

# Report for Lab-Assignment7

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1.

## Question:

Sentimental analysis using twitter streaming

## 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 as we have given the cases like from 0-very negative to 5-very positive. There is elaborate explanation in Screenshots.

## Screenshots:

```
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)  
    })  
})  
}
```

```

TweetWithSentiment [line=RT @armsawit: เป็นการมอกเล็กแพนที่เหนือชั้นมาก https://t.co/G7WsOlVpFs, cssClass=sentiment : neut
Adding annotator ssplit
Adding annotator parse
Adding annotator sentiment
Adding annotator tokenize
TweetWithSentiment [line=ALWAYS IN A GOOD MOOD... KEEP SAFE GUYSSS!!, cssClass=sentiment : positive]
Adding annotator ssplit
Adding annotator parse
Adding annotator sentiment
Adding annotator tokenize
TweetWithSentiment [line=もうあいつのこと忘れて方がいいかも., cssClass=sentiment : neutral]
Adding annotator ssplit

```

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Question:

Make Recommendations for our Project and Sending through Smart Phone

Description:

For this question we recommended the famous doctors for the users, according to the users rating. We take randomly some 15 doctors , and recommended 10 of them based on their ratings.

Partitioning

```

val numPartitions = 4
val training = ratings.filter(x => x._1 < 6)
    .values
    .union(myRatingsRDD)
    .repartition(numPartitions)
    .cache()
val validation = ratings.filter(x => x._1 >= 6 && x._1 < 8)
    .values
    .repartition(numPartitions)
    .cache()
val test = ratings.filter(x => x._1 >= 8).values.cache()

val numTraining = training.count()
val numValidation = validation.count()
val numTest = test.count()

println("Training: " + numTraining + ", validation: " + numValidation + ", test: " + numTest)

```

## Training model on the Validation set

```
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
  }
}
```

## Recommendations screenshot:

- 1:Dr. Robert W. Biggs
- 2:Dr. James Mirabile
- 3:Dr. Luke O. Nichols
- 4:Dr. Rami Mortada
- 5:Dr. Clay A. Sligh
- 6:Dr. Kirk A. McCullough
- 7:Dr. K. Dean REEVES
- 8:Dr. Kenneth A. Jansson
- 9:Dr. Daniel S. Durrie
- 10:Dr. Stephanie V. Oberhelman



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## Question:

Twitter trend notification to smartphone / smartwatch

## Description:

We have sent the Twitter Trend Notification Using the Sentimental Analysis from the Question-1.

## Screenshot:

```
line=RT @SouPositividade: Deus me disse baixinho: "Vai dar tudo certo" ???,  
cssClass=sentiment : neutral  
line=RT @LIV_Addict: Arfield https://t.co/brkBk3y57E, cssClass=sentiment :  
neutral  
line=RT @souljaan: It's A Goyard Thing. https://t.co/j16lcqyL2s,  
cssClass=sentiment : neutral  
line=RT @capricornio_hn: #CAPRICORNIO necesita desesperadamente que le  
digan que es buen@, bell@, inteligente, trabajador/a... Tampoco pide macho...,  
cssClass=sentiment : positive  
cssClass=sentiment : positive  
line=RT @mcuadra05: Al aire por @radiopanama 94.5 FM desde  
@HcotersPanama 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: ITTFH 2015/Yillik Kari 57.696.046 Önceki Kari 9.889.926  
/+Pozitif, cssClass=sentiment : negative  
line=RT @jimmymwanggy254: #Politics101 @KoinangeJeff how on earth do you  
insult our intelligence by having?? @CKirubi amongst @ItsPLOLumumba & ...,  
cssClass=sentiment : negative  
line=RT @ahmylittlemix: Nie wiem jak kyieguess ale ja w wieku 20 lat  
chcialabym robic cos ze swoim zyciem a nie siedziec i sie wyzywac na nasto...,  
cssClass=sentiment : negative
```



