```
                        search_struct_person.c
//Sorting & Searching string data using structures...........
//
// CS5900 - Summer 2015
// Shastri - OU

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

struct person
{
                char name[10];
                int ID;
                double score;
};

typedef struct person NAME;

NAME   student[10],  temp[10];
       char key[8];
       int found = 0;

        void sort(int W);                  /* Function declaration */

int main()
{
        int n,i;
        char res = 'Y';

        fflush(stdin);

        printf("Enter the number of students in the list\n");
        scanf("%d",&n);

        for(i = 0; i < n; i++)
        {
                printf("\nEnter the name of student %d : ", i+1);
                fflush(stdin);
                gets(student[i].name);

                printf("Enter the Student ID of %d : ", i+1);
                scanf("%d",&student[i].ID);
                temp[i] = student[i];

                printf("Enter the test score of %d : ", i+1);
                scanf("%lf",&student[i].score);
                temp[i] = student[i];
        }
        printf("\n*****************************\n");
        printf ("\n      Names before sorting      \n\n");

    /* Print the list of names before sorting */
        for(i = 0;i < n; i++)
        {
                        printf("%-10s\t%3d
\t%.2f\n",temp[i].name,temp[i].ID,temp[i].score );
        }
                                Page 1
```

```c
                    search_struct_person.c
            sort(n);           /* Function call */

        printf("\n***************************\n");
        printf ("\n      Names after sorting      \n");
        printf("\n***************************\n\n");

    /* Display the sorted names */
        for(i = 0;i < n; i++)
        {
                    printf("%-10s\t%3d
\t%.2f\n",student[i].name,student[i].ID,student[i].score );
        }
        printf("\n***************************\n");

        printf("\nWould you like to search? ");
        scanf("%\nc", &res);

        if ((res == 'y') || (res == 'Y'))
        {
        printf("\nEnter the name to search: \n");
        fflush(stdin);
        gets(key);

    for (i = 0; i < n; i++)
    {
        if (strcmp(student[i].name, key) == 0)
        {
            printf("\n%s is present at index %d, means position %d\n", key, i,
i+1);
            found = 1;                //search has found the match...
            break;
        }
    }

    if ((!found)|| (res == 'n') || (res == 'N'))
        printf("\n%s is NOT present in array.\n", key);

        }

    printf("\n** End of Program!  ** \n");

    getch();
        return 0;
}          /* End of main() */

/* Function to sort the given names */
void sort(int W)
{
                int i,j;
                NAME temp;

                for(i = 0; i < W-1;i++)
                {
                            for(j = i+1; j < W; j++)
                            {

if(strcmp(student[i].name,student[j].name) > 0 )
```
Page 2

```
        {
                temp      = student[i];
                student[i] = student[j];
                student[j] = temp;
        }
    }
  }
}
```