Challenge: Find All Permutations of a String

Let's practice our recursion skills and solve the first coding challenge of this course.

We'll cover the following

Let's bring into practice our recursion skills and solve the first coding challenge of this course.

Problem statement

Given a string, `str`, you are required to output an array containing all the possible permutations of that string. By permutation, we simply mean all the different arrangements of the characters of that string.

Input

Your input will be a single string `str`.

```
str = "abc"
```

Output

Your function should return a list of all possible permutations of the string `str`.

```
permutations(str) = ["abc", "acb", "bac", "bca", "cab", "cba"]
```

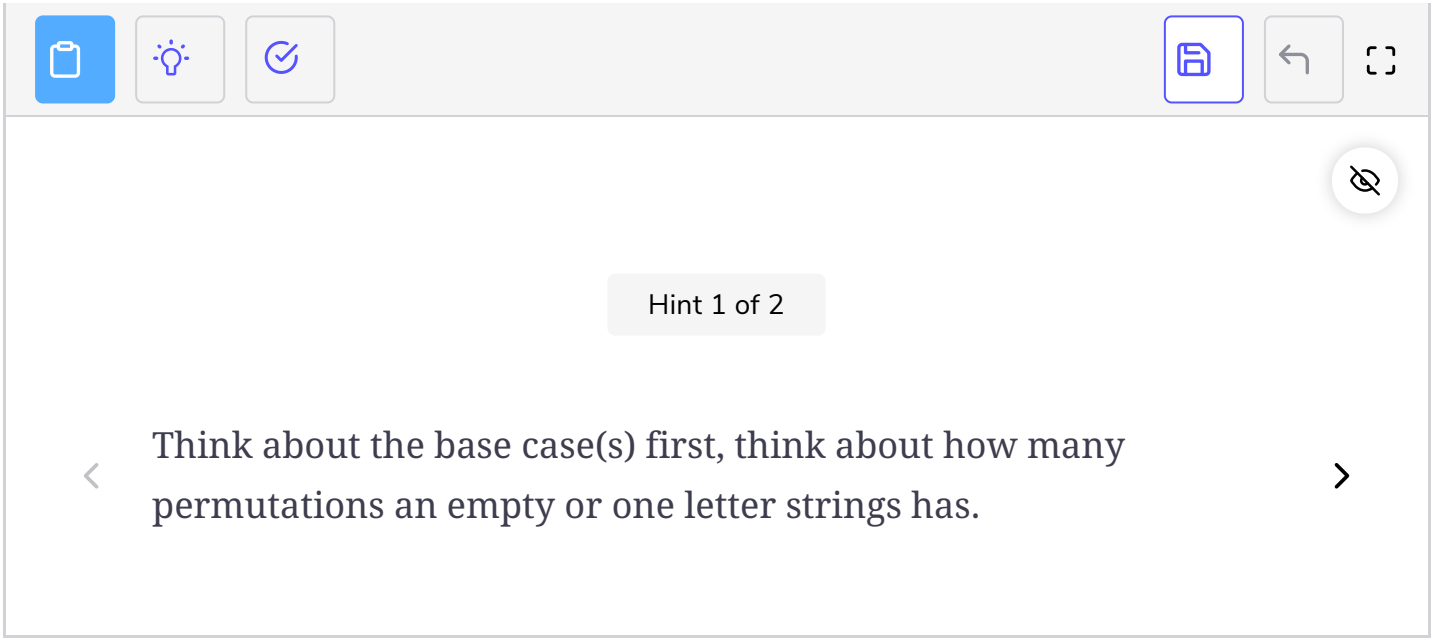
You should not change the prototype of function `permutations`, as this will affect testing. You can make another function of the desired prototype and call it from `permutations`.

Coding challenge

Carefully think about what the base case will be and how you will make recursive calls. You may look at hints if you feel stuck. Best of luck!

```
def permutations(str):
  # your code goes here

  return []
```



In the next lesson, we will review the solution to this challenge.