

## PROBLEM STATEMENT

Write a program that reads provided files (Input\_01.txt and Input\_02.txt) containing alphabetically sorted words list (one word per line, no spaces, all lower case)

Identifies & display below given data in logs/console/output file.

- longest compounded word
- second longest compounded word
- time taken to process the input file

Note: A compounded word is one that can be constructed by combining (concatenating) shorter words also found in the same file

**Input 01 :**Input\_01.txt is a small word list, consisting following words.

```
cat
cats
catsdogcats
catxdogcatsrat
dog
dogcatsdog
hippopotamuses
rat
ratcatdogcat
```

Answer:

```
Longest Compound Word: ratcatdogcat
Second Longest Compound Word: catsdogcats
Time taken to process file Input_02.txt 500 milli seconds
```

Note: Hippopotamuses is the longest word but that is not the answer as it is not a compound word.

**Input 02:** Input\_02.txt is a long word list, consisting of 100,000+ items

Answer:

```
Longest Compound Word: ethylenediaminetetraacetates
Second Longest Compound Word: electroencephalographically
Time taken to process file Input_02.txt 8000 milli seconds
```