



## **JAVASCRIPT EXERCISES**

1. Reading the following statements, please indicate which information will be printed on the screen.

```
<html>
<script type="text/javascript">
 var numLlamadas = 0;
 function calculaBinomio(a, b)
   var cuadradoDeA = a*a;
   var cuadradoDeB = b*b;
   numLlamadas++;
  return cuadradoDeA + cuadradoDeB + 2*a*b;
  alert(calculaBinomio(2,3));
  alert(calculaBinomio(4,5));
  alert(numLlamadas);
  alert(typeof(cuadradoDeA));
</script>
</html>
* Explain in detail the 4th output:
alert(typeof(cuadradoDeA));
```





2. As you probably know in Javascript there is the variable type String. One of its functions is "toUpperCase", therefore we can do the following thing:

```
var s2 = "Hello World!";
alert(s2. toUpperCase ()); <- this will return: HELLO WORLD!</pre>
```

How do you rewrite the above function in order to return this text (HELLO WORLD!) in small letters?

3. Using the next function, the console should show the message: "Openbravo!!!"

```
mostrar = function(param){
  param();
}
```

E R P

4. Write a JavaScript program to check whether a matrix is a diagonal matrix or not. In linear algebra, a diagonal matrix is a matrix in which the entries outside the main diagonal are all zero (the diagonal from the upper left to the lower right).

Example:

```
[1, 0, 0], [0, 2, 0], [0, 0, 3]]) = true
[1, 0, 0], [0, 2, 3], [0, 0, 3]]) = false
```

## REACT EXERCISES

- 1. What are props in a component? Select all the options that apply.
  - Are the component parameters
  - is the state of the component





- It is a mechanism to put data inside the component
- 2. What is a component? Mark only one option.
  - An element
  - A function or class that returns an element
  - An element that returns a function or class
  - Other:\_\_\_\_\_
- 3. Which of these component types are valid? Select all the options that apply.
  - Complete Component
  - Class Component
  - Component Function
  - Parent Component
  - Child Component
- 4. What is the state of a component?



- 7. Which of these implementations change the state of a component? Check only one option.
  - this.state.value = "my value"
  - this.setState({ value: "my value" })
  - this.state = { "value": "my value" }
  - Others:\_\_\_\_\_
- 8. What happens when we change the state of a component?





9. Write a component that renders a list of elements, given a prop that contains an array of objects in the following form: { firstname: "demo", lastname: "demo", dni: 1234 }

10. Write a component that receives a prop called "data", and renders an HI with the content of data.

11. How do you import Javascript modules installed with NPM or YARN? Check only one option.

- import name from 'node\_modules/name';
- import name from '../../node\_modules/name/name.js'
- import name from '../../node\_modules/name/index.js'
- import name from 'name';
- Others:\_\_\_\_\_

12. How do I import the following component, considering that it is inside a file in the same directory, called MyComponent.js?

Mark only one option.

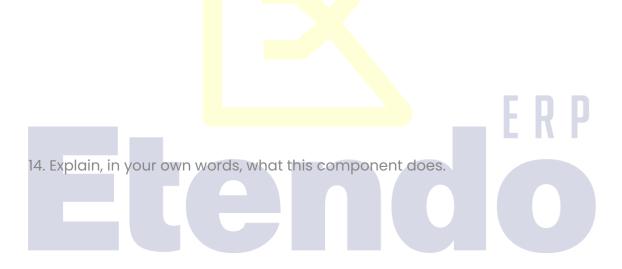
- import MyComponent from './MyComponent';
- import { MyComponent } from 'MyComponent';
- import MyComponent from 'MyComponent.js';
- import { MyComponent } from './MyComponent.js';





• Others:\_\_\_\_\_

13. What is the error in the following component?











17. What is the use of the useEffect hook?

18. How would you develop a custom hook that exposes methods to save and modify a counter? The hook must have a parameter that allows the developer to specify how much the counter should add for each call to the setter.

