Program:

```python
def partition(arr, low, high):
    pivot = arr[high]
    i = low - 1

    for j in range(low, high):
        if arr[j] <= pivot:
            i += 1
            arr[i], arr[j] = arr[j], arr[i]

    arr[i + 1], arr[high] = arr[high], arr[i + 1]
    return i + 1


def quick_sort(arr, low, high):
    if low < high:
        pi = partition(arr, low, high)

        # Recursively sort elements before and after partition
        quick_sort(arr, low, pi - 1)
        quick_sort(arr, pi + 1, high)


# Input
arr = list(map(int, input("Enter the elements of the array separated by space: ").split()))
low, high = 0, len(arr) - 1


# Perform quick sort
quick_sort(arr, low, high)


# Display the sorted array
print("Sorted array is:", arr)
```

Output:

```
PS C:\Users\katur\Music\DAA practicals> & C:/Users/katur/AppData/Local/Programs/Python/Python312/python.exe "c:/Users/katur/Music/DAA practicals/practicall3.py"
Enter the elements of the array separated by space: 11 12 13 23 34 54 56 67 78 89 88 7
Sorted array is: [7, 11, 12, 13, 23, 34, 54, 56, 67, 78, 88, 89]
PS C:\Users\katur\Music\DAA practicals>
```