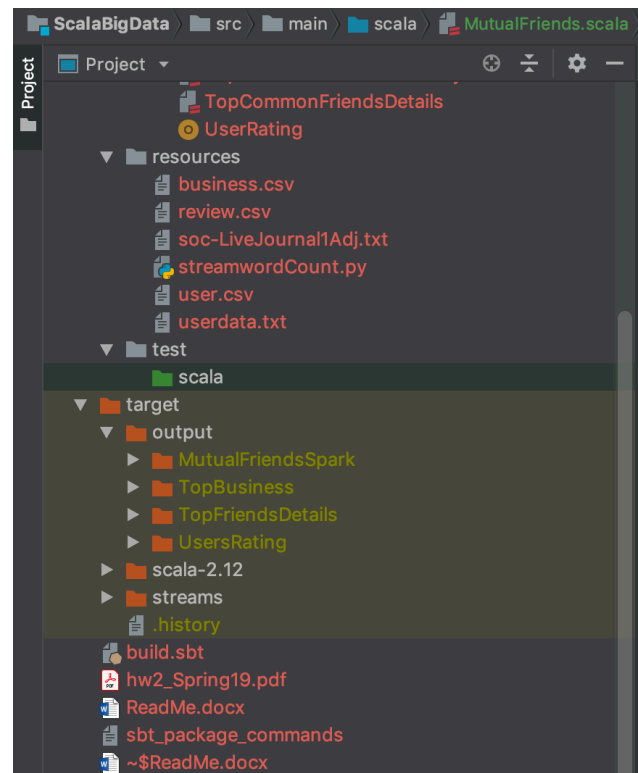
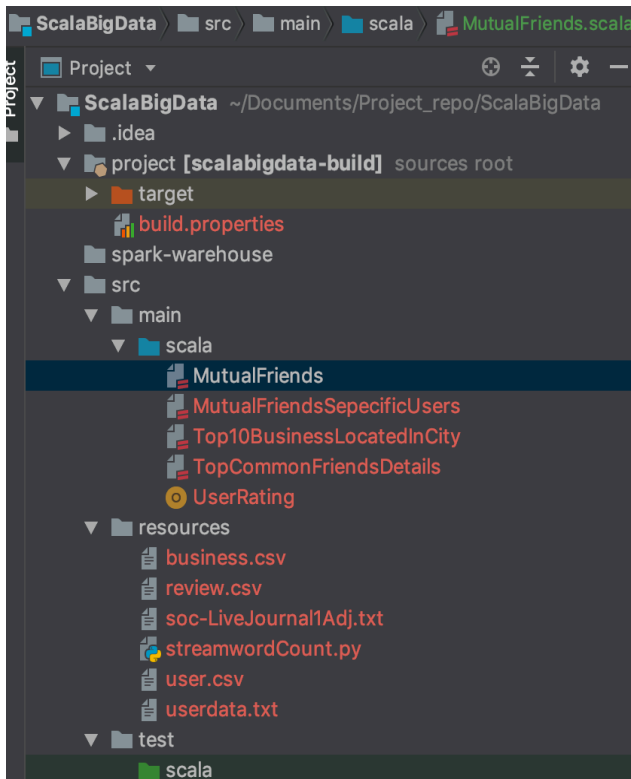


Social Network and Yelp Business Data Analysis :

Project details:

Jar file: scalabigdata_2.12-0.1.jar

The package contains project directory as specified in screenshot



Solutions are present in following files :->

Question1 : MutualFriends.scala

Question 2 : TopCommonFriends.scala

Question 3 : Top10BusinessLocatedInCity.scala

Question 4 : UserRating.scala

Each question has its own java file within the above-mentioned jar file.

1. Filename: MutualFriends.scala

Command to run the program:

File name: Spark-Shell Files/ MutualFriends.scala

To run: Save your soc-LiveJournal1Adj.txt in your local hdfs system in the folder “input”. And Run the code line by line in your spark-shell. To view output: Output will be displayed on console

To view the output: check file “mutualFriends.csv”

Output directory path : /output/MutualFriendsSpark/mutualFriends.csv

Sample Output For the following given pairs:

6986,41335	4
47299,47302	6
44416,44419	9
12549,42831	2
38678,38688	3
18676,18682	60
14065,34189	1
31056,31057	2
36927,37044	3
18963,36698	12
36806,37000	2
13557,13569	0
15610,15611	0
13834,45423	1
24115,26927	1
16176,47263	0
23704,32956	1
4550,4575	8
44291,44298	5
31763,31766	9
17441,31756	2
18702,18767	60
11015,32075	0
5823,25459	1
17785,27792	0
12401,27406	2
15302,38779	1
14982,16639	5
18385,42822	0
14230,34602	0
19450,19570	4
1506,17678	8

2. Filename: TopCommonFriends.scala

To view the output: check file "TopFriendsDetails.csv"

Output directory path : /output/TopFriendsDetails/mutualFriends.csv

Output For the following :

```
99 Arron Batz4301 Doe Meadow DriveRoger Salls 1144 Kinney Street
99 Bambi Villegas1329 Grove Avenue Amanda Turner 1164 Hewes Avenue
99 Charles Davis 2359 West Fork Drive Anthony Manley 258 Eastland Avenue
99 Gregory Won 1146 Meadow Drive Anthony Manley 258 Eastland Avenue
99 Gerald Wisner 4414 Cambridge Place Anthony Manley 258 Eastland Avenue
99 Thomas Hook1153 Sycamore Circle Amanda Degroot 1705 Upton Avenue
99 NolaJoyner 1872 Lyndon Street JaneIrish 582 Dogwood Road
99 William Carey 91 School Street JaneIrish 582 Dogwood Road
99 PaulMackenzie 4092 Marigold Lane PaulNguyen 471 Spring Street
99 Gregory Won 1146 Meadow Drive Gerald Wisner 4414 Cambridge
Place
```

3. Filename: Top10BusinessLocatedInCity.scala

To view the output: check file "Top10BusinessInNY.csv"

Output directory path : /output/TopBusiness/mutualFriends.csv

Output For the following :

```
business_id full_address categories average
WXx3gZnrIysGFnpGMCskwg 79 Vandenburg AveTroy, NY 12180 List(Shopping,
Drugstores) 5.0
1KWaczLXfDi9Z3urqlh_Yw 1080 Danby RdIthaca, NY 14850 List(Food, Bakeries,
Coffee & Tea, Cafes, Restaurants) 5.0
JfZY98Jopy80vYrXqKrF0Q 408 E Upland RdIthaca, NY 14850 List(Optometrists,
Health and Medical) 5.0
dkGTj5FVVqN4DbR7uWi8rw 128 E State StIthaca, NY 14850 List(Shopping,
Jewelry, Antiques) 5.0
nL6fL-kFpNSCrLdYM7qNZg 3066 BroadwayMorningside HeightsManhattan, NY 10027
List(Barbers, Beauty and Spas) 5.0
_ckbnVhwrD3vEowWVN8SnQ 119 S Cayuga St Ste 301Ithaca, NY 14850 List(Active
Life, Yoga, Fitness & Instruction) 5.0
JMqx87SPt0vt71MKniTz6Q 179 Graham RdSte FIthaca, NY 14850 List(Massage, Beauty
and Spas) 5.0
KNfrxyHr1oIGaRYAJK-W8Q 414 Elmira Rd#6155Ithaca, NY 14850 List(Hardware Stores,
Shopping, Home & Garden) 5.0
oBkgwRPRVa3Mnh9oP7C1oQ 3102 7th AveTroy, NY 12180 List(Automotive, Body
Shops, Towing) 5.0
5BM0cmJvxaFlFuh0L-b40w 217 N Greenbush RdTroy, NY 12180 List(Hardware Stores,
Shopping, Home & Garden) 5.0
```

4. Filename: UserRating.scala

To view the output: check file "users_average_rating.csv"

Output directory path : /output/UsersRating/mutualFriends.csv

Below is the output snapshot:

Output :

KK_hwlNU0oIIMFM33tczww	2.0
DyMuthKkxYdl2LL5h0tRJw	1.0
j0vBTs3g4sl-nFXp7zXEzw	3.0
1pp1jjHmw2Khlj0g0r-H7A	4.0
zqq8U-oz4IQtH-xTZoxtmw	5.0
2gJ0FifyABaEQ92uEKNQnQ	5.0
HKC-j6ShF_wUfB0q1BH5cw	3.0
fpMaUmBc2U5t0isT017VQw	4.0
SVans0JF-AgH4T65WF82CA	5.0
_K9sKlA4fVkWl4hyGSpOPA	4.0
j46QH7rV60lZ9sGLusS3Uw	2.0
TLTbtobx10vpK3rYP8-2sw	4.0
2WPS6dCSfx3PjqLKqlj0FQ	3.0
jyCoGta9NHZP5naYb6kedQ	3.0
9JdlfwAdVY0DR5rPU_4WPQ	4.0
RepbaM50pkimc95QNY8aPw	3.0
4Aj9NpdxnT5CHZnn95SlKA	2.0
Qqs0nylFFIefn65okipNww	5.0
cPLBdGuwEk0XzzIIc1zQMg	5.0
CXQmzlxUdLcwkejENv2txA	5.0
60RQMKnxhZPpUHKJ_rjrMg	5.0
1nuqhY2Z7sttekz-0MzwIg	5.0
Lpsb00v0EiC2iKGzbyHXNA	5.0
M0e5k4FmE4KKyc5kjSTUsw	4.0
FtxmuQGdxg9dAmhat08MzA	5.0
o0ML59F9CP600lPnqAo4Jg	3.0
Fk6pJP2Vv_MLe9N3nB2qTA	5.0
8cbCK3WfRw-S7GbM1DhksA	5.0
juzFEMz9lX7910qngNkSYw	5.0
0CqAmHUSWPEQdrnCbDiaVA	5.0
5ZhwDuvwhghCYFKTrH_kDA	5.0
CdJ1M_EJhcdG4Cul6Tc62w	5.0
QF0urZa-0bxga17ZeY-9lw	5.0
i80RiviNEHCbRRtmCMiITA	5.0