

72.WRITE A PYTHON PROGRAM OF BUBBLE SORT

PROGRAM:

```
def bubble_sort(arr):
    n = len(arr)
    # Traverse through all array elements
    for i in range(n):
        # Last i elements are already in place
        for j in range(0, n-i-1):
            # Traverse the array from 0 to n-i-1
            # Swap if the element found is greater than the next element
            if arr[j] > arr[j+1]:
                arr[j], arr[j+1] = arr[j+1], arr[j]

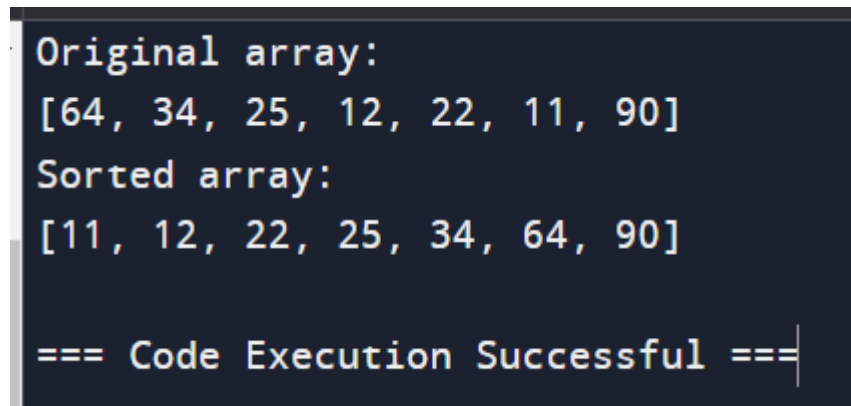
# Example usage
if __name__ == "__main__":
    # Sample array
    array = [64, 34, 25, 12, 22, 11, 90]

    print("Original array:")
    print(array)

    bubble_sort(array)

    print("Sorted array:")
    print(array)
```

OUTPUT:-



```
Original array:
[64, 34, 25, 12, 22, 11, 90]
Sorted array:
[11, 12, 22, 25, 34, 64, 90]

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

TIME COMPLEXITY:- $O(n^2)$