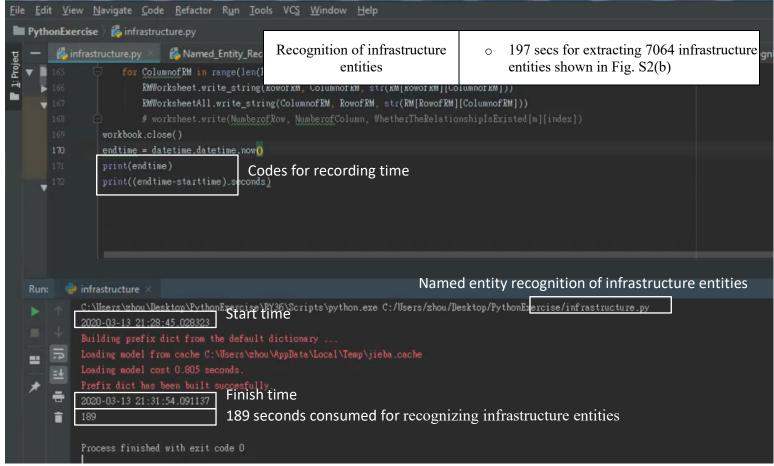
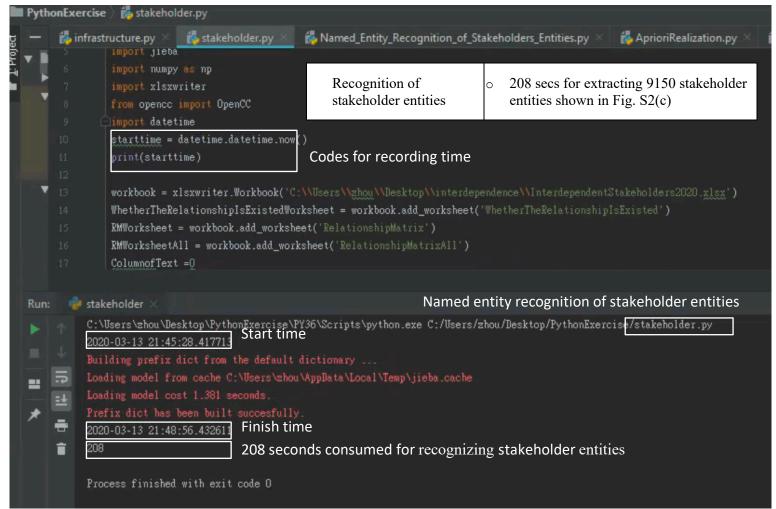


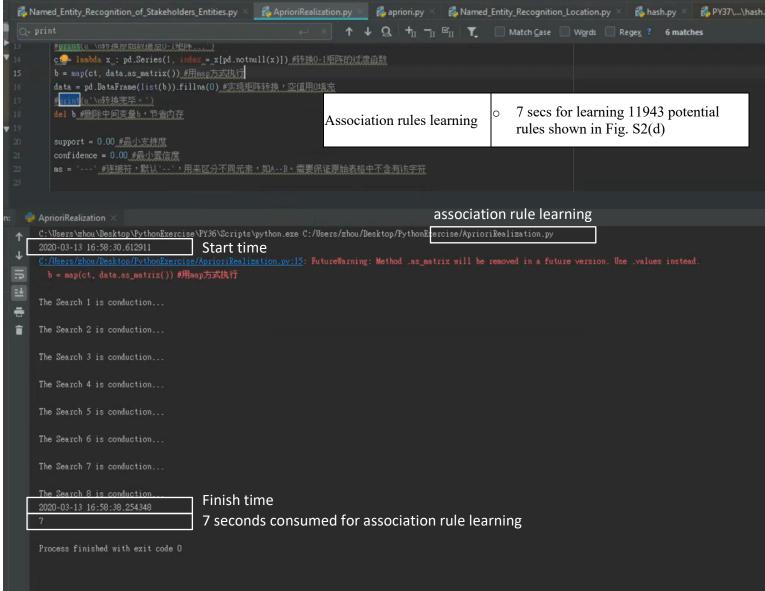
(a) Time consumed by web-crawler for collecting news articles



(b) Time consumed by recognizing infrastructure entities



(c) Time consumed by recognizing infrastructure entities



(d) Time consumed by association rule learning