/\* ----------------------------------------------------------------------------

\* This file was automatically generated by SWIG (http://www.swig.org).

\* Version 4.0.2

\*

\* Do not make changes to this file unless you know what you are doing--modify

\* the SWIG interface file instead.

\* ----------------------------------------------------------------------------- \*/

package com.twitter.ann.faiss;

public class IndexIVFPQ extends IndexIVF {

private transient long swigCPtr;

protected IndexIVFPQ(long cPtr, boolean cMemoryOwn) {

super(swigfaissJNI.IndexIVFPQ\_SWIGUpcast(cPtr), cMemoryOwn);

swigCPtr = cPtr;

}

protected static long getCPtr(IndexIVFPQ obj) {

return (obj == null) ? 0 : obj.swigCPtr;

}

@SuppressWarnings("deprecation")

protected void finalize() {

delete();

}

public synchronized void delete() {

if (swigCPtr != 0) {

if (swigCMemOwn) {

swigCMemOwn = false;

swigfaissJNI.delete\_IndexIVFPQ(swigCPtr);

}

swigCPtr = 0;

}

super.delete();

}

public void setBy\_residual(boolean value) {

swigfaissJNI.IndexIVFPQ\_by\_residual\_set(swigCPtr, this, value);

}

public boolean getBy\_residual() {

return swigfaissJNI.IndexIVFPQ\_by\_residual\_get(swigCPtr, this);

}

public void setPq(ProductQuantizer value) {

swigfaissJNI.IndexIVFPQ\_pq\_set(swigCPtr, this, ProductQuantizer.getCPtr(value), value);

}

public ProductQuantizer getPq() {

long cPtr = swigfaissJNI.IndexIVFPQ\_pq\_get(swigCPtr, this);

return (cPtr == 0) ? null : new ProductQuantizer(cPtr, false);

}

public void setDo\_polysemous\_training(boolean value) {

swigfaissJNI.IndexIVFPQ\_do\_polysemous\_training\_set(swigCPtr, this, value);

}

public boolean getDo\_polysemous\_training() {

return swigfaissJNI.IndexIVFPQ\_do\_polysemous\_training\_get(swigCPtr, this);

}

public void setPolysemous\_training(PolysemousTraining value) {

swigfaissJNI.IndexIVFPQ\_polysemous\_training\_set(swigCPtr, this, PolysemousTraining.getCPtr(value), value);

}

public PolysemousTraining getPolysemous\_training() {

long cPtr = swigfaissJNI.IndexIVFPQ\_polysemous\_training\_get(swigCPtr, this);

return (cPtr == 0) ? null : new PolysemousTraining(cPtr, false);

}

public void setScan\_table\_threshold(long value) {

swigfaissJNI.IndexIVFPQ\_scan\_table\_threshold\_set(swigCPtr, this, value);

}

public long getScan\_table\_threshold() {

return swigfaissJNI.IndexIVFPQ\_scan\_table\_threshold\_get(swigCPtr, this);

}

public void setPolysemous\_ht(int value) {

swigfaissJNI.IndexIVFPQ\_polysemous\_ht\_set(swigCPtr, this, value);

}

public int getPolysemous\_ht() {

return swigfaissJNI.IndexIVFPQ\_polysemous\_ht\_get(swigCPtr, this);

}

public void setUse\_precomputed\_table(int value) {

swigfaissJNI.IndexIVFPQ\_use\_precomputed\_table\_set(swigCPtr, this, value);

}

public int getUse\_precomputed\_table() {

return swigfaissJNI.IndexIVFPQ\_use\_precomputed\_table\_get(swigCPtr, this);

}

public void setPrecomputed\_table(SWIGTYPE\_p\_AlignedTableT\_float\_t value) {

swigfaissJNI.IndexIVFPQ\_precomputed\_table\_set(swigCPtr, this, SWIGTYPE\_p\_AlignedTableT\_float\_t.getCPtr(value));

}

public SWIGTYPE\_p\_AlignedTableT\_float\_t getPrecomputed\_table() {

return new SWIGTYPE\_p\_AlignedTableT\_float\_t(swigfaissJNI.IndexIVFPQ\_precomputed\_table\_get(swigCPtr, this), true);

}

public IndexIVFPQ(Index quantizer, long d, long nlist, long M, long nbits\_per\_idx, MetricType metric) {

this(swigfaissJNI.new\_IndexIVFPQ\_\_SWIG\_0(Index.getCPtr(quantizer), quantizer, d, nlist, M, nbits\_per\_idx, metric.swigValue()), true);

}

public IndexIVFPQ(Index quantizer, long d, long nlist, long M, long nbits\_per\_idx) {

this(swigfaissJNI.new\_IndexIVFPQ\_\_SWIG\_1(Index.getCPtr(quantizer), quantizer, d, nlist, M, nbits\_per\_idx), true);

}

public void encode\_vectors(long n, SWIGTYPE\_p\_float x, LongVector list\_nos, SWIGTYPE\_p\_unsigned\_char codes, boolean include\_listnos) {

swigfaissJNI.IndexIVFPQ\_encode\_vectors\_\_SWIG\_0(swigCPtr, this, n, SWIGTYPE\_p\_float.getCPtr(x), SWIGTYPE\_p\_long\_long.getCPtr(list\_nos.data()), list\_nos, SWIGTYPE\_p\_unsigned\_char.getCPtr(codes), include\_listnos);

}

public void encode\_vectors(long n, SWIGTYPE\_p\_float x, LongVector list\_nos, SWIGTYPE\_p\_unsigned\_char codes) {

swigfaissJNI.IndexIVFPQ\_encode\_vectors\_\_SWIG\_1(swigCPtr, this, n, SWIGTYPE\_p\_float.getCPtr(x), SWIGTYPE\_p\_long\_long.getCPtr(list\_nos.data()), list\_nos, SWIGTYPE\_p\_unsigned\_char.getCPtr(codes));

}

public void sa\_decode(long n, SWIGTYPE\_p\_unsigned\_char bytes, SWIGTYPE\_p\_float x) {

swigfaissJNI.IndexIVFPQ\_sa\_decode(swigCPtr, this, n, SWIGTYPE\_p\_unsigned\_char.getCPtr(bytes), SWIGTYPE\_p\_float.getCPtr(x));

}

public void add\_core(long n, SWIGTYPE\_p\_float x, LongVector xids, LongVector precomputed\_idx) {

swigfaissJNI.IndexIVFPQ\_add\_core(swigCPtr, this, n, SWIGTYPE\_p\_float.getCPtr(x), SWIGTYPE\_p\_long\_long.getCPtr(xids.data()), xids, SWIGTYPE\_p\_long\_long.getCPtr(precomputed\_idx.data()), precomputed\_idx);

}

public void add\_core\_o(long n, SWIGTYPE\_p\_float x, LongVector xids, SWIGTYPE\_p\_float residuals\_2, LongVector precomputed\_idx) {

swigfaissJNI.IndexIVFPQ\_add\_core\_o\_\_SWIG\_0(swigCPtr, this, n, SWIGTYPE\_p\_float.getCPtr(x), SWIGTYPE\_p\_long\_long.getCPtr(xids.data()), xids, SWIGTYPE\_p\_float.getCPtr(residuals\_2), SWIGTYPE\_p\_long\_long.getCPtr(precomputed\_idx.data()), precomputed\_idx);

}

public void add\_core\_o(long n, SWIGTYPE\_p\_float x, LongVector xids, SWIGTYPE\_p\_float residuals\_2) {

swigfaissJNI.IndexIVFPQ\_add\_core\_o\_\_SWIG\_1(swigCPtr, this, n, SWIGTYPE\_p\_float.getCPtr(x), SWIGTYPE\_p\_long\_long.getCPtr(xids.data()), xids, SWIGTYPE\_p\_float.getCPtr(residuals\_2));

}

public void train\_residual(long n, SWIGTYPE\_p\_float x) {

swigfaissJNI.IndexIVFPQ\_train\_residual(swigCPtr, this, n, SWIGTYPE\_p\_float.getCPtr(x));

}

public void train\_residual\_o(long n, SWIGTYPE\_p\_float x, SWIGTYPE\_p\_float residuals\_2) {

swigfaissJNI.IndexIVFPQ\_train\_residual\_o(swigCPtr, this, n, SWIGTYPE\_p\_float.getCPtr(x), SWIGTYPE\_p\_float.getCPtr(residuals\_2));

}

public void reconstruct\_from\_offset(long list\_no, long offset, SWIGTYPE\_p\_float recons) {

swigfaissJNI.IndexIVFPQ\_reconstruct\_from\_offset(swigCPtr, this, list\_no, offset, SWIGTYPE\_p\_float.getCPtr(recons));

}

public long find\_duplicates(LongVector ids, SWIGTYPE\_p\_unsigned\_long lims) {

return swigfaissJNI.IndexIVFPQ\_find\_duplicates(swigCPtr, this, SWIGTYPE\_p\_long\_long.getCPtr(ids.data()), ids, SWIGTYPE\_p\_unsigned\_long.getCPtr(lims));

}

public void encode(long key, SWIGTYPE\_p\_float x, SWIGTYPE\_p\_unsigned\_char code) {

swigfaissJNI.IndexIVFPQ\_encode(swigCPtr, this, key, SWIGTYPE\_p\_float.getCPtr(x), SWIGTYPE\_p\_unsigned\_char.getCPtr(code));

}

public void encode\_multiple(long n, LongVector keys, SWIGTYPE\_p\_float x, SWIGTYPE\_p\_unsigned\_char codes, boolean compute\_keys) {

swigfaissJNI.IndexIVFPQ\_encode\_multiple\_\_SWIG\_0(swigCPtr, this, n, SWIGTYPE\_p\_long\_long.getCPtr(keys.data()), keys, SWIGTYPE\_p\_float.getCPtr(x), SWIGTYPE\_p\_unsigned\_char.getCPtr(codes), compute\_keys);

}

public void encode\_multiple(long n, LongVector keys, SWIGTYPE\_p\_float x, SWIGTYPE\_p\_unsigned\_char codes) {

swigfaissJNI.IndexIVFPQ\_encode\_multiple\_\_SWIG\_1(swigCPtr, this, n, SWIGTYPE\_p\_long\_long.getCPtr(keys.data()), keys, SWIGTYPE\_p\_float.getCPtr(x), SWIGTYPE\_p\_unsigned\_char.getCPtr(codes));

}

public void decode\_multiple(long n, LongVector keys, SWIGTYPE\_p\_unsigned\_char xcodes, SWIGTYPE\_p\_float x) {

swigfaissJNI.IndexIVFPQ\_decode\_multiple(swigCPtr, this, n, SWIGTYPE\_p\_long\_long.getCPtr(keys.data()), keys, SWIGTYPE\_p\_unsigned\_char.getCPtr(xcodes), SWIGTYPE\_p\_float.getCPtr(x));

}

public SWIGTYPE\_p\_faiss\_\_InvertedListScanner get\_InvertedListScanner(boolean store\_pairs) {

long cPtr = swigfaissJNI.IndexIVFPQ\_get\_InvertedListScanner(swigCPtr, this, store\_pairs);

return (cPtr == 0) ? null : new SWIGTYPE\_p\_faiss\_\_InvertedListScanner(cPtr, false);

}

public void precompute\_table() {

swigfaissJNI.IndexIVFPQ\_precompute\_table(swigCPtr, this);

}

public IndexIVFPQ() {

this(swigfaissJNI.new\_IndexIVFPQ\_\_SWIG\_2(), true);

}

}