

# Tree nursery

PHP homework

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29. September 2018

## 1 Topic

This program is about the management of a tree nursery. I store the values listed below for every tree.

1. id, does nothing for now.
2. name, the type of the tree.
3. height, measured in  $[m]$ .
4. home, the original location of the plant.
5. price
6. age

Tree nursery

List Trees

Tree list					
Id	Name	Height	Home	Price	Age
0	Birch	1m	Europe	1000	5
1	Pine	2m	Europe	500	3
2	Oak	3m	Europe	1500	2
3	Acacia	2m	America	120	1
4	Willow	1m	Europe	2500	5
5	Palm	4m	South-Europe	15000	10
6	Birch	3m	Europe	3000	7
7	Pine	9m	Europe	400	7
7	Oak	10m	Europe	8000	5
8	Acacia	0.1m	America	10	1
10	Willow	0.5m	Europe	700	5
11	Palm	2m	South-Europe	12000	6

Figure 1: List of original trees

## 2 Questions

1. Which tree is the highest?
2. Which tree is the oldest?
3. How much 2 years old trees do we have?
4. How much Pine trees do we have?
5. How much is the total cost of our trees?

Questions	
Question	Answer
Which tree is the highest?	id: 0, name: Birch, height: 1m, home: Europe, price: 1000, age: 5
Which tree is the oldest?	id: 5, name: Palm, height: 4m, home: South-Europe, price: 15000, age: 10
How much 2 years old tree do we have?	1
How much Pine trees do we have?	2
How much is the total cost of our trees?	44730

Figure 2: List of questions and answers

## 3 Random entries

## 4 Complex question

1. Union of the two lists.
2. Intersection of the two lists.
3. Difference (trees - random trees).

The numbers represent the number of elements in the results.

Tree list					
Id	Name	Height	Home	Price	Age
0		30		15716	3
1		29		17287	19
2		24		10084	3
3		4		5193	12
4		12		18505	1
5		3		10864	15
6		18		11901	14
7		27		15129	6
8		14		19490	7
9		15		4514	12
10		6		15601	13
11		25		6030	2

Figure 3: List of randomised entries

Questions	
Question	Answer
Union of the two lists.	30
Intersection of the two lists.	0
Difference (trees - randomtrees).	10

Figure 4: List of complex questions and answers

The second complex question results in 0 elements because of the random factor, so it's table is not displayed.

```
{% if intersect is defined %}
  {% include 'tree/treelist.html.twig'
    with {'listtrees' : intersect} %}
  <br/>
{% endif %}
```

Tree list					
Id	Name	Height	Home	Price	Age
0	Birch	1m	Europe	1000	5
1	Pine	2m	Europe	500	3
2	Oak	3m	Europe	1500	2
3	Acacia	2m	America	120	1
4	Willow	1m	Europe	2500	5
5	Palm	4m	South-Europe	15000	10
6	Birch	3m	Europe	3000	7
7	Pine	9m	Europe	400	7
8	Oak	10m	Europe	8000	5
9	Acacia	0.1m	America	10	1
0	Pine	28	South-Europe	18976	17
1	Birch	27	Europe	10885	7
2	Willow	19	America	19375	9

Figure 5: List of the union of the two lists

Tree list					
Id	Name	Height	Home	Price	Age
0	Birch	1m	Europe	1000	5
1	Pine	2m	Europe	500	3
2	Oak	3m	Europe	1500	2
3	Acacia	2m	America	120	1
4	Willow	1m	Europe	2500	5
5	Palm	4m	South-Europe	15000	10
6	Birch	3m	Europe	3000	7
7	Pine	9m	Europe	400	7
8	Oak	10m	Europe	8000	5
9	Acacia	0.1m	America	10	1

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Figure 6: List of differences