Report for Lab 9

Shuchita Khandelwal(10), Anuja Sawant(25)

1)Sentimental analysis using twitter streaming (related to your project)

Description:

We have collected the tweet data for our project and performs Sentimental Analysis by using that data. The output is in the form like positive or negative is we have given the cases like from 0-very bad to 5-very good.

Screenshots:

```scala
val wc = stream.map(status => status.getText())


wc.foreachRDD(rdd => {
  val count = rdd.count().toInt
  val lines = rdd.take(count)

  lines.foreach(line=>{  val sentimentAnalyzer: SentimentAnalyzer = new SentimentAnalyzer
    val tweetWithSentiment: TweetWithSentiment = sentimentAnalyzer.findSentiment(line)
    System.out.println(tweetWithSentiment)
  }

)
  }
)
```
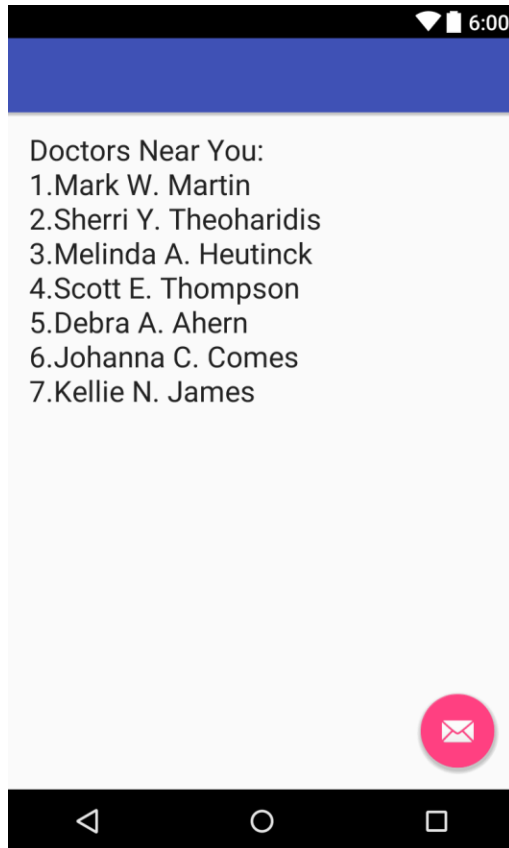
2) Make recommendations (related to your own project)

Description:

We are recommending the doctors for the users, according to the need and users rating. We take randomly 10 doctors, and recommended 10 of them based on their ratings.

Screenshots:

Doctors Near You:
1.Mark W. Martin
2.Sherri Y. Theoharidis
3.Melinda A. Heutinck
4.Scott E. Thompson
5.Debra A. Ahern
6.Johanna C. Comes
7.Kellie N. James

```scala
val ranks = List(8, 12)
val lambdas = List(0.1, 10.0)
val numIters = List(10, 20)
var bestModel: Option[MatrixFactorizationModel] = None
var bestValidationRmse = Double.MaxValue
var bestRank = 0
var bestLambda = -1.0
var bestNumIter = -1
for (rank <- ranks; lambda <- lambdas; numIter <- numIters) {
  val model = ALS.train(training, rank, numIter, lambda)
  val validationRmse = computeRmse(model, validation, numValidation)
  println("RMSE (validation) = " + validationRmse + " for the model trained with rank = "
    + rank + ", lambda = " + lambda + ", and numIter = " + numIter + ".")
  if (validationRmse < bestValidationRmse) {
    bestModel = Some(model)
    bestValidationRmse = validationRmse
    bestRank = rank
    bestLambda = lambda
    bestNumIter = numIter
  }
```

3) Twitter trend notification to smartphone/smartwatch

Screenshots:

line=RT @SouPositividade: Deus me disse baixinho: "Vai dar tudo certo" ???,
cssClass=sentiment : neutral
line=RT @LIV_Addict: Anfield https://t.co/brkBk3y57E, cssClass=sentiment :
neutral
line=RT @souljaaan: It's A Govard Thing. https://t.co/j15lcqyL2s,
cssClass=sentiment : neutral
line=RT @capricornio_hn: #CAPRICORNIO necesita desesperadamente que le
digan que es buen@, bell@, inteligente, trabajador/a...Tampoco pide mucho...,
cssClass=sentiment : positive
 cssClass=sentiment : positive
line=RT @mcuadra05: Al aire por @radiopanama 94.5 FM desde
@HootersPanama en Albrook https://t.co/M3SsdLOFya, cssClass=sentiment :
positive
line=RT @sesamestreet: Playing dress up is always fun! Help Grover's Chicken
friends try on new fashionable pieces! https://t.co/VLoJFZZbQw http...,
cssClass=sentiment : positive
line=RT @steripps: TTFH 2015/Yıllık Karı 57.696.046 Önceki Karı 9.889.926
/+Pozitif, cssClass=sentiment : negative
line=RT @jimmymwangyy254: #Politics101 @KoinangeJeff how on earth do you
insult our intelligence by having?? @CKirubi amongst @ItsPLOLumumba & ...,
cssClass=sentiment : negative
line=RT @ahmylttlemix: Nie wiem jak kyńegaess ale ja w wieku 20 lat
chcialabym robic cos ze swoim zyciem a nie siedziec i sie wyzywac na nasto...,
cssClass=sentiment : negative

4) Mobile Recommendation through smartphone/smartwatch using your ML application

Screenshots: