

## Title: Sorting the Perfect Lineup

**Problem Statement:** Emily, an event organizer at the Grand Music Festival, must arrange ten different bands in the perfect order based on their popularity and crowd engagement. Each band has a popularity score ranging from 1 to 100, and her goal is to sort them in descending order so that the most popular band headlines the event while maintaining an optimal flow of excitement. Given an unordered list of bands with their respective popularity scores, implement a sorting algorithm to determine the perfect lineup.

### Constraints:

- The list contains exactly 10 bands.
- Each band has a unique popularity score.
- The sorting algorithm should be efficient and must use **Selection Sort**.
- The solution should output the sorted list in descending order.

### Example Input:

```
Bands = [("Coldplay", 75), ("The Rolling Stones", 90), ("Imagine Dragons", 60),  
("Arctic Monkeys", 85), ("Queen", 95),  
("The Killers", 70), ("Foo Fighters", 80), ("Green Day", 65), ("Muse",  
55), ("Radiohead", 50)]
```

### Expected Output:

```
[("Queen", 95), ("The Rolling Stones", 90), ("Arctic Monkeys", 85), ("Foo  
Fighters", 80), ("Coldplay", 75),  
("The Killers", 70), ("Green Day", 65), ("Imagine Dragons", 60), ("Muse", 55),  
("Radiohead", 50)]
```

### Solution Approach:

1. Implement **Selection Sort** to sort the bands based on their popularity scores.
2. Identify the band with the highest popularity score and place it in the first slot.
3. Repeat the process for the remaining slots until all bands are sorted.
4. Output the sorted list in descending order.

**Implementation (C Code):**

```
#include <stdio.h>
#include <string.h>

#define NUM_BANDS 10

typedef struct {
    char name[50];
    int popularity;
} Band;

void selectionSort(Band bands[], int n) {
    //Write your code here
}

void printBands(Band bands[], int n) {
    for (int i = 0; i < n; i++) {
        printf("%s (%d)\n", bands[i].name, bands[i].popularity);
    }
}

int main() {
    Band bands[NUM_BANDS] = {
        {"Coldplay", 75},
        {"The Rolling Stones", 90},
        {"Imagine Dragons", 60},
        {"Arctic Monkeys", 85},
        {"Queen", 95},
        {"The Killers", 70},
        {"Foo Fighters", 80},
        {"Green Day", 65},
        {"Muse", 55},
        {"Radiohead", 50}
    };

    selectionSort(bands, NUM_BANDS);
    printBands(bands, NUM_BANDS);

    return 0;
}
```