Lab02

Sunday, April 7, 2024 11:06 AM

1.
```
2> c("lab02.erl").
{ok,lab02}
3> lab02:isGreater({ 2, 40, 300}, {2, 40, 100}).
true
4> lab02:isGreater({ 2, 40, 100}, {2, 40, 100}).
false
5> lab02:isGreater({ 1, 40, 100}, {2, 40, 100}).
false
6>
```

2.
```
false
6> lab02:intersection({5,5,10,9}, {0,5}).
false
7> lab02:intersection({-5,5,10,9}, {-1,3}).
true
8> lab02:intersection({-5,-5,10,9}, {-3,-3}).
true
9>
```

3.
```
> lab02:intersections({-5,-5,10,9}, [{0, 5}, {2, 2}, {-10, -10}, {1, 1}]).
{outside,{0,5}},
{outside,{2,2}},
{outside,{-10,-10}},
{outside,{1,1}}]
0> lab02:intersections({5,5,10,9}, [{0, 5}, {2, 2}, {-10, -10}, {1, 1}]).
{outside,{0,5}},
{inside,{2,2}},
{outside,{-10,-10}},
{inside,{1,1}}]
1> lab02:intersections({3,5,10,9}, [{0, 5}, {2, 2}, {-10, -10}, {1, 1}]).
{inside,{0,5}},
{inside,{2,2}},
{outside,{-10,-10}},
{inside,{1,1}}]
2>
```

4.
```
12> lab02:intersectionPartition({3,5,10,9}, [{0, 5}, {2, 2}, {-10, -10}, {1, 1}]).
{[{1,1},{2,2},{0,5}],[{-10,-10}]}
13> lab02:intersectionPartition({5,5,10,9}, [{0, 5}, {2, 2}, {-10, -10}, {1, 1}]).
{[{1,1},{2,2}],[{-10,-10},{0,5}]}
14> lab02:intersectionPartition({-5,-5,10,9}, [{0, 5}, {2, 2}, {-10, -10}, {1, 1}]).
{[],[{1,1},{-10,-10},{2,2},{0,5}]}
15>
```

5.
```
15> lab02:modEach([4, 9, -13], 4).
[0,1,-1]
16> lab02:modEach([3, 4, 9, -13], 2).
[1,0,1,-1]
17> lab02:modEach([3, 4, 9, -13], 6).
[3,4,3,-1]
18>
```

6.
```
18> lab02:removeMods([2, 3, 6], 2).
[3]
19> lab02:removeMods([2, 4, 6], 2).
[]
20> lab02:removeMods([2,2,2, 4, 6], 2).
[]
21>
```

7.
```
21> lab02:modEachAndRemoveMods([2, 3, 6, -1], 2).
[1,-1]
22> lab02:modEachAndRemoveMods([3, 3, 67, -1], 2).
[1,1,1,-1]
23> lab02:modEachAndRemoveMods([4, 0, 66, -4], 2).
[]
24>
```

8.
```
28> lab02:calculateCost([{apple, 0.99, 10, 0.1}, {banana, 1.99, 10, 0.1}]).
[{apple,10,10.89},{banana,10,21.889999999999997}]
29> lab02:calculateCost([{apple, 0.99, 10, 0.1}, {candy, 0.01, 10, 0.5}]).
[{apple,10,10.89},{candy,10,0.15000000000000002}]
30> lab02:calculateCost([{apple, 0.99, 10, 0.1}]).
[{apple,10,10.89}]
31>
```

9.
```
32> lab02:calculateTotalCost([{apple, 10, 10.89}]).
{10,10.89}
33> lab02:calculateTotalCost([{apple, 10, 10.89}, {banana, 10, 5}]).
{20,15.89}
34> lab02:calculateTotalCost([{apple, 10, 10.89}, {banana, 10, 5}, {chicken, 2, 9.99}]).
{22,25.880000000000003}
35>
```

10.
```
36> lab02:calculateTotalCost(lab02:calculateCost([{apple, 0.99, 10, 0.1}, {banana, 0.99, 6, 0.1}, {water, 0.99, 32, 0.1}
, {cheese, 1.99, 2, 0.1}, {yogurt, 3.99, 1, 0.1}])).
{51,61.039}
37> lab02:calculateTotalCost(lab02:calculateCost([{apple, 0.99, 10, 0.1}, {banana, 0.99, 6, 0.1}, {water, 0.99, 32, 0.1}
, {cheese, 1.99, 2, 0.1}, {yogurt, 3.99, 1, 0.1}, {gum, 1.00, 2, 0.1}])).
{53,63.239000000000004}
38> lab02:calculateTotalCost(lab02:calculateCost([{apple, 0.99, 10, 0.1}, {banana, 0.99, 6, 0.1}, {water, 0.99, 32, 0.1}
, {cheese, 1.99, 2, 0.1}, {yogurt, 3.99, 1, 0.1}, {gum, 1.00, 2, 0.1}, {bread, 6.99, 1, 0.1}])).
{54,70.928}
39>
```

11.
```
39> lab02:myMinMax([]).
empty_list
40> lab02:myMinMax([1,2,3,4,5]).
{1,5}
41> lab02:myMinMax([1,-3,-3,4,5]).
{-3,5}
42> lab02:myMinMax([1,-3,-3,14,5]).
{-3,14}
```

12.
```
43> lab02:getLastIndex([1, abc, 4, xyz, 7, abc], abc).
5
44> lab02:getLastIndex([1, abc, 4, xyz, 7], abc).
1
45> lab02:getLastIndex([1, 4, xyz, 7], abc).
no_such_element
46>
```

13.
```
46> lab02:labTwo().
LEADER: Jonathan's contribution was 34.0%
Caleb's contribution was 33.0%
Terence's contribution was 33.0%
done
```