- ☐ Write a Python program to store first year percentage of students in array. Write function for sorting array of floating point numbers in ascending order using quick sort and display top five scores.

```
def quick_sort(arr):
    """
    Function to perform Quick Sort on the array.
    """
    def partition(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_recursive(low, high):
        if low < high:
            pi = partition(low, high)
            quick_sort_recursive(low, pi - 1)
            quick_sort_recursive(pi + 1, high)

    quick_sort_recursive(0, len(arr) - 1)

def display_top_five(arr):
    """
    Function to sort the array and print the top five scores.
    """
    # Sort the array
    quick_sort(arr)
```

```
    # Display the top five scores
    top_five = arr[-5:] #if len(arr) >= 5 else arr
    print("Top Five Scores:")
    for score in top_five:
        print(f"{score:.2f}")

def main():
    # Example array of first-year percentages
    percentages = [
        85.5, 92.3, 78.6, 89.4, 90.1,
        94.7, 81.2, 79.9, 77.3, 95.5
    ]

    print("Original Percentages:")
    for p in percentages:
        print(f"{p:.2f}")

    display_top_five(percentages)

// Output
```

```
Original Percentages:
85.50
92.30
78.60
89.40
90.10
94.70
81.20
79.90
77.30
95.50
Top Five Scores:
89.40
90.10
92.30
94.70
95.50

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