

# MapReduce on HBase

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# MapReduce on Hbase



1. 可以使用Mapreduce的方法操作hbase数据库
2. Hadoop Mapreduce提供相关API，可以与hbase数据库无缝连接
3. API link: <http://hbase.apache.org/devapidocs/index.html>

# 相关类

Hbase MapReduce	Hadoop MapReduce
org.apache.hadoop.hbase.mapreduce.TableMapper	org.apache.hadoop.mapreduce.Mapper
org.apache.hadoop.hbase.mapreduce.TableReducer	org.apache.hadoop.mapreduce.Reducer
org.apache.hadoop.hbase.mapreduce.TableInputFormat	org.apache.hadoop.mapreduce.InputFormat
org.apache.hadoop.hbase.mapreduce.TableOutputFormat	org.apache.hadoop.mapreduce.OutputFormat

# 相关类

## Class TableMapper<KEYOUT,VALUEOUT>

java.lang.Object

org.apache.hadoop.mapreduce.Mapper<ImmutableBytesWritable,Result,KEYOUT,VALUEOUT>

org.apache.hadoop.hbase.mapreduce.TableMapper<KEYOUT,VALUEOUT>

### Type Parameters:

KEYOUT - The type of the key.

VALUEOUT - The type of the value.

### Direct Known Subclasses:

GroupingTableMapper, IdentityTableMapper, Import.Importer, Import.KeyValueImporter, MultithreadedTableMapper, VerifyReplication.Verifier

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@InterfaceAudience.Public

@InterfaceStability.Stable

public abstract class **TableMapper**<KEYOUT, VALUEOUT>

extends org.apache.hadoop.mapreduce.Mapper<ImmutableBytesWritable, Result, KEYOUT, VALUEOUT>

Extends the base `Mapper` class to add the required input key and value classes.

# 相关类

## Class TableReducer<KEYIN,VALUEIN,KEYOUT>

java.lang.Object

org.apache.hadoop.mapreduce.Reducer<KEYIN,VALUEIN,KEYOUT,Mutation>

org.apache.hadoop.hbase.mapreduce.TableReducer<KEYIN,VALUEIN,KEYOUT>

### Type Parameters:

**KEYIN** - The type of the input key.

**VALUEIN** - The type of the input value.

**KEYOUT** - The type of the output key.

### Direct Known Subclasses:

IdentityTableReducer

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@InterfaceAudience.Public

@InterfaceStability.Stable

public abstract class **TableReducer**<**KEYIN**, **VALUEIN**, **KEYOUT**>

extends org.apache.hadoop.mapreduce.Reducer<KEYIN, VALUEIN, KEYOUT, Mutation>

Extends the basic `Reducer` class to add the required key and value input/output classes. While the input key and value as well as the output key can be anything handed in from the previous map phase the output value must be either a `Put` or a `Delete` instance when using the `TableOutputFormat` class.

This class is extended by `IdentityTableReducer` but can also be subclassed to implement similar features or any custom code needed. It has the advantage to enforce the output value to a specific basic type.