Challenge 7: Next Greater Element Using a Stack

Using a stack, can you implement a function to find the next greater element after any given element in a list?

We'll cover the following   ⌃

- Problem Statement
  - Input
  - Output
  - Sample Input
  - Sample Output
- Coding Exercise: Judge for yourself!

Problem Statement#

You are required to implement the `next_greater_element()` function. For each element i in a list, the function finds the first element to its right which is greater than element i. If for any element such a value does not exist, the answer is `-1`.

> **Note:** The next greater element is the first element towards the right which is greater than the given element. **For example**, in the list [1, 3, 8, 4, 10, 5], the next greater element of 3 is 8 and the next greater element for 8 is 10.
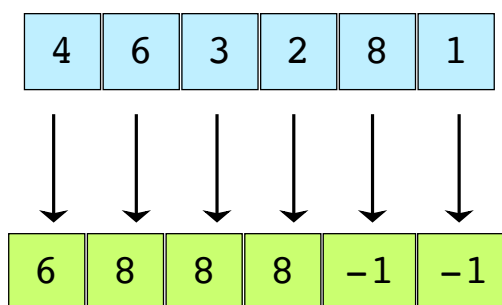
Input#

An integer list.

Output#

A list containing the next greater element of each element from the input list.

Sample Input#

```
list = [4, 6, 3, 2, 8, 1]
```

Sample Output#

```
result = [6, 8, 8, 8, -1, -1]
```


Coding Exercise: Judge for yourself!

Take a close look at the problem and design a step-by-step algorithm before jumping on to the implementation. Check if the console prints the correct next greatest element for the given number in the list.

This problem is designed for your practice, so try to solve it on your own first.

If you get stuck, you can always refer to the solution review. Good luck!

main.py

Stack.py

```python
from Stack import MyStack

def next_greater_element(lst):
    # Write your code here
    pass
```

Let's review the solution to this challenge, in the next lesson.

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