Coding Exercise

Execution environment: Linux/macOS/Windows

Programming Language: Python 3.6.x and above.

Instructions

Your task is to create two Python applications communicating with each other where "Application A" monitors the changes to a ".txt" or a ".log" file which contains entries line by line and informs "Application B" which is responsible for displaying the change in format of:

- Line no:2 is modified from "He is good at Java." to "He is good at Python."
- Line no:5 is added "He is also good at JavaScript."
- Line no:7 is deleted.

Example of running the applications

Your initial .txt file

```
This is line 1.

This is line 2.

This is line 3.
```

The .txt file is modified (after x seconds)

```
This is line 1.

This is line 7.
```

Expected output:

- Line no:2 is modified from "This is line 1." to "This is line 7."
- Line no:3 is deleted.

The communication method for the two applications should be scalable, i.e., you should be able to have multiple instances of "Application B". The two applications should be event-driven without introducing unnecessary delay or system load.

Notes

The assignment is not about creating a complete and polished application, but about showing us that you can design an application from the ground up. We have intentionally left the specification open to interpretation to give you room to be creative but also to determine some suitable limits of the application. There are no absolute right and wrong answers to this exercise.

Please keep in mind:

- Code quality matters
- Please document well with comments in the code.
- Testability is important.