package com.twitter.search.core.earlybird.index.column;

import com.twitter.search.common.encoding.features.IntegerEncodedFeatures;

import com.twitter.search.common.schema.base.FeatureConfiguration;

import com.twitter.search.common.schema.base.Schema;

import com.twitter.search.core.earlybird.index.DocIDToTweetIDMapper;

/\*\*

\* An Int CSF view on top of an {@link AbstractColumnStrideMultiIntIndex}.

\*

\* Used for decoding encoded packed features and exposing them as

\* {@link org.apache.lucene.index.NumericDocValues}.

\*/

public class ColumnStrideIntViewIndex extends ColumnStrideFieldIndex {

private static class IntViewIntegerEncodedFeatures extends IntegerEncodedFeatures {

private final AbstractColumnStrideMultiIntIndex baseIndex;

private final int docID;

public IntViewIntegerEncodedFeatures(AbstractColumnStrideMultiIntIndex baseIndex, int docID) {

this.baseIndex = baseIndex;

this.docID = docID;

}

@Override

public int getInt(int pos) {

return baseIndex.get(docID, pos);

}

@Override

public void setInt(int pos, int value) {

baseIndex.setValue(docID, pos, value);

}

@Override

public int getNumInts() {

return baseIndex.getNumIntsPerField();

}

}

private final AbstractColumnStrideMultiIntIndex baseIndex;

private final FeatureConfiguration featureConfiguration;

/\*\*

\* Creates a new ColumnStrideIntViewIndex on top of an existing AbstractColumnStrideMultiIntIndex.

\*/

public ColumnStrideIntViewIndex(Schema.FieldInfo info,

AbstractColumnStrideMultiIntIndex baseIndex) {

super(info.getName());

this.baseIndex = baseIndex;

this.featureConfiguration = info.getFieldType().getCsfViewFeatureConfiguration();

}

@Override

public long get(int docID) {

IntegerEncodedFeatures encodedFeatures = new IntViewIntegerEncodedFeatures(baseIndex, docID);

return encodedFeatures.getFeatureValue(featureConfiguration);

}

@Override

public void setValue(int docID, long value) {

IntegerEncodedFeatures encodedFeatures = new IntViewIntegerEncodedFeatures(baseIndex, docID);

encodedFeatures.setFeatureValue(featureConfiguration, (int) value);

}

@Override

public ColumnStrideFieldIndex optimize(

DocIDToTweetIDMapper originalTweetIdMapper, DocIDToTweetIDMapper optimizedTweetIdMapper) {

throw new UnsupportedOperationException(

"ColumnStrideIntViewIndex instances do not support optimization");

}

}