Question 1: Code Writing Write a function definition with the following expectations:

- The function name is short_words and is called with a `list[str]` as an argument.
- The function should **return** a new `list[str]` of the words from the input list that are shorter than 5 characters.
- If a word is not added to the new list because it is too long, the function should **print** a string stating that it was too long.
- The function should not mutate (modify) the input list.
- Explicitly type variables, parameters, and return types. (The autograder won't check for this, but it's good practice for the quiz!)
- If using the autograder, save your file as short_words.py.
- The following REPL examples demonstrate expected functionality of your `value_exists` function:

```
1  >>> my_list: list[str] = ["sun", "cloud", "sky"]
2  >>> short_words(my_list)
3  cloud is too long!
4  ['sun', 'sky']
```

1.1. Write your function definition here: