#### Hbase作业

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```

# 集群环境

```
CentOS Linux release 8.3.2011
Hadoop 3.1.3
Zookeeper 3.4.6
Hbase 2.1.0
java version "1.8.0_291"
```

## POM文件

```
<maven.compiler.target>8</maven.compiler.target>
       <hadoop.version>3.0.0</hadoop.version>
       <hbase.version>2.1.0</hbase.version>
       <junit.version>4.13</junit.version>
       <lombok.version>1.18.10</lombok.version>
   </properties>
    <dependencies>
       <dependency>
           <groupId>org.apache.hbase
           <artifactId>hbase-client</artifactId>
           <version>${hbase.version}</version>
       </dependency>
       <dependency>
           <groupId>org.projectlombok</groupId>
           <artifactId>lombok</artifactId>
           <version>${lombok.version}</version>
       </dependency>
       <dependency>
           <groupId>junit
           <artifactId>junit</artifactId>
           <version>${junit.version}</version>
       </dependency>
   </dependencies>
</project>
```

# 表结构设计

name	info		score	
	student_id	class	understanding	programming
Tom	20210000000001	1	75	82
Jerry	20210000000002	1	85	67
Jack	20210000000003	2	80	80
Rose	20210000000004	2	60	61
\$your_name	\$your_student_id			

针对给出的表结构设计, 改造成了下列结构

表空间	表名	rowkey	列族info	列族score
wanghuan	student	student_id	name,student_id,class	understanding,programming

# 测试数据文件

src/main/resources/infodata.txt

```
Tom 20210000000001 1 75 82

Jerry 20210000000002 1 85 67

Jack 20210000000003 2 80 80

Rose 20210000000004 2 60 61

wanghuan G20210579030073 1 90 90
```

### 创建表

```
hbase(main):005:0> list
TABLE
wanghuan:student
1 row(s)
Took 0.0198 seconds
=> ["wanghuan:student"]
hbase(main):006:0> desc 'wanghuan:student'
Table wanghuan:student is ENABLED
wanghuan:student
COLUNN FAMILIES DESCRIPTION
{NAME => 'info', VERSIONS => '5', EVICT BLOCKS ON CLOSE => 'false', NEW VERSION BEHAVIOR => 'false', KEEP_DELETED_CELLS => 'FALSE', CACHE_DATA_
ON_WRITE => 'false', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', MIN_VERSIONS => '0', REPLICATION_SCOPE => '0', BLOOMFILTER => 'row', CACHE
E INDEX_ON_WRITE => 'false', IN_MEMORY => 'false', CACHE_BLOOMS_ON_WRITE => 'false', PREFETCH_BLOCKS_ON_OPEN => 'false', COMPRESSION => 'NONE',
BLOCKCACHE => 'true', BLOCKSIZE => '65536'}
(NAME => 'score', VERSIONS => '5', EVICT_BLOCKS_ON_CLOSE => 'false', NEW_VERSION BEHAVIOR => 'false', KEEP_DELETED_CELLS => 'FALSE', CACHE_DATA_
ON_WRITE => 'false', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', MIN_VERSION BEHAVIOR => 'false', KEEP_DELETED_CELLS => 'FALSE', CACHE_DATA_
ON_WRITE => 'false', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', MIN_VERSIONS => '0', REPLICATION_SCOPE => '0', BLOOMFILTER => 'ROW', CACHE_DATA_ON_WRITE => 'false', NEW_VERSION_BEHAVIOR => 'false', NEW_VERSION_S => '0', REPLICATION_SCOPE => '0', BLOOMFILTER => 'ROW', CACHE_DATA_ON_WRITE => 'false', NEW_VERSION_S => '0', REPLICATION_SCOPE => '0', BLOOMFILTER => 'ROW', CACHE_DATA_ON_WRITE => 'false', NEW_VERSION_S => '0', REPLICATION_SCOPE => '0', BLOOMFILTER => 'ROW', CACHE_DATA_ON_WRITE => 'false', NEW_VERSION_S => '0', REPLICATION_SCOPE => '0', BLOOMFILTER => 'ROW', CACHE_DATA_ON_WRITE => 'false', NEW_VERSION_S => '0', REPLICATION_SCOPE => '0', BLOOMFILTER => 'ROW', CACHE_DATA_ON_WRITE => 'false', NEW_VERSION_S => '0', REPLICATION_SCOPE => '0', BLOOMFILTER => 'ROW', CACHE_DATA_ON_WRITE => 'false', PREFETCH_BLOCKS_ON_OPEN => 'false', COMPRESSION => 'NONE', CACHE_DATA_ON_WRITE => 'false', PREFETCH_BLOCKS_ON_OPEN => 'false', COMPRESSION => 'NONE', CACHE_DATA_ON_WRITE => 'false', PREFETCH_BLOCKS_ON_OPEN => 'false', COMPRESSION => 'NONE',
                  row(s)
ook 0.0352 seconds
```



#### Table wanghuan:student

#### **Table Attributes**

Attribute Name	Value	Description
Enabled	true	Is the table enabled
Compaction	NONE	Is the table compacting

Property         Value           VERSIONS         5           EVICT_BLOCKS_ON_CLOSE         false           NEW_VERSION_BEHAVIOR         false           EEP_DELETED_CELLS         FALSE           CACHE_DATA_ON_WRITE         false           DATA_BLOCK_ENCODING         NONE           TL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         ROW           CACHE_INDEX_ON_WRITE         false           In_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE           BLOCKCACHE         Inue           BLOCKSZE         65536	Table Schema		
Property   Version   S	Column Name		
EVICT_BLOCKS_ON_CLOSE   NEW_VERSION_BENWORR   from	info	Property	Value
NEW_VERSION_BENAVIOR		VERSIONS	5
KEP_DELETEQ_CELLS         FM.SE           CACHE_DATA_ON_WRITE         finise           DATA_BLOCK_ENCODING         NONE           TL         2147489877           MN_VERSIONS         0           REPLICATION_SCOPE         0           GACHE_INDEX_ON_WRITE         finise           MLWEGNEY         finise           CACHE_BLOOMS_ON_WRITE         finise           CACHE_BLOOMS_ON_WRITE         finise           BLOCKS.CACHE         tus           BLOCKS.CACHE         tus           BLOCKS.CACHE         tus           EVET_BLOCKS_ON_CLOSE         finise           EVET_BLOCKS_ON_CLOSE         finise           EVET_BLOCKS_ON_CLOSE         finise           EVET_BLOCK_ENCODING         NONE           TL         CACHE_DATA_ON_WRITE         finise           MAN_VERSIONS         NONE           BED_CALTATON_SOPIE         finise           GACHE_INDEX_ON_WRITE         finise           MED_CALTATON_SOPIE         finise           ALEMENTY         finise           CACHE_BLOOMS_ON_WRITE         finise           CACHE_BLOOMS_ON_WRITE         finise           CACHE_BLOOMS_ON_WRITE         finise           CACHE_BLOOM		EVICT_BLOCKS_ON_CLOSE	false
CACHE_DATA_ON_WRITE		NEW_VERSION_BEHAVIOR	false
DATA_BLOCK_ENCODING		KEEP_DELETED_CELLS	FALSE
TTL   MIN_VERSIONS   0   0   0   0   0   0   0   0   0		CACHE_DATA_ON_WRITE	false
MIN_VERGIONS   0		DATA_BLOCK_ENCODING	NONE
REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_NOEX_ON_WRITE         failue           IN_MEMORY         failue           CACHE_BLOOMS_ON_WRITE         failue           PREFETCH_BLOCKS_ON_OPEN         failue           COMPRESSION         NONE           BLOCKCACHE         true           BLOCKSZE         95530           VERSIONS         5           EVICT_BLOCKS_ON_CLOSE         failue           NEW_VERSION_BEHAVIOR         failue           KEEP_DELETED_CELLS         FALSE           CACHE_DATA_ON_WRITE         failue           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           ALY		TTL	2147483647
BLOOMFILTER   ROW   ROW		MIN_VERSIONS	0
CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE           BLOCKGACHE         true           BLOCKSIZE         S536           VERSIONS         5           EVICT_BLOCKS_ON_CLOSE         false           NEW_VERSION_BEHANIOR         false           KEEP_DELETED_CELLS         false           CACHE_DATA_ON_WRITE         false           DATA_BLOCK_ENCODING         NONE           TIL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_BLOCKS_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOCKS_ON_WRITE         false           CACHE_BLOCKS_ON_WRITE         false           CACHE_BLOCKS_ON_OPEN         false		REPLICATION_SCOPE	0
N,MEMORY		BLOOMFILTER	ROW
CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE           BLOCKCACHE         true           BLOCKSIZE         Value           VERSIONS         5           EVICT_BLOCKS_ON_CLOSE         false           NEW_VERSION_BEHAVIOR         false           CEEP_DELETED_CELLS         FALSE           CACHE_DATA_ON_WRITE         false           MIN_VERSIONS         0           REDICATION_SCOPE         ROW           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           LI_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           FILMEMORY         false           PREFETCH_BLOCKS_ON_OPEN         false           CACHE_BLOOMS_ON_WRITE         false           CACHE_BLOOMS_ON_WRITE         false           CACHE_BLOOMS_ON_WRITE         false           FEFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		CACHE_INDEX_ON_WRITE	false
PREFECTL, BLOCKS, ON_OPEN         false           COMPRESSION         NONE           BLOCKCACHE         true           BLOCKSIZE         65536           POPERTY         Value           VERSIONS         5           EVICT_BLOCKS_ON_CLOSE         false           NEW_VERSION_BEHAVIOR         false           CACHE_DATA_ON_WRITE         false           CACHE_DATA_ON_WRITE         false           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		IN_MEMORY	false
COMPRESSION         NONE           BLOCKCACHE         true           BLOCKSIZE         CRESION         Solid           VERSIONS         5           EVICT_BLOCKS_ON_CLOSE         Intele           INEW_VERSION_BEHAVIOR         false           KEEP_DELETED_CELLS         FALSE           CACHE_DATA_ON_WRITE         100E           TIL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         ROW           IN_MEMORY         false           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOKS_ON_OPEN         false           COMPRESSION         NONE		CACHE_BLOOMS_ON_WRITE	false
BLOCKCACHE		PREFETCH_BLOCKS_ON_OPEN	false
Property   Value		COMPRESSION	NONE
Property		BLOCKCACHE	true
Property         Value           VERSIONS         5           EVICT_BLOCKS_ON_CLOSE         false           NEW_VERSION_BEHAVIOR         false           KEEP_DELETED_CELLS         FALSE           CACHE_DATA_ON_WRITE         false           DATA_BLOCK_ENCODING         NONE           TIL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		BLOCKSIZE	65536
EVICT_BLOCKS_ON_CLOSE         false           NEW_VERSION_BEHAVIOR         false           KEEP_DELETED_CELLS         FALSE           CACHE_DATA_ON_WRITE         false           DATA_BLOCK_ENCODING         NONE           TIL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE	score	Property	Value
NEW_VERSION_BEHAVIOR         false           KEEP_DELETED_CELLS         FALSE           CACHE_DATA_ON_WRITE         false           DATA_BLOCK_ENCODING         NONE           TTL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		VERSIONS	5
KEEP_DELETED_CELLS         FALSE           CACHE_DATA_ON_WRITE         false           DATA_BLOCK_ENCODING         NONE           TTL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		EVICT_BLOCKS_ON_CLOSE	false
CACHE_DATA_ON_WRITE         false           DATA_BLOCK_ENCODING         NONE           TTL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		NEW_VERSION_BEHAVIOR	false
DATA_BLOCK_ENCODING         NONE           TTL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		KEEP_DELETED_CELLS	FALSE
TTL         2147483647           MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		CACHE_DATA_ON_WRITE	false
MIN_VERSIONS         0           REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		DATA_BLOCK_ENCODING	NONE
REPLICATION_SCOPE         0           BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		TTL	2147483647
BLOOMFILTER         ROW           CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		MIN_VERSIONS	0
CACHE_INDEX_ON_WRITE         false           IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		REPLICATION_SCOPE	0
IN_MEMORY         false           CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		BLOOMFILTER	ROW
CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		CACHE_INDEX_ON_WRITE	false
CACHE_BLOOMS_ON_WRITE         false           PREFETCH_BLOCKS_ON_OPEN         false           COMPRESSION         NONE		IN_MEMORY	false
COMPRESSION NONE		CACHE_BLOOMS_ON_WRITE	false
COMPRESSION NONE			false
			NONE
		BLOCKCACHE	true
BLOCKSIZE 65536			

# 插入数据

```
hbase(main):008:0> scan 'wanghuan:student
                                                                                              COLUMN+CELL
                                                                                             column=info:class, timestamp=1627383645163, value=1
column=info:name, timestamp=1627383645163, value=Tom
column=info:student_id, timestamp=1627383645163, value=20210000000001
   20210000000001
   20210000000001
   20210000000001
                                                                                            column=info:student_id, timestamp=1627383645163, value=202100000000001
column=score:programming, timestamp=1627383645163, value=75
column=score:understanding, timestamp=1627383645163, value=75
column=info:class, timestamp=1627383645163, value=1
column=info:name, timestamp=1627383645163, value=Jerry
column=info:student_id, timestamp=1627383645163, value=20210000000002
column=score:programming, timestamp=1627383645163, value=85
column=info:class, timestamp=1627383645163, value=85
column=info:class, timestamp=1627383645163, value=85
   20210000000001
   20210000000001
   20210000000002
   202100000000002
   20210000000002
   20210000000002
   20210000000002
                                                                                             column=info:class, timestamp=1627383645163, value=2
column=info:name, timestamp=1627383645163, value=2
column=info:name, timestamp=1627383645163, value=Jack
column=info:student_id, timestamp=1627383645163, value=20210000000003
column=score:programming, timestamp=1627383645163, value=80
   20210000000003
   20210000000003
   20210000000003
   20210000000003
                                                                                             column=score:understanding, timestamp=1627383645163, value=80
column=info:class, timestamp=1627383645163, value=80
column=info:name, timestamp=1627383645163, value=Rose
column=score:programming, timestamp=1627383645163, value=20210000000004
column=score:understanding, timestamp=1627383645163, value=60
   20210000000003
   20210000000004
   20210000000004
   20210000000004
   20210000000004
                                                                                             column=score:understanding, timestamp=1627383645163, value=60
column=info:class, timestamp=1627383645163, value=1
column=info:name, timestamp=1627383645163, value=wanghuan
column=info:student_id, timestamp=1627383645163, value=620210579030073
column=score:programming, timestamp=1627383645163, value=90
   20210000000004
   G20210579030073
   G20210579030073
   G20210579030073
   G20210579030073
                                                                                              column=score:understanding, timestamp=1627383645163, value=90
   G20210579030073
5 row(s)
Took 0.1009 seconds
```

#### 查询数据

## 指定RowKey 点查一行数据

## 指定RowKey、列族、列名 查询单cell 内容

### 批量rowkey 查询

```
查询条件: rowkey为 "2021000000002", "2021000000001"
```

#### 全表遍历

## 更新数据

#### 根据RowKey update 某一列的值

```
删除条件:
String rowKey = "G20210579030073" ;
String coloumnFamily = "info" ;
hbaseApiOperation.updateCellDataByRowKey(HbaseApiOperation.tableName,rowKey,coloumnFamily,"understanding",String.valueOf(100)) ;
```

```
hbase(main):011:0> scan 'wanghuan:student
                                                                                                                                                               COLUMN+CELL
                                                                                                                                                          COLUMN+CELL column=info:class, timestamp=1627383645163, value=1 column=info:name, timestamp=1627383645163, value=Tom column=info:student_id, timestamp=1627383645163, value=20210000000001 column=score:programming, timestamp=1627383645163, value=75 column=score:understanding, timestamp=1627383645163, value=75 column=info:class, timestamp=1627383645163, value=1 column=info:name, timestamp=1627383645163, value=lerry column=info:name, timestamp=1627383645163, value=20210000000002 column=score:programming, timestamp=1627383645163, value=85 column=score:understanding, timestamp=1627383645163, value=85 column=info:class, timestamp=1627383645163, value=2 column=info:name, timestamp=1627383645163, value=2 column=info:name, timestamp=1627383645163, value=2021000000003 column=score:programming, timestamp=1627383645163, value=80 column=info:class, timestamp=1627383645163, value=80 column=info:name, timestamp=1627383645163, value=80 column=info:name, timestamp=1627383645163, value=80 column=info:name, timestamp=1627383645163, value=80 column=info:name, timestamp=1627383645163, value=60 column=info:name, timestamp=1627383645163, value=60 column=info:name, timestamp=1627383645163, value=60 column=info:class, timestamp=1627383645163, value=60 column=info:name, timestamp=1627383645163, value=60 column=info:name, timestamp=1627383645163, value=60 column=info:class, timestamp=1627383645163, value=60 column=info:name, timestamp=1627383645163, value=90 column=info:understanding, timestamp=1627383645163, value=90 column=score:programming, timestamp=1627383645163, value=90 column=score:programming, timestamp=1627383645163, value=90 column=score:understanding, timestamp=1627383645163, value=90 column=score:understanding, timestamp=1627383645163, value=90 column=score:understanding, timestamp=1627383645163, value=90 column=score:understanding, timestamp=1627383645163, value=90
    20210000000001
                                                                                                                                                               column=info:class, timestamp=1627383645163, value=1
    20210000000001
    20210000000001
    20210000000001
    20210000000001
    20210000000002
    20210000000002
    20210000000002
    20210000000002
    20210000000002
    20210000000003
    20210000000003
    20210000000003
    20210000000003
    20210000000003
    20210000000004
    20210000000004
    20210000000004
    20210000000004
    20210000000004
    G20210579030073
    G20210579030073
    G20210579030073
G20210579030073
    G20210579030073
    G20210579030073
  5 row(s)
Took 0.0157 seconds
```

#### 删除数据

#### 根据rowkey删除一行数据

```
删除条件: String rowKey = "20210000000004";
```

```
nbase(main):012:0> scan 'wanghuan:student
                                                                                                                                      COLUMN+CELL

column=info:class, timestamp=1627383645163, value=1

column=info:name, timestamp=1627383645163, value=Tom

column=score:programming, timestamp=1627383645163, value=20210000000001

column=score:understanding, timestamp=1627383645163, value=75

column=score:understanding, timestamp=1627383645163, value=75

column=info:class, timestamp=1627383645163, value=1

column=info:name, timestamp=1627383645163, value=Jerry

column=score:programming, timestamp=1627383645163, value=20210000000002

column=score:understanding, timestamp=1627383645163, value=85

column=score:understanding, timestamp=1627383645163, value=2

column=info:class, timestamp=1627383645163, value=2

column=info:name, timestamp=1627383645163, value=2

column=score:programming, timestamp=1627383645163, value=80

column=score:understanding, timestamp=1627383645163, value=80

column=info:name, timestamp=1627383645163, value=1

column=info:name, timestamp=1627383645163, value=1

column=info:name, timestamp=1627383645163, value=1

column=info:name, timestamp=1627383645163, value=4

column=info:name, timestamp=1627383645163, value=4

column=info:name, timestamp=1627383645163, value=90

column=score:programming, timestamp=1627383645163, value=90

column=score:programming, timestamp=1627383645163, value=90

column=score:understanding, timestamp=1627383645163, value=90
                                                                                                                                         COLUMN+CELL
     20210000000001
     202100000000001
     20210000000001
     20210000000001
     20210000000001
     20210000000002
     20210000000002
     20210000000002
202100000000002
     20210000000002
     20210000000003
     20210000000003
     20210000000003
     20210000000003
     20210000000003
     G20210579030073
     G20210579030073
     G20210579030073
     G20210579030073
     G20210579030073
     G20210579030073
                                                                                                                                         column=score:understanding, timestamp=1627383645163, value=90
4 row(s)
Took 0.0245 seconds
```

#### 删除某一行 某一列簇的数据

```
删除条件:
String rowKey = "20210000000003" ;
String coloumnFamily = "score" ;
```

```
hbase(main):013:0> scan 'wanghuan:student
                                                                                                                                 COLUMN+CELL
ROW
                                                                                                                               COLUMN+CELL
column=info:class, timestamp=1627383645163, value=1
column=info:name, timestamp=1627383645163, value=Tom
column=info:student_id, timestamp=1627383645163, value=20210000000001
column=score:programming, timestamp=1627383645163, value=75
column=score:understanding, timestamp=1627383645163, value=75
column=info:class, timestamp=1627383645163, value=1
column=info:name, timestamp=1627383645163, value=Jerry
column=info:student_id, timestamp=1627383645163, value=202100000000002
column=score:programming, timestamp=1627383645163, value=85
column=score:understanding. timestamp=1627383645163, value=85
   20210000000001
   20210000000001
    20210000000001
    20210000000001
    20210000000001
    20210000000002
     20210000000002
    20210000000002
   20210000000002
202100000000002
                                                                                                                               column=score:programming, timestamp=1627383645163, value=85
column=score:understanding, timestamp=1627383645163, value=85
column=info:class, timestamp=1627383645163, value=2
column=info:name, timestamp=1627383645163, value=Jack
column=info:student_id, timestamp=1627383645163, value=20210000000003
column=info:class, timestamp=1627383645163, value=1
column=info:name, timestamp=1627383645163, value=wanghuan
column=info:student_id, timestamp=1627383645163, value=G20210579030073
column=info:understanding, timestamp=1627383645163, value=100
column=score:programming, timestamp=1627383645163, value=90
column=score:understanding, timestamp=1627383645163, value=90
    202100000000003
    202100000000003
    20210000000003
   G20210579030073
G20210579030073
    G20210579030073
    G20210579030073
    G20210579030073
   G20210579030073
 4 row(s)
Took 0.0193 seconds
```

## 删除某一行某个列簇某几列的值

```
删除条件:
String rowKey = "20210000000002";
String coloumnFamily = "info";
"name", "class" 两个列族
```

```
hbase(main):014:0> scan 'wanghuan:stude
                                                                                                                   COLUMN+CELL

column=info:class, timestamp=1627383645163, value=1

column=info:name, timestamp=1627383645163, value=Tom

column=info:student_id, timestamp=1627383645163, value=20210000000001

column=score:programming, timestamp=1627383645163, value=75

column=score:understanding, timestamp=1627383645163, value=75

column=info:student_id, timestamp=1627383645163, value=20210000000002

column=score:programming, timestamp=1627383645163, value=85

column=score:understanding, timestamp=1627383645163, value=85

column=info:class, timestamp=1627383645163, value=2

column=info:name, timestamp=1627383645163, value=Jack

column=info:student_id, timestamp=1627383645163, value=20210000000003

column=info:class, timestamp=1627383645163, value=4

column=info:name, timestamp=1627383645163, value=4

column=info:name, timestamp=1627383645163, value=620210579030073

column=info:understanding, timestamp=1627383645163, value=90

column=score:programming, timestamp=1627383645163, value=90
                                                                                                                     COLUMN+CELL
     20210000000001
     20210000000001
     20210000000001
     20210000000001
    20210000000002
     20210000000002
     20210000000002
     20210000000003
     20210000000003
     20210000000003
    G20210579030073
    G20210579030073
     G20210579030073
    G20210579030073
    G20210579030073
    G20210579030073
                                                                                                                     column=score:understanding, timestamp=1627383645163, value=90
4 row(s)
Took 0.0145 seconds
```

#### 删除表

```
hbase(main):015:0> scan 'wanghuan:student'
ROW COLUMN+CELL

org.apache.hadoop.hbase.TableNotFoundException: wanghuan:student
    at org.apache.hadoop.hbase.client.ConnectionImplementation.getTableState(ConnectionImplementation.java:1954)
    at org.apache.hadoop.hbase.client.ConnectionImplementation.isTableDisabled(ConnectionImplementation.java:583)
    at org.apache.hadoop.hbase.client.ConnectionImplementation.relocateRegion(ConnectionImplementation.java:713)
    at org.apache.hadoop.hbase.client.RonnectionImplementation.getRegion(ConnectionImplementation.java:713)
    at org.apache.hadoop.hbase.client.RonnecTallable.prepare(ScannerCallable.java:139)
    at org.apache.hadoop.hbase.client.ScannerCallable.prepare(ScannerCallable.java:139)
    at org.apache.hadoop.hbase.client.ResultBoundedCompletionService*QueueingFuture.run(ResultBoundedCompletionService.java:80)
    at org.apache.hadoop.hbase.client.ResultBoundedCompletionService*QueueingFuture.run(ResultBoundedCompletionService.java:80)
    at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)
    at java.util.concurrent.ThreadPoolExecutor**sworker.run(ThreadPoolExecutor.java:624)

ERROR: Unknown table wanghuan:student!

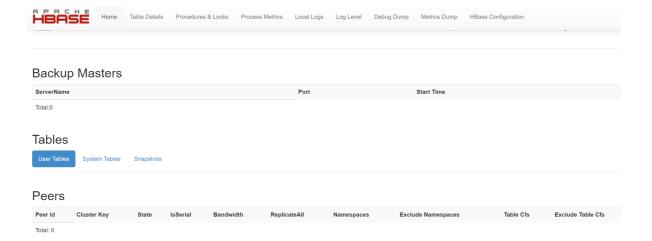
For usage try 'help "scan"'

Took 0.6403 seconds
hbase(main):016:0> list

TABLE
0 row(s)

Took 0.0184 seconds

-> []
```



# Hbase集群安装遇到问题

问题1 /opt/software/hadoop-3.1.3/libexec/hadoop-functions.sh:行2395:
HADOOP\_ORG.APACHE.HADOOP.HBASE.UTIL.GETJAVAPROPE
RTY\_USER:错误的替换

hbase-env.sh文件尾添加如下配置 , 重启之后 jps可以查到Hmaster

参考文档: https://blog.csdn.net/weixin 45048331/article/details/109823555

export HBASE\_DISABLE\_HADOOP\_CLASSPATH\_LOOKUP=true

# 问题 2 Failed get of master address: java.io.IOException: Can't get master address from ZooKeeper; znode data == null

端口号填写错误,配置成HDFS RPC端口号

### 问题 3 hbase shell命令使用正常, wei ui 无法打开60010页面

在hbase-site.xml中添加端口信息