1 Instructions

1.1 Definitions

- Newspapers indexed by $m \in \{1, 2, ..., M\}$
- Time periods (quarters) indexed by $t \in \{1, 2, ..., T\}$
- Sectors indexed by $n \in \{1, 2, ..., N\}$
- Companies indexed by $k \in \{1, 2, ..., K\}$

Construct time series as follows

1. Construct $(T \times M \times K)$ array A such that $a_{t,m,k}$ is the number of time company k was mentioned in newspaper m in period t.
2. Define $(T \times N)$ array B such $b_{t,n} = \sum_{m=1}^{M} \sum_{k=1}^{K} a_{t,m,k} \times (C_{t,k} = true) \times (k$ is in sector $n)$
3. Plot times series (columns of B) with sector labels.
4. Output B as excel spreadsheet.

Example constraints

- Is $a_{t,m,k} > 0$ for at least 3 dimesnions of m?
- Is $a_{t,m,k} > 0$ for at m=1, 4, 7?
- Is $a_{t,m,k} > c \in \mathbb{N}$ for at least 3 dimesnions of m?