CS1713 Introduction to Computer Programming II  
Exercise #09: Sorting

**Part I:** Assume the following typedef typedef:

typedef struct
{
    char szCourseId[8];  // course identifier
    int iSectionNr;     // course section number
    char szTitle[30];   // course title
    int iCreditHours;   // Number of credit hours
    char cHasRecitation; // Either Y (has recitation) or N
    char szProf[20];    // Last name of the professor
} Course;

1. Show a function which uses the bubble sort to sort that array by szCourseId based on the following prototype:

   ```c
   void sortById(Course courseM[], int iCourseCnt);
   ```

2. Suppose we want to sort by two attributes instead of just one. We wish to sort courseM by two attributes (szCourseId and then iSectionNr). Show the function `sortByIdAndSect` based on this prototype:

   ```c
   void sortByIdAndSect(Course courseM[], int iCourseCnt);
   ```

   **Hint:** to sort by two attributes, use a condition like the following:

   ```c
   if (arrayM[j+1].attr1 < arrayM[j].attr1
      || ( array[j+1].attr1 == arrayM[j].attr1
            && array[j+1].attr2 < arrayM[j].attr2))
   ```