

Task

for the Qualification stage of EU Web Challenge

Front-end (JavaScript)

Middle/Senior

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1. Task

Create a script the can draw a tree out of database tree representation done using preorder tree traversal method.

1.1. Task details:

- (1) Tree needs to be drawn using SVG. The example input data look like this:

```
[
  { name: "Cars", left: 1, right: 18 },
  { name: "Fast", left: 2, right: 11 },
  { name: "Red", left: 3, right: 6 },
  { name: "Ferrari", left: 4, right: 5 },
  { name: "Yellow", left: 7, right: 10 },
  { name: "Lamborghini", left: 8, right: 9 },
  { name: "Slow", left: 12, right: 17 },
  { name: "Lada", left: 13, right: 14 },
  { name: "Polonez", left: 15, right: 16 }
]
```

- (2) This data represents a tree like this:

```
Cars
|-Fast
|  |-Red
|   |  \-Ferrari
|   \-Yellow
|      \-Lamborghini
\--Slow
    |-Lada
    \-Polonez
```

- (3) You can checkout this website on more info about preorder tree traversal:

<http://www.sitepoint.com/hierarchical-data-database-2/>

1.2. **Bonus:**

- (1) Nodes can be expanded/collapsed on click.

1.3. **Output data:**

- (1) Page with a tree drawn and textarea with an input data with a possibility to modify it.
- (2) Script and styles should be residing in the separate files.

2. **Evaluation criteria**

- (1) The tree drawing should work as expected.
- (2) Quality of the code (OOO, comments, proper indentation).

3. **Solution format**

- 3.1. All documents of the solution should be in **ONE** archive in “**Name Surname**”.zip format.
- 3.2. Language of the solution should be **English**.
- 3.3. All solutions that are out of task’s scope will be ignored by the judges.
- 3.4. All solutions that are not in the requested format will not be evaluated.

4. **Judges**



Vladimir Agafonkin

A rock musician, an open source enthusiast and a JavaScript engineer at Mapbox. Vladimir is an author of Leaflet, the most popular open source web mapping library, used by the world's biggest brands like Facebook, Foursquare, GitHub, Pinterest, Evernote and European Commission.



**Łukasz
Kokoszkiewicz**

Product Analyst at Lumesse. Web developer with a great passion for UX/Interface design and love for building great websites and mobile apps. Łukasz has more than 7 years of experience. He perfectly knows HTML5, CSS3 and JavaScript. He really likes is to design/develop front-end side of the websites or web apps because he prefer his work to be truly seen.



Mariusz Nowak

Full stack JavaScript programmer, eGovernment consultant for UNCTAD. Involved in development of JavaScript tools and modules (CommonJS/Node.js) that allow robust creation of modern web applications (client & server side) targeted for both mobile and desktops.

5. Contacts

- 5.1. **Send your task solution in English from registration email at contesteu2015@webchallenge.me no later than September 20, 23:59 (CEST).**
Late submissions will not be accepted.
- 5.2. Send your questions in **English** at box@webchallenge.me. Look for the answers and clarifications regarding the task's content [here](#).
- 5.3. Judges will answer the most important questions and will ignore:
 - questions not related to the task
 - questions, answers to which were provided or are present in the task's text.
- 5.4. Finalist announcement will be conducted on October 5.

General partner

