

PHP Backend Engineer Assessment

Next step is for you to complete a tiny little coding challenge for us. This shouldn't take more than 2 hours and we will assess it as fast as possible.

Question: (Product Catalog Sorting Solution for Scnip)

```
<?php
$products = [
    [
        'id' => 1,
        'name' => 'Alabaster Table',
        'price' => 12.99,
        'created' => '2019-01-04',
        'sales_count' => 32,
        'views_count' => 730,
    ],
    [
        'id' => 2,
        'name' => 'Zebra Table',
        'price' => 44.49,
        'created' => '2012-01-04',
        'sales_count' => 301,
        'views_count' => 3279,
    ],
    [
        'id' => 3,
        'name' => 'Coffee Table',
        'price' => 10.00,
        'created' => '2014-05-28',
        'sales_count' => 1048,
        'views_count' => 20123,
    ]
];

$productPriceSorter = ?
$productSalesPerViewSorter = ?

$catalog = new Catalog($products);
$productsSortedByPrice = $catalog->getProducts($productPriceSorter);
$productsSortedBySalesPerView = $catalog->getProducts($productSalesPerViewSorter);
```

Story: Our product manager wants to AB test different product sortings to see which one makes the most sales. It is possible that on different parts of your website different sortings turn out to be most effective.

Task: You get an unsorted array of products and you are required to sort it. Please the code should allow the given products to be returned in sorted order either by price, the ratio of sales per view (sales_count divided by views_count) depending on the context. It should be EXTENSIBLE so that in theory different teams could add their own sorters easily, i.e. different teams are able to create and add new sorters separate from the rest - without touching existing code.

Notes: You are highly encouraged to use any of the software design pattern and software design principles to showcase your knowledge of software engineering.

We are looking for:

- Clean code
- Use of OOP
- Understanding of design patterns
- Written in PHP (Plain PHP or Laravel Framework)
- That solves the challenge statement
- And runs!

Kindly submit your code through a Github repository within 3 days of receipt.