Part 1:

Context Based Item Recommender System

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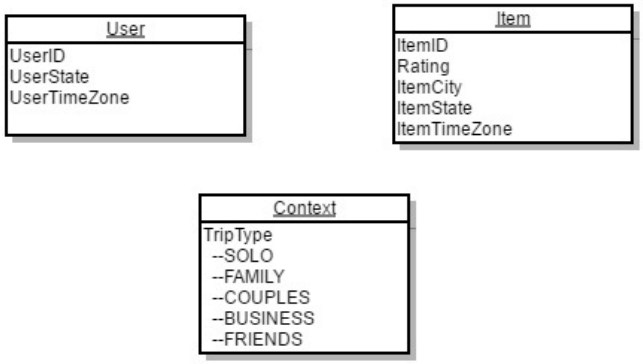
Objective: Build a context-aware recommendation engine to recommend 'items' (such as **hotels**, **movies**) to users.

Data source: https://github.com/irecsys/CARSKit/tree/master/context-aware_data_sets

Datasets: Here are the sample datasets we plan to leverage to run against the recommender model

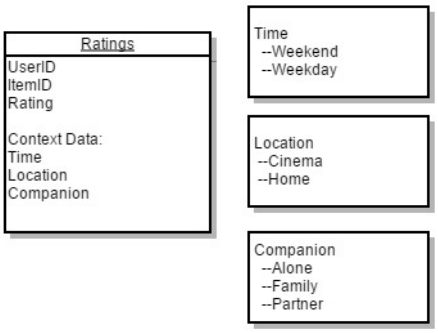
Hotel Recommender Dataset:



Or

Movie Recommender Dataset:

In this 'toy' data set, there are around 5000 ratings with context information such as Time, Location and Companion.



Requirements:

- The high level requirements are simply providing recommendations, predications, specifically the below:
  - Item Recommendation for a given user and context.
- Develop **generic functions** as much as possible so that those can be leveraged by **both/similar datasets** to recommend items.

Part 2: Movie recommendations using PySpark

Explore the **Apache Spark** Cluster Computing Framework by analyzing the **movielens** dataset. Provide recommendations using **MLLib [Apache Spark's Scalable machine learning library]**

Diagram Source: https://cwiki.apache.org/confluence/display/SPARK/PySpark+Internals