

```
val trainData = NewsGroupsDataLoader(sc, trainingDir)

val predictor = Trim andThen
  LowerCase() andThen
  Tokenizer() andThen
  NGramsFeaturizer(1 to conf.nGrams) andThen
  TermFrequency(x => 1) andThen
  (CommonSparseFeatures(conf.commonFeatures), trainData.data) andThen
  (NaiveBayesEstimator(numClasses), trainData.data, trainData.labels) andThen
  MaxClassifier
```