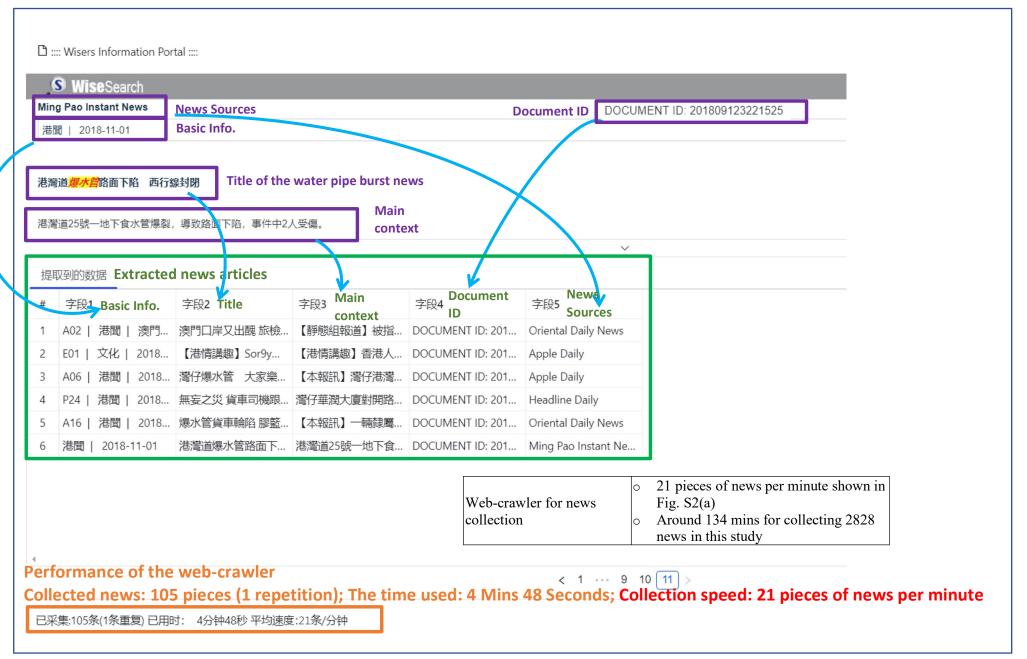
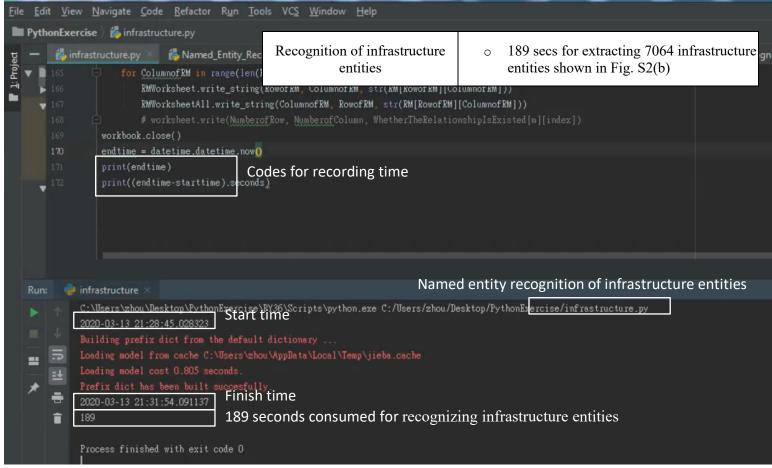
Configurations of the computer

Operation system: Win7

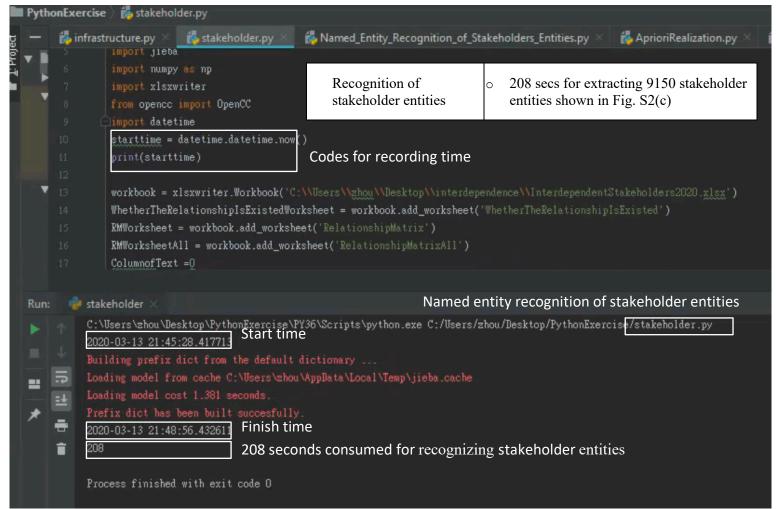
CPU: Intel i7 8th RAM: 12G ROM: 512G



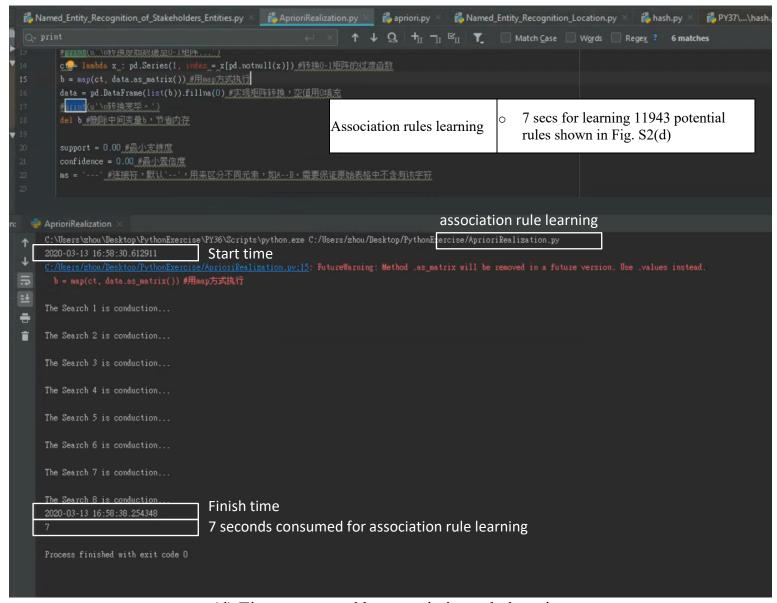
(a) Time consumed by web-crawler for collecting news articles



(b) Time consumed by recognizing infrastructure entities



(c) Time consumed by recognizing infrastructure entities



(d) Time consumed by association rule learning

Fig. S4-1 Time consumptions of main steps in the text mining approach