5.1 Dutch national flag problem

We can solve this problem by using a quick-sort like algorithm. Which will give you O(n) time complexity.

using partitioning technique, given A and a pivot_index.

A[:pivot_index] + A[pivot_index] + A[pivot_index:]

```
lesser = 0
greater = len(A) - 1
pivot = A[pivot_index]
```

two passes.

```
1. for i in range(len(A)):
       if A[i] ≤ pivot:
           swap(i, lesser)
           lesser += 1
2. for j in reversed(range(len(A))):
       if A[j] ≥ pivot:
           swap(j, greater)
           greater -= 1
```