

# Goal

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The goal of this task is to implement the find challenge. The user must find one or more translations of a given word inside a grid of letters.

## Specification

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You're given a word *source* and a list of translations *targets*. Your task is to display the word *source* and a grid of letters that contains all the *targets*. The user's task is to find all the translations in the grid. The user selects letters by dragging on the cells in the grid (<https://youtu.be/2gzMX3NICB0>). When the selected letters form a valid translation of the source word, they should remain highlighted. Otherwise, the selection should disappear. After all targets have been found, the app should display a new grid and source word.

Your app should make a network request to obtain this source data: [https://s3.amazonaws.com/duolingo-data/s3/js2/find\\_challenges.txt](https://s3.amazonaws.com/duolingo-data/s3/js2/find_challenges.txt). Each line contains a JSON object. Here is a spec for the file format:

- "word": the source word
- "character\_grid": the character grid to be shown
- "word\_locations": a dictionary where each key is a list of coordinates in the format: x1, y1, x2, y2, ..., xn, yn and the value is the target word in that location.

Target words may appear horizontally, vertically, or diagonally. They should be selectable both forwards and backwards. Additional requirements:

- Your app must use React and either TypeScript or JavaScript.
- You may bundle the game data inside your app instead of making a network request.
- Your app must support the latest version of Chrome.

## Hand-In

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A zip file containing your source code. Please don't post your code online!

# Evaluation

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Your code will be evaluated by the following criteria in this order:

1. Usability: Is it easy to select words? Is the UI intuitive?
2. Correctness: Are all requirements met? Does your app have bugs or crashes?
3. Cleanliness: Is the code well-organized and easily maintainable?