

Practical – 3
Selection Sort

Code:

```
def selection_sort(arr):
    n = len(arr)
    for i in range(n):
        min_idx = i
        for j in range(i+1, n):
            if arr[j] < arr[min_idx]:
                min_idx = j
        arr[i], arr[min_idx] = arr[min_idx], arr[i]
        print(f"Step {i+1}: {arr}")
    return arr

arr = input("Enter comma-separated values to sort: ").split(',')
arr = [int(x.strip()) for x in arr]

print("Original array:", arr)
sorted_arr = selection_sort(arr)
print("Sorted array:", sorted_arr)
```

Output:

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS D:\My Files\Programmes\AI_Pract> & "C:/Program Files/Python311/python.exe" "d:/My Files/Programmes/AI_Pract/selection_sort.py"
Enter comma-separated values to sort: 11,25,12,22,64
Original array: [11, 25, 12, 22, 64]
Step 1: [11, 25, 12, 22, 64]
Step 2: [11, 12, 25, 22, 64]
Step 3: [11, 12, 22, 25, 64]
Step 4: [11, 12, 22, 25, 64]
Step 5: [11, 12, 22, 25, 64]
Sorted array: [11, 12, 22, 25, 64]
PS D:\My Files\Programmes\AI_Pract> □
```