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Class: BCSE II      Sem: First  
Session 2020-21

**Assignment Set: 1    Problem No. 3**

**Problem Statement:** Store the names of your classmates according to roll numbers in a text file one name per line. Write a program to find out from the file, the smallest and largest names and their lengths in number of characters. Write a function to sort the names alphabetically and store in a second file.

**Solution Approach:**

All names are read from file and stored in memory using an array of string, then sorted using insertion sort.

**Structured Pseudocode:**

```
Read strings and store in list[100]
size = no of strings
for i=1 to size
    temp = list[i];
    j=i-1;
    while (j >= 0 and list[j]>temp)
        list[j+1] = list[j];
        j--;
    list[j+1] = temp;
end for
```

**Results:**

For results, see attached text file radomstring.txt

**Discussion**

All strings are read into memory then sorted using insertion sort. The string array is traversed to find smallest and longest length of strings.

**Separate files containing commented source code:**

source code assignment6.c is attached .