Part 1

- Store the three list of students into 3 separate arrays
- Using merge sort algorithm
- 1. If n < 2
- 2. Return
- 3. Else
- 4. mid = (low+high)/2
- 5. Merge_Sort(A, low, mid)
- 6. Merge_Sort(A, mid+1, high)
- 7. Merge(A, low, mid, high)
- Merge any first two arrays then store into one
- Then merge the remaining array and the temp array
- Once you have only one array containing all students
- Sort using bubble sort algorithm
- for (i = 1; i < num; i++)
- {
- for (j = 1; j < num; j++)
- {
- if (strcmp(student[j - 1], student[j]) > 0)
- {
- //bubble sort algorithm
- strcpy(temp, student[j - 1]);
- strcpy(student[j - 1], student[j]);
- strcpy(student[j], temp);
- }//end bubble sort if
- }//end in for
- }//end out for
- The big O for this is O(n^2)
- Because there are two loops and each loop is doing O(n) amount of work.

Part 2

I said that I still had the dit students in certain parts of the array and then compared the name entered to the names in the array.

Part 3

Again just checked the surname entered against the surnames that were in the the array and if one matched printed out the name.