

## 1) (10 pts) DSN (Dynamic Memory Management in C)

Suppose we have an array to store the TV shows we wanted to watch over break. Now that the break is over, we have watched all the shows and we need to delete our list. Our array is an array of structures that contains the name of each show and the number of seasons to watch for that show. The name of the show is a dynamically allocated string to support the different lengths of show names. Write a function called `delete_show_list` that will take in the show array as well as the length of that array, and free all the memory space that the array previously took up. Your function should take in 2 parameters: the array called `show_list` and the length of that array, `length`. It should free all the dynamically allocated memory associated with the list and return `NULL`, to indicate that the list has been deleted.

```
struct tv_show {
    char *show_name;
    int number_of_seasons;
};

struct tv_show * delete_show_list (struct tv_show *show_list, int length) {

    int i;

    for(i = 0; i < length; i++)           // 2 pts
        free(show_list[i].show_name);    // 3 pts

    free(show_list);                      // 3 pts

    return NULL;                          // 2 pts

}
```