

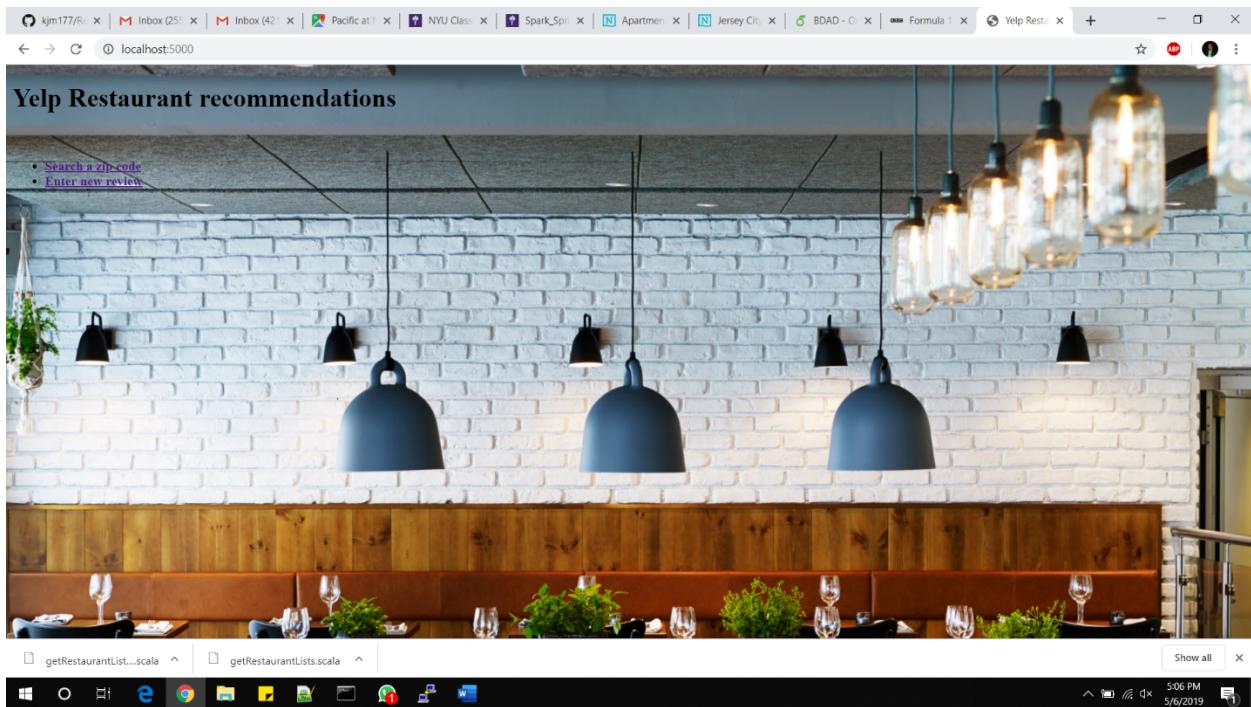
# BDAD – Final project screenshots

Kumar Mehta  
[kjm627@nyu.edu](mailto:kjm627@nyu.edu)

Yashvee Desai  
[ykd207@nyu.edu](mailto:ykd207@nyu.edu)

Front end running on local machine:

Main page:



Search restaurants in zipcode:

A screenshot of a web browser window titled "Yelp Restaurant recommendations". The page displays a search form with fields for "User ID:" and "Zipcode:", both currently empty. Below the form is a large, blurred photograph of a restaurant interior featuring a white brick wall, wooden paneling, and several hanging pendant lights. At the bottom of the page, there are two tabs: "getRestaurantList....scala" and "getRestaurantLists.scala". The browser's address bar shows the URL "localhost:5000/searchZipCode". The taskbar at the bottom of the screen includes icons for various applications like File Explorer, Google Chrome, and Microsoft Word.

Add new user review:

A screenshot of a web browser window titled "Yelp Restaurant recommendations". The page displays a form titled "Submit review" asking for a "New restaurant review:". The "User ID:" field contains "kjm177". The "Restaurant has code:" field contains "1234567890". The "Rating out of 5:" field contains "0". Below the form is a large, blurred photograph of a restaurant interior. At the bottom of the page, there are two tabs: "getRestaurantList....scala" and "getRestaurantLists.scala". The browser's address bar shows the URL "localhost:5000/newReview". The taskbar at the bottom of the screen includes icons for various applications like File Explorer, Google Chrome, and Microsoft Word.

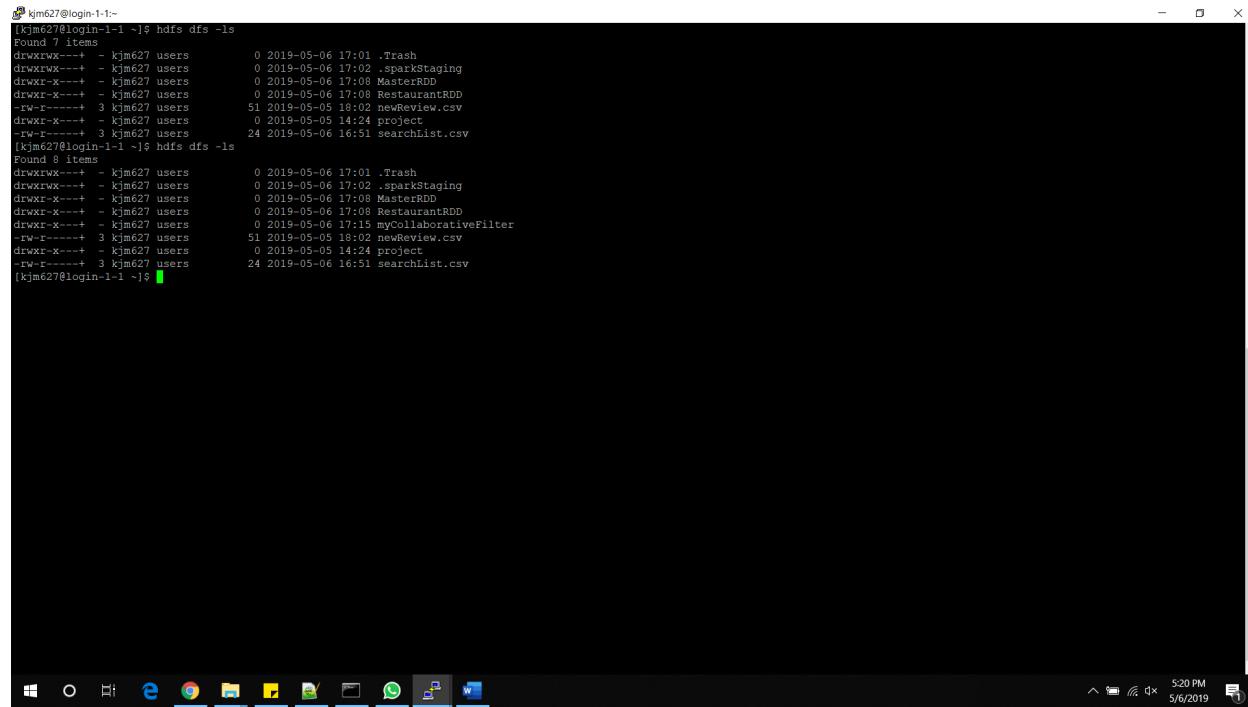
### Initial state of HDFS:

```
kjm627@login-2-1:~$ hdfs dfs -ls
Found 5 items
drwxrwx---+  - kjm627 users          0 2019-05-06 17:01 .Trash
drwxrwx---+  - kjm627 users          0 2019-05-06 16:55 .sparkStaging
-rw-r-----+  3 kjm627 users         51 2019-05-05 18:02 newReview.csv
drwxr-x---+  - kjm627 users          0 2019-05-05 14:24 project
-rw-r-----+  3 kjm627 users         24 2019-05-06 16:51 searchList.csv
(kjm627@login-2-1 ~)$
```

### HDFS after running data\_processing\_final.scala:

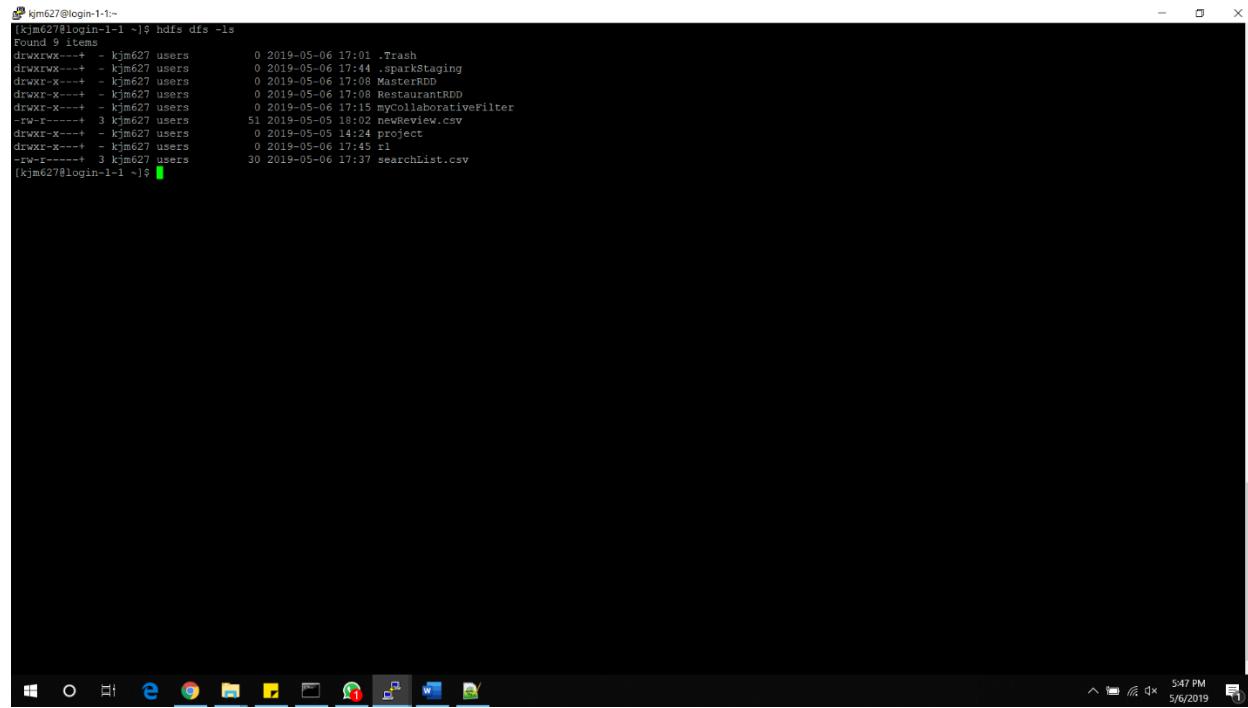
```
kjm627@login-1-1:~$ hdfs dfs -ls
Found 7 items
drwxrwx---+  - kjm627 users          0 2019-05-06 17:01 .Trash
drwxrwx---+  - kjm627 users          0 2019-05-06 17:02 .sparkStaging
drwxr-x---+  - kjm627 users          0 2019-05-06 17:08 MasterRDD
drwxr-x---+  - kjm627 users          0 2019-05-06 17:08 RestaurantRDD
-rw-r-----+  3 kjm627 users         51 2019-05-05 18:02 newReview.csv
drwxr-x---+  - kjm627 users          0 2019-05-05 14:24 project
-rw-r-----+  3 kjm627 users         24 2019-05-06 16:51 searchList.csv
(kjm627@login-1-1 ~)$
```

HDFS after running ALS\_CollaborativeFiltering.scala:



```
kjm627@login-1-1:~$ hdfs dfs -ls
Found 7 items
drwxrwx---+  kjm627 users      0 2019-05-06 17:01 .Trash
drwxrwx---+  kjm627 users      0 2019-05-06 17:02 .sparkStaging
drwxr-x---+  kjm627 users      0 2019-05-06 17:08 MasterRDD
drwxr-x---+  kjm627 users      0 2019-05-06 17:08 RestaurantRDD
-rw-r-----+ 3 kjm627 users    51 2019-05-05 18:02 newReview.csv
drwxr-x---+  kjm627 users      0 2019-05-05 14:24 project
-rw-r-----+ 3 kjm627 users    24 2019-05-06 16:51 searchList.csv
[kjm627@login-1-1 ~]$ hdfs dfs -ls
Found 8 items
drwxrwx---+  kjm627 users      0 2019-05-06 17:01 .Trash
drwxrwx---+  kjm627 users      0 2019-05-06 17:02 .sparkStaging
drwxr-x---+  kjm627 users      0 2019-05-06 17:08 MasterRDD
drwxr-x---+  kjm627 users      0 2019-05-06 17:08 RestaurantRDD
drwxr-x---+  kjm627 users      0 2019-05-06 17:15 myCollaborativeFilter
-rw-r-----+ 3 kjm627 users    51 2019-05-05 18:02 newReview.csv
drwxr-x---+  kjm627 users      0 2019-05-05 14:24 project
-rw-r-----+ 3 kjm627 users    24 2019-05-06 16:51 searchList.csv
[kjm627@login-1-1 ~]$
```

After running the getRestaurantLists.scala file:



```
kjm627@login-1-1:~$ hdfs dfs -ls
Found 9 items
drwxrwx---+  kjm627 users      0 2019-05-06 17:01 .Trash
drwxrwx---+  kjm627 users      0 2019-05-06 17:44 .sparkStaging
drwxr-x---+  kjm627 users      0 2019-05-06 17:08 MasterRDD
drwxr-x---+  kjm627 users      0 2019-05-06 17:08 RestaurantRDD
drwxr-x---+  kjm627 users      0 2019-05-06 17:15 myCollaborativeFilter
-rw-r-----+ 3 kjm627 users    51 2019-05-05 18:02 newReview.csv
drwxr-x---+  kjm627 users      0 2019-05-05 14:24 project
drwxr-x---+  kjm627 users      0 2019-05-06 17:48 RI
-rw-r-----+ 3 kjm627 users    30 2019-05-06 17:37 searchList.csv
[kjm627@login-1-1 ~]$
```

The downloaded CSV file with recommended restaurants and its details looks like:

A	B	C	D	E	F	G	H	I	J	K
restaurant_id	rating	business_id	restaurant_name	address	latitude	longitude	postal_code	review_count	restaurant_rating	cuisines
-1.257E+09	15.7776114	N3WQPXoVeCuzqyPiWWIX5Q	Las Vegas Lounge	900 Karen Av	36.141011	-115.143052	89109	16	3.5	Nightlife
6681845	14.3019567	ES9SowkyQSvVG-5LNTK-1A	Ec Water Store	2696 W Ann	36.2623265	-115.1780313	89031	28	5	Others
-1.721E+09	12.6327304	4nhQy38y-PnkY1qALNBTTeQ	Antonio's Italian Ristorante	The Rio; 370	36.175	-115.136389	89136	7	4.5	Italian
-525769298	15.201841	_J9_N626KzvwIEcho5y1w	Apostrophe Bar	692-916 Wes	36.11586681	-115.1767223	89109	6	4.5	Nightlife
-1.202E+09	13.005657	QvgkMzGOnKF6DW3GIADmA	Panda Windows & Doors	3415 Belling	36.2299295	-115.1026325	89030	13	3.5	Others
1063035121	13.0421381	oVCHZOfRKMsufvYlsdTDQ	The Spot Hookah Lounge	4850 W Flan	36.115877	-115.206447	89103	27	4.5	Nightlife
1751272936	20.4431692	HWEZJWSRzI8k5UA1Lqw7Fg	Runners		36.0357492	-115.1533426	89123	10	5	Others
-1.646E+09	13.8563158	V2SMSfCn448gWFuWQM5_A	La Michoacana Premier	4545 E Tropi	36.099854	-115.0747674	89121	5	5	Desserts
-1.154E+09	13.9313179	pnnqwZ3tFykRXs4tE7lcPqw	GNC	3663 Las Veg	36.11020638	-115.1716738	89109	8	4	Others
-704300425	13.947756	gFjHMjQXn5pbObxJupiuPA	Bar Charlie	The Palazzo	36.124423	-115.146372	89109	14	5	Japanese

After uploading the above file on tableau:

