



## Teelaunch Backend Candidate Assessment

### Overview:

Create a web page in PHP that contains 3 CTA's (call to action/buttons) each refers to the below listed exercises upon click on each, inputs appear allowing us to pass functions required params and print out the outputs accordingly.

### Delivery:

Deliver the code as a git repository you can share with us. Please describe the run procedure in the README.md file if required.

*Make sure to document your code.*

ETA: 1 day

### Exercise 1:

Create a function that reads a string parameter being passed which will consist of HTML DOM elements and plain text.

The elements that will be used are: b, i, em, div, p.

For example: "<div><b><p>hello world</p></b></div>"

- if a string is "<div><b><p>hello world</p></b></div>" then this string of DOM elements is nested correctly so your program should return the string true.
- If a string is not nested correctly, return the first element encountered where, if changed into a different element, would result in a properly formatted string.
- If the string is not formatted properly, then it will only be one element that needs to be changed. For example: if str is "<div><i>hello</i>world</b>" then your program should return the string div because if the first <div> element were changed into a <b>, the string would be properly formatted.

Consider the following examples and the respective expected function output:

Input: "<div><div><b></b></div></p>"

Output: div

Input: "<div>abc</div><p><em><i>test test test</i></em></p>"

Output: i

## Exercise 2:

Write a function that takes a random string containing: ( [ { } ] ) and determine if the input is valid.

An input string is valid if:

- Open brackets must be closed by the same type of brackets
- Open brackets must be closed in the correct order

Consider the following examples:

[] : Valid

[] : Invalid

[[ : Invalid

{}) : Invalid

[[[()]]] : Valid

### Exercise 3:

Write a function using nested for loop that creates a chess board based on the provided number of columns and rows.

Use table width="270px" and take 30px as cell height and width.

Ex: Rows = 8 / Columns = 8

