EXPERIMENT-8

TO SORT AN ARRAY USING BUBBLE SORT AND ANALYZE TIME COMPLEXITY USING BIG O NOTATION

PROGRAM:

```python
def bubble_sort(arr):
    n = len(arr)
    for i in range(n - 1):
        swapped = False
        for j in range(0, n - i - 1):
            if arr[j] > arr[j + 1]:
                arr[j], arr[j + 1] = arr[j + 1], arr[j]
                swapped = True
        if not swapped:
            break
    return arr
nums = [5, 2, 9, 1, 5, 6]
print("Sorted Array:", bubble_sort(nums))

```

OUTPUT:

```
Sorted Array: [1, 2, 5, 5, 6, 9]

=== Code Execution Successful ===
```