

# Object-oriented Programming

## Section J,K Fall 2020

### Assignment 1

**Due Date: Thursday, October 1, 2020**

#### Paraphrasing Application

Paraphrasing is the process of rewording a text, often done for simplification or clarity. Implement a simple C++ console-based application for paraphrasing purposes, in the following manner.

1. Read a file that contains a list of words and synonyms, where each synonym is separated by a single white space character, as in the following example:

```
abandon discontinue vacate
absent missing unavailable
cable wire
calculate compute determine measure
safety security refuge
```

Consider use of parallel arrays as well as (dynamically allocated) array of arrays for storing the synonyms, once the file is read. For instance, the above file may be represented in the memory in the following manner

#### words array

0	abandon
1	absent
2	cable
3	calculate
4	safety

#### synonyms array of array

0	ptr0	→	discontinue	vacate	
1	ptr1	→	missing	unavailable	
2	ptr2	→	wire		
3	ptr3	→	compute	determine	measure
4	ptr4	→	security	refuge	

Where, ptr0, ptr1, etc. are pointers assigned at run-time.

2. Take a text as input from the user and tokenize it into words.
3. For each word (after step 2) that exists in the list of synonyms loaded (in step-1), replace it with corresponding synonym (selected randomly in case of multiple options)
4. Produce the output as paraphrased text