

Pig Latin and Hadoop File System (HDFS) to derive some statistics from **Yelp Dataset**.  
The dataset files are as follows and columns are separate using '::'

**business.csv.**

**review.csv.**

**user.csv.**

### **Dataset Description.**

The dataset comprises of **three** csv files, namely user.csv, business.csv and review.csv.

**Business.csv** file contain basic information about local businesses.

**Business.csv** file contains the following columns "business\_id"::"full\_address"::"categories"

'business\_id': (a unique identifier for the business)

'full\_address': (localized address),

'categories': [(localized category names)]

**review.csv** file contains the star rating given by a user to a business. Use user\_id to associate this review with others by the same user. Use business\_id to associate this review with others of the same business.

**review.csv** file contains the following columns "review\_id"::"user\_id"::"business\_id"::"stars"

'review\_id': (a unique identifier for the review)

'user\_id': (the identifier of the reviewed business),

'business\_id': (the identifier of the authoring user),

'stars': (star rating, integer 1-5),the rating given by the user to a business

**user.csv file** contains aggregate information about a single user across all of Yelp

**user.csv file** contains the following columns "user\_id"::"name"::"url"

user\_id': (unique user identifier),

'name': (first name, last initial, like 'Matt J. '), this column has been made anonymous to preserve privacy

'url': url of the user on yelp

**Write efficient Pig Latin program in to find the following information. Load the files in HDFS and read it in your Pig Latin program.**

**NB:**        :: is Column separator in the files.

### **Q1.**

List the business id , full address and categories of the **Top 10 businesses** located in **Palo Alto, CA** using the average ratings. This will require you to use review.csv and business.csv files.

Please answer the question by **calculating the average ratings** given to each business using the review.csv file. Do not use the already calculated ratings (average stars) contained in the business entity rows.

## Q2

List the business id , full address and categories of the **Top 10 businesses** located in **CA** but not in **Palo Alto, CA** using the average ratings. This will require you to use review.csv and business.csv files.

Please answer the question by **calculating the average ratings** given to each business using the review.csv file. Do not use the already calculated ratings (average stars) contained in the business entity rows.

## Q3:

Using Pig Latin script, Implement co-group command on business\_id for the datasets review and business. Print first 5 rows.

## Q4:

**List the 'user id' and 'rating' of users that reviewed businesses located in Stanford**

Required files are 'business' and 'review'. Print first 10 rows.