

# Kernel Full Stack Developer Code Challenge

## Challenge: Search with Filters

Design and implement a search component including a search box and also some filtering boxes.

- The search process should filter the results store in memory, based on the filters applied.
- The component(s) should be flexible enough to apply new filters in the future.
- The use of Typescript will be positively valued.

The expected UI should be something like this wireframe shown below:

The wireframe shows a search interface. At the top, there's a 'FILTERS' section with two dropdown menus for 'Country' and 'Version', and a 'Clear all filters' link. Below the filters, there are two selected filters: 'Brasil' and 'España', each with an 'X' to remove it. A search bar contains the text 'Lorem'. Below the search bar, there are two document cards. The first card is titled 'Documento 1' and contains the text 'Lorem ipsum...'. The second card is titled 'Documento 5' and also contains the text 'Lorem ipsum...'.

### Notes:

- It could be assumed that we have an array of objects stored in memory with the following parameters:
  - Country: string
  - Version: string
  - Text: string
- We should list only those documents matching the country and version selected (everyone if no country or version selected), containing in the text field the string typed in the search box.
- The important part in this exercise is to demonstrate the knowledge and expertise with React and Typescript, not the final visual result. The “clear filters” or the removal of individual selected filters functionalities are secondary and optional (and their implementation may require some time, they are out of the scope of this exercise)

- It's very recommendable to include a README file (or some written explanations) summarizing the assumptions/simplifications used, the division in components done, and the general implementation of the solution, hooks used, etc.

### How do we evaluate the test?

1. How clear your explanation is.
2. How clear your code is.
3. Easiness to run the service and reproduce the test.
4. How all your staff is shared.

After you finish the exercise, you will have the opportunity to present it to several members of the team and discuss design and implementation if it has the quality we require. Once presented you can do bug fixing and slight features, but they should not be big and you'll have to explain them.

### How much time do I have?

72h since you received this exercise. We consider that's enough time to solve it and that you should spend less than 4 hours to complete it. If you need more time because of personal matters, just let us know.

### How can I ask questions to the team?

You will be leading the project. If you have questions, need feedback, etc... you can send an email to the address where you have received the exercise, we will answer you asap.

### Rules

- Your solution should be clean, readable, maintainable and implemented with emphasize on DevOps methodologies
- You are free to use the programming language, tools and cloud platform of your choice
- Remember, we don't know your solution, we need to understand it as easily as it is possible.
- We are absolutely not looking for completion or perfection, we expect trade-offs to be made
- Submit all the codebase, diagrams and documents
- Bonus points: For the solutions built with best security practice
- Bonus points: For the solutions built with out of box approach