package com.twitter.search.common.relevance.text;

public class VisibleTokenRatioNormalizer {

private static final int NORMALIZE\_TO\_BITS = 4;

private final int normalizeToSize;

/\*\*

\* constructor

\*/

public VisibleTokenRatioNormalizer(int normalizeToBits) {

int size = 2 << (normalizeToBits - 1);

// Let's say normalizeSize is set to 16....

// If you multiply 1.0 \* 16, it is 16

// If you multiply 0.0 \* 16, it is 0

// That would be occupying 17 ints, not 16, so we subtract 1 here...

this.normalizeToSize = size - 1;

}

/\*\*

\* method

\*/

public int normalize(double percent) {

if (percent > 1 || percent < 0) {

throw new IllegalArgumentException("percent should be less than 1 and greater than 0");

}

int bucket = (int) (percent \* normalizeToSize);

return normalizeToSize - bucket;

}

public double denormalize(int reverseBucket) {

int bucket = normalizeToSize - reverseBucket;

return bucket / (double) normalizeToSize;

}

public static VisibleTokenRatioNormalizer createInstance() {

return new VisibleTokenRatioNormalizer(NORMALIZE\_TO\_BITS);

}

}