product...

null

+++++++++++++++++++++++++ End of Test Case 13 ++++++++++++++++++++++++

**TCase\_14:** Tests the toString() method so that it returns the output with the correct format, categorised by their departments

++++++++++++ Test Case 14: toString() Format Test ++++++++++++

Product List:

Code: C0014 | Make: Make2 | Model: Model2 | Price: £9.00 | Department: Computing | Quantity: 1

Code: B0013 | Make: Make1 | Model: Model1 | Price: £10.00 | Department: Books | Quantity: 1

Code: B0016 | Make: Make4 | Model: Model4 | Price: £19.00 | Department: Books | Quantity: 1

Code: O0015 | Make: Make3 | Model: Model3 | Price: £15.00 | Department: Other | Quantity: 1

+++++++++++++++++++++++++ End of Test Case 14 ++++++++++++++++++++++++