

Question 1:

Image collection and sentiment analysis based on the image tags using Instagram streaming (related to your project)

a. Training Datasets: Instagram Streaming/Categorized Image (e.g., Static UEC Food Dataset) and meta data

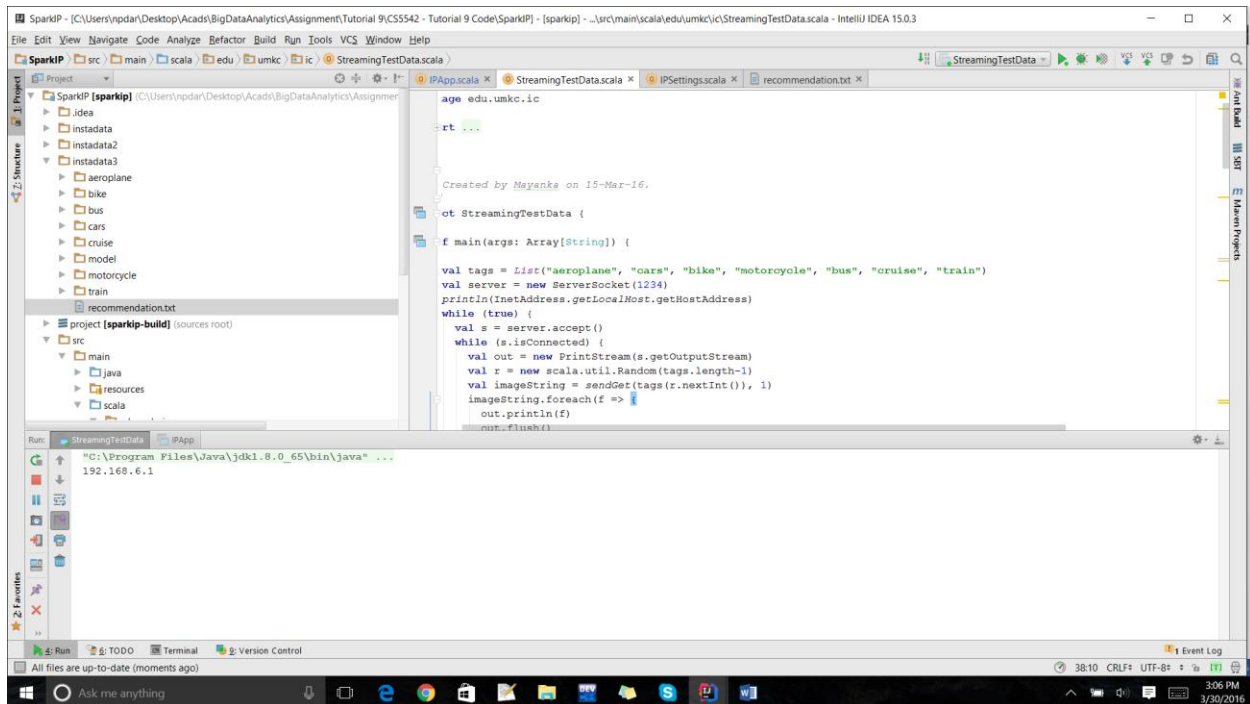
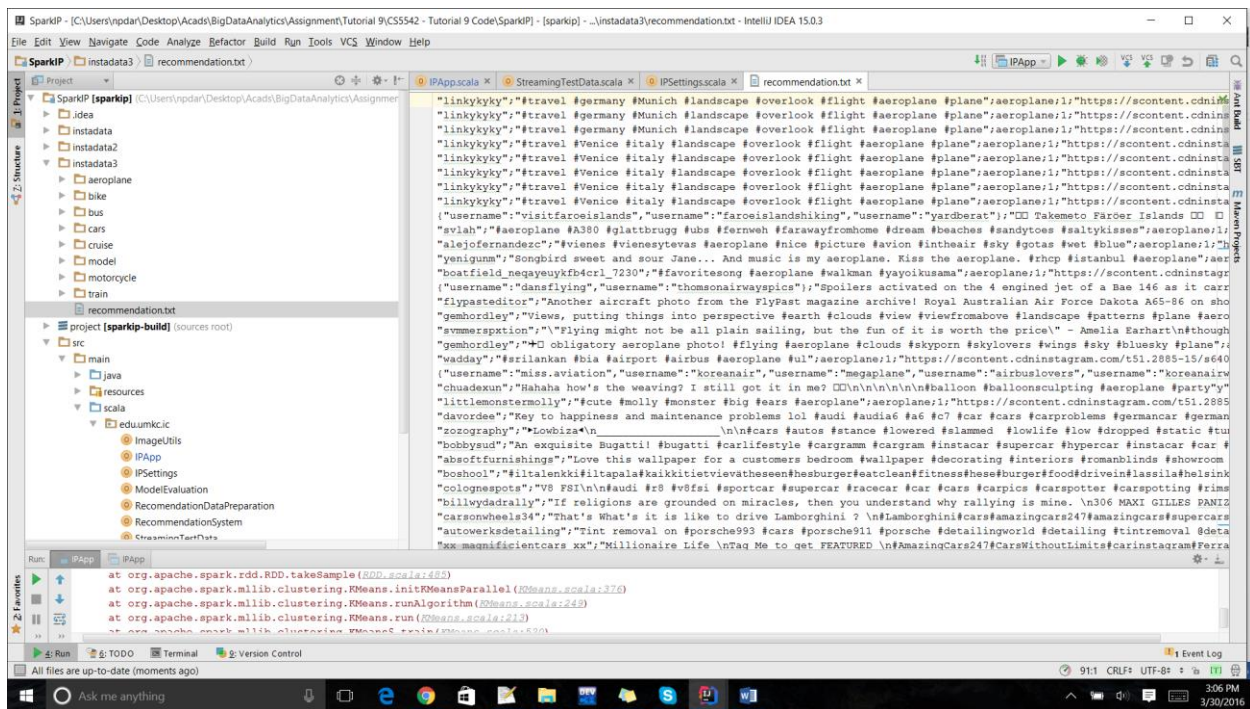
b. Testing Datasets e.g., Image, User Group, Category, Rating (Instagram streaming)

Training Data Sets

```
val s = server.accept()
while (s.isConnected) {
  val out = new PrintStream(s.getOutputStream)
  val r = new scala.util.Random(tags.length-1)
  val imageString = sendGet(tags(r.nextInt()), 1)
  imageString.foreach(f => {
    out.println(f)
    out.flush()
  })
  s.close()
}

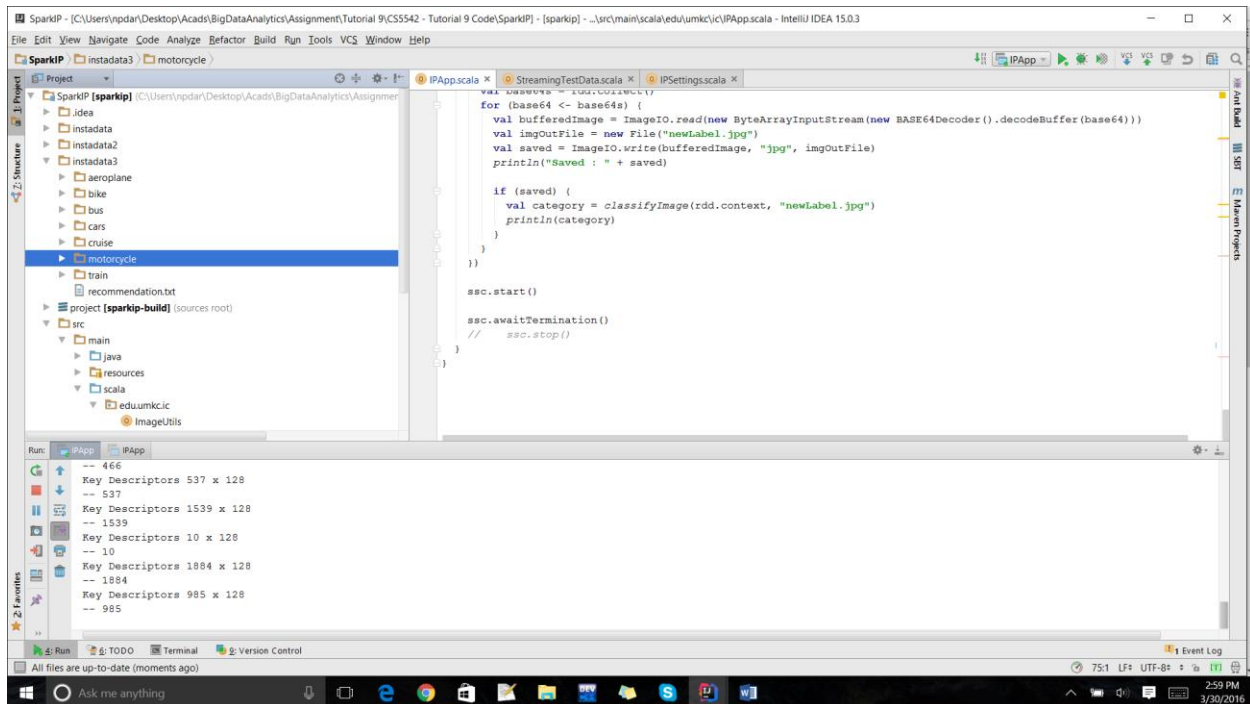
@throws(classOf[Exception])
private def sendGet(tag: String, tagId: Int): List[String] = {
  val url: String = "https://api.instagram.com/v1/tags/" + tag + "/media/recent?access_token=2242837681.1677ed0.40e41f5"
  val client: HttpClient = new DefaultHttpClient
  val request: HttpGet = new HttpGet(url)
  val response: HttpResponse = client.execute(request)
  println("\nSending 'GET' request to URL : " + url)
  println("Response Code : " + response.getStatusLine.getStatusCode)
  val rd: BufferedReader = new BufferedReader(new InputStreamReader(response.getEntity.getContent))
```

at org.apache.spark.rdd.PairRDDFunctions\$\$anonfun\$saveAsHadoopDataset\$1\$\$anonfun\$13.apply(PairRDDFunctions.scala:1193)
at org.apache.spark.rdd.PairRDDFunctions\$\$anonfun\$saveAsHadoopDataset\$1\$\$anonfun\$13.apply(PairRDDFunctions.scala:1185)
at org.apache.spark.scheduler.ResultTask.runTask(ResultTask.scala:66)
at org.apache.spark.scheduler.Task.run(Task.scala:89)
at org.apache.spark.executor.Executor\$TaskRunner.run(Executor.scala:213)
at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)
at java.util.concurrent.ThreadPoolExecutor\$Worker.run(ThreadPoolExecutor.java:617)
at java.lang.Thread.run(Thread.java:745)
16/03/30 15:01:11 INFO RemoteActorRefProvider\$RemotingTerminator: Shutting down remote daemon.
Process finished with exit code 1



Question 2:

Image Classification based on the categories related to your project

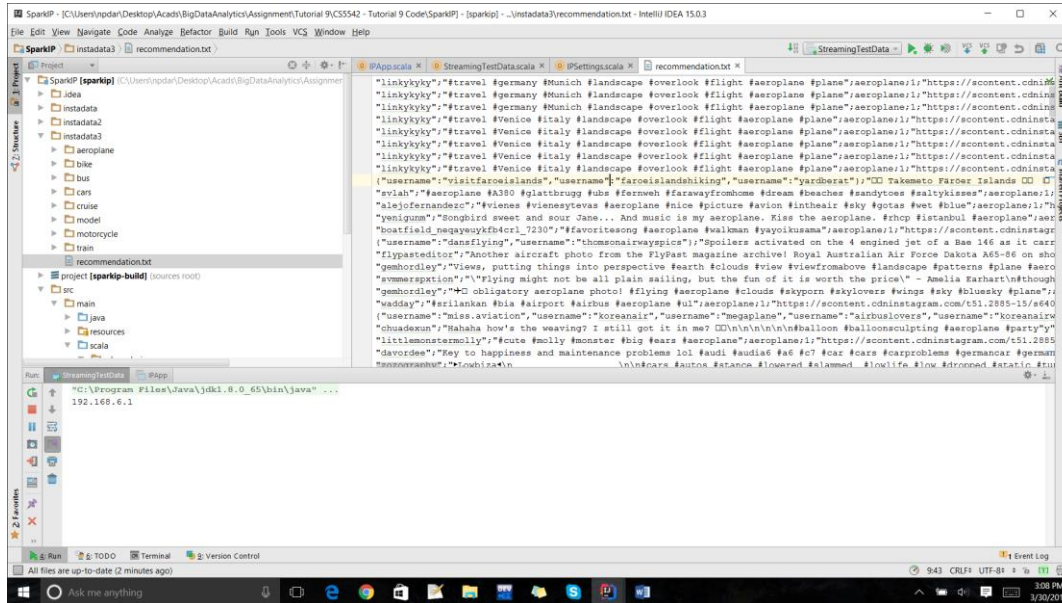


Question 3:

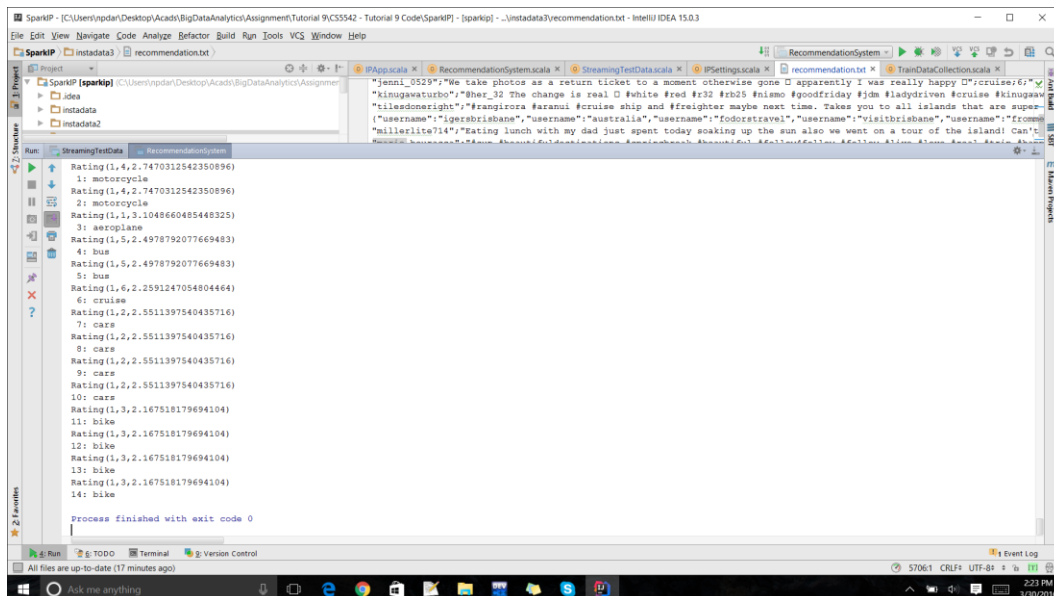
Image-based Recommendation system(related to your own project)

a. Rating based on sentiment analysis of Instagram metadata

b. Expected outcome is to make a recommendation based on user image input or profile (e.g., preferences, location, gender, age) **Key Descriptors – Feature Extraction**



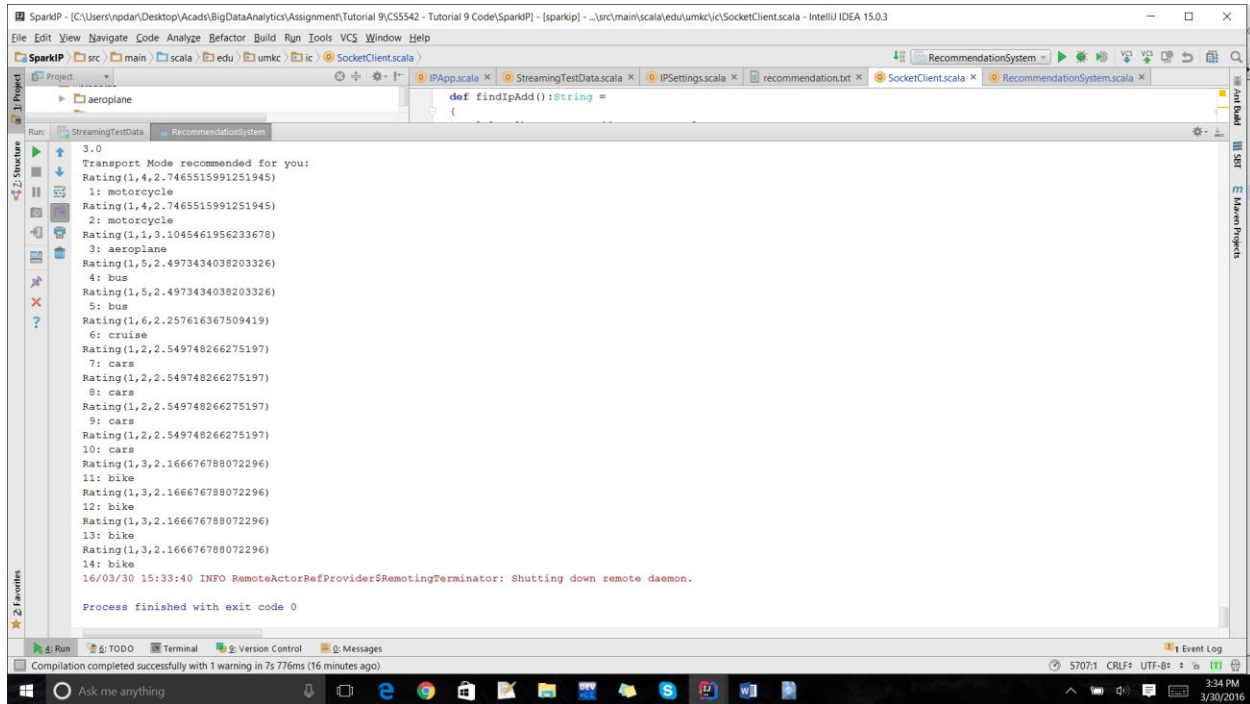
Recommendation System:



Question 5:

MobileRecommendationthrough smartphone/smartwatchusing your ML application

Recommendation Snapshot



The screenshot shows the IntelliJ IDEA IDE with a Spark application running. The output window displays the following text:

```
3.0
Transport Mode recommended for you:
Rating(1,4,2.7465515991251945)
1: motorcycle
Rating(1,4,2.7465515991251945)
2: motorcycle
Rating(1,1,3.1045461956233678)
3: aeroplane
Rating(1,5,2.4973434038203326)
4: bus
Rating(1,5,2.4973434038203326)
5: bus
Rating(1,6,2.257616367509419)
6: cruise
Rating(1,2,2.549748266275197)
7: cars
Rating(1,2,2.549748266275197)
8: cars
Rating(1,2,2.549748266275197)
9: cars
Rating(1,2,2.549748266275197)
10: cars
Rating(1,3,2.166676788072296)
11: bike
Rating(1,3,2.166676788072296)
12: bike
Rating(1,3,2.166676788072296)
13: bike
Rating(1,3,2.166676788072296)
14: bike
16/03/30 15:33:40 INFO RemoteActorRefProvider$RemotingTerminator: Shutting down remote daemon.

Process finished with exit code 0
```

The bottom status bar indicates: "Compilation completed successfully with 1 warning in 7s 776ms (16 minutes ago)". The system tray shows the time as 3:34 PM on 3/30/2016.

Notification about the recommendation to Mobile



69%



3:33 PM

Hello World!

NOTIFY WEARABLE

I'm waiting here: 1234

SiteLocalAddress: 10.151.0.180

#1 from /10.99.0.120:62190

Transport Mode recommended for you:User Id:
1363512652

2: motorcycle

replayed: Hello from Android, you are #1

#2 from /10.99.0.120:62191

Transport Mode recommended for you:User Id:
1363512652

3: motorcycle

replayed: Hello from Android, you are #2

#3 from /10.99.0.120:62192

Transport Mode recommended for you:User Id:
1363512652

4: aeroplane

replayed: Hello from Android, you are #3

#4 from /10.99.0.120:62193

Transport Mode recommended for you:User Id:
1363512652

5: bus

replayed: Hello from Android, you are #4

#5 from /10.99.0.120:62194

Transport Mode recommended for you:User Id:
1363512652

6: bus

replayed: Hello from Android, you are #5

#6 from /10.99.0.120:62195

Transport Mode recommended for you:User Id:
1363512652



69%



3:33 PM

Hello World!

NOTIFY WEARABLE

I'm waiting here: 1234

SiteLocalAddress: 10.151.0.180

10: cars

replayed: Hello from Android, you are #9

#10 from /10.99.0.120:62199

Transport Mode recommended for you:User Id:

1363512652

11: cars

replayed: Hello from Android, you are #10

#11 from /10.99.0.120:62200

Transport Mode recommended for you:User Id:

1363512652

12: bike

replayed: Hello from Android, you are #11

#12 from /10.99.0.120:62201

Transport Mode recommended for you:User Id:

1363512652

13: bike

replayed: Hello from Android, you are #12

#13 from /10.99.0.120:62202

Transport Mode recommended for you:User Id:

1363512652

14: bike

replayed: Hello from Android, you are #13

#14 from /10.99.0.120:62203

Transport Mode recommended for you:User Id:

1363512652

15: bike

replayed: Hello from Android, you are #14