Week 10 Exercises

Aaron Palumbo

October 27, 2015

Contents

7.6.1 (Section 7.6.7)

Execute the BDMO Algorightm with $p = 3$ on the following 1-dimensional, Euclidean data:

$$1, 45, 80, 24, 56, 71, 17, 40, 66, 32, 48, 96, 9, 41, 75, 11, 58, 93, 28, 39, 77$$

The clustering algorithms is k-means with $k = 3$. Only the centroid of a cluster, along with its count, is needed to represent a cluster.

```r
# ######### #
# Functions #
# ######### #

source("clustering_library.R")
```

```
##
## Attaching package: 'dplyr'
##
## The following objects are masked from 'package:stats':
##
##     filter, lag
##
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```r
# ### #
# Run #
# ### #

x <- c( 1, 45, 80,
       24, 56, 71, 17, 40, 66,
       32, 48, 96,  9, 41, 75, 11, 58, 93, 28, 39, 77)

records <- data.frame(x=x)

p <- 3
k <- 3

records <- data.frame(x=x)
buckets <- initBuckets(records, 3, 2)
```