Problem 6: Given a circular integer array **A**, return the next greater element for every element in A. The next greater element for an element x is the first element greater than x that we come across while traversing the arrayin a clockwise manner. If it doesn't exist, return -1 for this element.

```
def next_greater_elements(N, A):
    stack = []
    result = [-1] * N
    for _ in range(2):
        for i in range(N):
            while stack and A[i] > A[stack[-1]]:
                result[stack.pop()] = A[i]
            stack.append(i)

    return result
N = 11
A = [3, 10, 4, 2, 1, 2, 6, 1, 7, 2, 9]
result = next_greater_elements(N, A)
print(result)
```