FUNCTION map(key, object)
  int i = 0
  FOR a IN v.attributes:
    COLLECT(object.c + "_A" + i, v.a)
    i++
  COLLECT("target " + object.c, 1) # class distribution

FUNCTION reduce(key, values):
  IF key.startsWith("target "): # reduce class dist keys
    sum = 0
    FOR v IN values:
      sum += v
    COLLECT(key,sum)
  ELSE # reduce attribute/class keys
    sum=0
    sumSq = 0
    count = 0
    FOR v IN values:
      sum += v
      sumSq += v*v
      count++
    mean = sum/count
    COLLECT(key + ",_mean", mean)
    COLLECT(key + ",_stddev", sqrt(abs(sumSq -mean*sum) / count))