

CS5560 Knowledge Discovery and Management
In-Class-Exercise (ICE-1A)

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We are supposed to build a knowledge graph for the following input (text data).

1. Describe your knowledge about knowledge graph.
2. Why do we want to build such a knowledge graph?
3. What steps are required? Show your own workflow for this task.
4. What are the challenges?
5. Draw a knowledge graph for the given data.

CHICAGO (AP) — Citing high fuel prices, United Airlines said Friday it has increased fares by \$6 per round trip on flights to some cities also served by lower-cost carriers. American Airlines, a unit AMR, immediately matched the move, spokesman Tim Wagner said. United, a unit of UAL, said the increase took effect Thursday night and applies to most routes where it competes against discount carriers, such as Chicago to Dallas and Atlanta and Denver to San Francisco, Los Angeles and New York.

① Knowledge Graph ← It is the graphical representation of data to answer user query in the form of semantic web and providing structural and detailed information about the topic. It is extensively being used by Google and enables users to get answers without browsing dozens of web pages.

② → It helps us in several ways as mentioned below

- (a) Google will be better to extract powerful and accurate data about the users.
- (b) It helps in providing more accurate information in response to user search queries within the shortest possible of time.

③ steps to build knowledge graph :-

(1) Natural Language Processing (NLP)

It involves sentence segmentation, tokenization, then stemming, part-of-speech tagging and parsing

Dependence Parsing is as follows sentence by sentence.
 (2) KNOWLEDGE GRAPH

