Week 6 Homework

1. Yelp data PCA. Complete Yelp Data Challenge code:
   "Yelp_Data_Challenge_Project/Yelp_Dataset_-_Clustering_and_PCA.ipynb"
   (only PCA part). Tasks:
   - Load, visualize data
   - Extract Tf-Idf feature vectors from review data
   - Perform PCA on review feature vectors
   - Visualize variance explained
   - Perform PCA review classification
   - Questions: Will PCA help improve performance? What is the disadvantage of PCA regression/classification?

2. Yelp recommender system. Complete Yelp Data Challenge code:
   "Yelp_Dataset_-_Restaurant_Recommender.ipynb". Tasks:
   - Prepare utility matrix
   - Use item-item collaborative filtering to build recommender system
   - Use matrix factorization to build recommender system