

language: Python 3.7.7

required libraries :

- ① pandas 1.3.5
- ② numpy 1.21.6
- ③ re
- ④ nltk 3.8.1
- ⑤ scikit-learn 1.0.2
- ⑥ genism 4.2.0
- ⑦ math
- ⑧ random
- ⑨ os
- ⑩ subprocess
- ⑪ scipy 1.7.3