K-means Pseudo Code

**function** k-means(*data, k*)

// initialize centroids randomly

**var** *int*num\_observations = data.size()

**var** *float* centroids[num\_observations]

get\_rand\_centroids(centroids, k)

// initialize book keeping vars

**var** *int* iterations

**var** *float* old\_centroids[num\_observations]

//k-means loop

**while** (centroids != old\_centroids AND iterations < MAX\_ITERATIONS)

old\_centroids = centroids

iterations += 1

**var** *float* labels[num\_observations]

**for**(i=0, i<num\_obersvations, i+=1)

labels[i] *=* nearest\_centroid(data[i],centroids)

centroids = update\_centroids(data, labels, k)

**return** centroids