

# Test

Make a solution in Node + React (webpage) that solves the following problem.

A company sells hundreds of products on-line and customer place orders from all over the world, just like eBay. Each product has a different weight and price. Every customer can order any number of different products that need to be separated into one or more packages (each containing one or more products) and then collected by the courier company for delivery to the customer.

There are certain rules for each package that must be followed:

1. The total cost of all products within a single package cannot exceed \$250 for international customs purposes.
2. If multiple packages for the same order are required, then the weight of each package should have the lowest possible shipping cost for the order and be as evenly distributed as possible.

Create a page which has the following:

- A simple vertical list of products (in the format Name - price - weight), with a check box next to items
- A button saying "Place order"
- When the user clicks on "Place order", the selected items should be submitted to the same page and the above rules should be applied to potentially divide this order into multiple packages
- Display the output result on the same page. Below is a sample output on how it should look like:

This order has following packages:

**Package 1**

Items - Item 1, Item 3, item 7

Total weight - 510g

Total price - \$240

Courier price - \$15

**Package 2**

Items - Item 4, Item 6, item 2

Total weight - 530g

Total price - \$160

Courier price - \$15

Note: Items and courier prices are listed at the bottom of this document

**We will be evaluating:**

1. your code quality specifically comments (where required),
2. formatting,
3. naming conventions,
4. size of functions,
5. easy to read and understand,
6. simplicity

Name	Price(\$)	Weight(g)
Item 1	10	200
Item 2	100	20
Item 3	30	300
Item 4	20	500
Item 5	30	250
Item 6	40	10
Item 7	200	10
Item 8	120	500
Item 9	130	790
Item 10	20	100
Item 11	10	340
Item 12	4	800
Item 13	5	200
Item 14	240	20
Item 15	123	700
Item 16	245	10
Item 17	230	20
Item 18	110	200
Item 19	45	200
Item 20	67	20
Item 21	88	300
Item 22	10	500
Item 23	17	250
Item 24	19	10
Item 25	89	10
Item 26	45	500
Item 27	99	790
Item 28	125	100
Item 29	198	340
Item 30	220	800
Item 31	249	200
Item 32	230	20
Item 33	190	700
Item 34	45	10
Item 35	12	20
Item 36	5	200
Item 37	2	200
Item 38	90	20
Item 39	12	300
Item 40	167	500
Item 41	12	250
Item 42	8	10
Item 43	2	10
Item 44	9	500
Item 45	210	790
Item 46	167	100
Item 47	23	340
Item 48	190	800
Item 49	199	200
Item 50	12	20

Courier Charges	
Weight(g)	Charge(\$)
0-200g	5
200-500g	10
500-1000g	15
1000-5000g	20