

Project

You are assigned to develop a KWIC project. In this project, there are mandatory four parts, each of which has two alternative features.

Part A: (1) input all lines from console.

and (2) input all lines from a text file.

Part B: (1) shift a line in clockwise order; and (2)

shift a line in counterclockwise order;

Part C (1) sort all lines in alphabetized order; and

(2) sort all lines in reverse-alphabetized order;

Part D (1) output in plain text; and (2)

output in GUI.

There are also two optional features: Part E: Eliminate all noise words. You may predefine a set of noise words by yourself inside the program or via the command line or a file; and Part F: replace all of letter “e” by letter “q”.

In order to decide whether to execute Part E and/or Part F, you may introduce some commands that can be input via the command line.

(1) Introduce an integrated solution using Abstract Factory Pattern, Builder Pattern and Singleton Pattern for the above descriptions (STORED IN FOLDER ONE)

(2) Revise your answer from (1) by replacing Prototype Pattern with Abstract Factory Pattern (STORED IN FOLDER TWO)

Deliverables:

- Please put the source code of (1) and (2) in two different folders.
- Do not forget about UML and adding comments in the source code of both folders.
- Explain the advantages and tradeoff of each folder in terms of SOLID principles, cohesion and coupling.
- Please also compare (1) and (2) and mention the advantages and tradeoff between (1) and (2). Please put this part in FOLDER TWO.