

File Monitoring System

The system consists of two parts:

1. Generator
2. Search

Generator:

- Upon execution of the command ``python3 generator.py``, the generator starts writing pseudo random strings of various lengths to two different files (picks file randomly) every few seconds.
- It has 50% probability of generating a specific keyword ('CDS' in current case)
- If the data file gets larger than ten megabytes, the data in the file gets archived under the Archives directory with a timestamp.
- Variables such as string length, data length, execution interval, data file names, keyword and so on can be configured in the 'config.py' file.

Search:

- Upon execution of the command ``python3 search.py``, the search code picks up data files from the config file and starts searching for the occurrence of a specific keyword ('CDS' in current case).
- Upon completion of search, the search code writes the count along with data file name to a separate logs file in "filename – count" format with timestamp.
- If the logs file gets larger than ten megabytes, the data in the file gets archived under the Archives directory with a timestamp.
- Variables such as keyword, search interval, logs file name, and so on can be configured in the 'config.py' file.

Notes:

- Both generator & search should be run separately in two separate console/terminals. They will execute in parallel to each other.
- The system has been developed with a sole dependency on one single library called 'schedule'. Apart from that, the system is only dependent on Python 3.
- Please refer to the file 'readme.txt' for instructions on how to operate the system.
- You can also refer to the snapshots of the command windows for both generator & search under the 'Docs' directory.