

```
Last login: Wed Jun 13 12:03:14 on console
Snehas-MacBook-Pro:~ snehamishra$ start-yarn.sh
-bash: start-yarn.sh: command not found
Snehas-MacBook-Pro:~ snehamishra$ ls
Applications      Movies            lab4
Desktop           Music             myApp
Documents         Pictures          node_modules
Downloads         Public            package-lock.json
Library           eclipse           todo
Snehas-MacBook-Pro:~ snehamishra$ cd Documents/
Snehas-MacBook-Pro:Documents snehamishra$ ls
Increment 1 - Smart Shopping.key iTunes Software License.rtf
bigdata      workspace
Snehas-MacBook-Pro:Documents snehamishra$ cd bigdata/
Snehas-MacBook-Pro:bigdata snehamishra$ ls
HadoopInstallationSteps.pages hadoop-2.8.1.tar
data                          name
hadoop-2.8.1
Snehas-MacBook-Pro:bigdata snehamishra$ cd hadoop-2.8.1
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ ls
LICENSE.txt bin      lib      sbin
NOTICE.txt  etc      libexec  share
README.txt include  logs
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ start-yarn.sh
-bash: start-yarn.sh: command not found
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ sbin/start-yarn.sh
starting yarn daemons
starting resourcemanager, logging to /Users/snehamishra/Documents/
bigdata/hadoop-2.8.1/logs/yarn-snehamishra-resourcemanager-Snehas-
MacBook-Pro.local.out
localhost: starting nodemanager, logging to /Users/snehamishra/
Documents/bigdata/hadoop-2.8.1/logs/yarn-snehamishra-nodemanager-
Snehas-MacBook-Pro.local.out
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ jps
801 NodeManager
838 Jps
716 ResourceManager
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ sbin/startall-yarn.sh
-bash: sbin/startall-yarn.sh: No such file or directory
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ sbin/dfs.sh
-bash: sbin/dfs.sh: No such file or directory
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ sbin/start-dfs.sh
18/06/13 12:14:16 WARN util.NativeCodeLoader: Unable to load native-
hadoop library for your platform... using builtin-java classes where
applicable
Starting namenodes on [localhost]
localhost: starting namenode, logging to /Users/snehamishra/Documents/
bigdata/hadoop-2.8.1/logs/hadoop-snehamishra-namenode-Snehas-MacBook-
Pro.local.out
```

```

localhost: starting datanode, logging to /Users/snehamishra/Documents/
bigdata/hadoop-2.8.1/logs/hadoop-snehamishra-datanode-Snehas-MacBook-
Pro.local.out
Starting secondary namenodes [0.0.0.0]
0.0.0.0: starting secondarynamenode, logging to /Users/snehamishra/
Documents/bigdata/hadoop-2.8.1/logs/hadoop-snehamishra-
secondarynamenode-Snehas-MacBook-Pro.local.out
18/06/13 12:14:31 WARN util.NativeCodeLoader: Unable to load native-
hadoop library for your platform... using builtin-java classes where
applicable
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ jps
928 NameNode
801 NodeManager
1106 SecondaryNameNode
1174 Jps
716 ResourceManager
1006 DataNode
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ sbin/stop-dfs.sh
18/06/13 12:27:34 WARN util.NativeCodeLoader: Unable to load native-
hadoop library for your platform... using builtin-java classes where
applicable
Stopping namenodes on [localhost]
localhost: stopping namenode
localhost: stopping datanode
Stopping secondary namenodes [0.0.0.0]
0.0.0.0: stopping secondarynamenode
18/06/13 12:27:52 WARN util.NativeCodeLoader: Unable to load native-
hadoop library for your platform... using builtin-java classes where
applicable
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ sbin/stop-yarn.sh
stopping yarn daemons
stopping resourcemanager
localhost: stopping nodemanager
localhost: nodemanager did not stop gracefully after 5 seconds:
killing with kill -9
no proxyserver to stop
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ jps
1591 Jps
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ brew install hbase
Updating Homebrew...
^Z
[1]+  Stopped                  brew install hbase
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ cd ..
Snehas-MacBook-Pro:bigdata snehamishra$ ls
HadoopInstallationSteps.pages  hadoop-2.8.1.tar
data                            name

```

```

hadoop-2.8.1
Snehas-MacBook-Pro:bigdata snehamishra$ brew install hbase
Error: Another active Homebrew update process is already in progress.
Please wait for it to finish or terminate it to continue.
==> Installing dependencies for hbase: lzo
==> Installing hbase dependency: lzo
==> Downloading https://homebrew.bintray.com/bottles/
lzo-2.10.high_sierra.bottle
#####
## 100.0%
==> Pouring lzo-2.10.high_sierra.bottle.tar.gz
🍺 /usr/local/Cellar/lzo/2.10: 31 files, 556.5KB
==> Installing hbase
==> Downloading https://homebrew.bintray.com/bottles/
hbase-1.2.6_2.high_sierra.b
#####
## 100.0%
==> Pouring hbase-1.2.6_2.high_sierra.bottle.tar.gz
==> Caveats
To have launchd start hbase now and restart at login:
  brew services start hbase
Or, if you don't want/need a background service you can just run:
  /usr/local/opt/hbase/bin/start-hbase.sh
==> Summary
🍺 /usr/local/Cellar/hbase/1.2.6_2: 9,846 files, 329.8MB
Snehas-MacBook-Pro:bigdata snehamishra$ ls
HadoopInstallationSteps.pages  hadoop-2.8.1.tar
data                            name
hadoop-2.8.1
Snehas-MacBook-Pro:bigdata snehamishra$ cd hadoop-2.8.1
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ ls
LICENSE.txt  bin      lib      sbin
NOTICE.txt   etc      libexec  share
README.txt   include  logs
Snehas-MacBook-Pro:hadoop-2.8.1 snehamishra$ cd /usr/local/Cellar/
Snehas-MacBook-Pro:Cellar snehamishra$ ls
apr      gettext    lz4      python    utf8proc
apr-util  hadoop     lzo      python@2  wget
cassandra  hbase     mongodb  readline  xz
cython     libidn2    openssl  sqlite
gdbm       libunistring perl      subversion
Snehas-MacBook-Pro:Cellar snehamishra$ cd hbase/
Snehas-MacBook-Pro:hbase snehamishra$ ls
1.2.6_2
Snehas-MacBook-Pro:hbase snehamishra$ cd 1.2.6_2/
Snehas-MacBook-Pro:1.2.6_2 snehamishra$ ls
CHANGES.txt      README.txt
INSTALL_RECEIPT.json  bin
LICENSE.txt        homebrew.mxcl.hbase.plist

```

```

NOTICE.txt          libexec
Snehas-MacBook-Pro:1.2.6_2 snehamishra$ cd libexec/
Snehas-MacBook-Pro:libexec snehamishra$ ls
bin      conf      docs      hbase-webapps  lib
Snehas-MacBook-Pro:libexec snehamishra$ cd conf/
Snehas-MacBook-Pro:conf snehamishra$ ls
hadoop-metrics2-hbase.properties  hbase-site.xml
hbase-env.sh                      log4j.properties
hbase-policy.xml                  regionservers
Snehas-MacBook-Pro:conf snehamishra$ vim hbase-site.xml
Snehas-MacBook-Pro:conf snehamishra$ ls
hadoop-metrics2-hbase.properties  hbase-site.xml
hbase-env.sh                      log4j.properties
hbase-policy.xml                  regionservers
Snehas-MacBook-Pro:conf snehamishra$ vim hbase-env.sh
Snehas-MacBook-Pro:conf snehamishra$ vim hbase-env.sh
Snehas-MacBook-Pro:conf snehamishra$ vim hbase-site.xml
Snehas-MacBook-Pro:conf snehamishra$ ls
hadoop-metrics2-hbase.properties  hbase-site.xml
hbase-env.sh                      log4j.properties
hbase-policy.xml                  regionservers
Snehas-MacBook-Pro:conf snehamishra$ cd ..
Snehas-MacBook-Pro:libexec snehamishra$ ls
bin      conf      docs      hbase-webapps  lib
Snehas-MacBook-Pro:libexec snehamishra$ bin/start-hbase.sh
localhost: starting zookeeper, logging to /usr/local/var/log/hbase/
hbase-snehamishra-zookeeper-Snehas-MacBook-Pro.local.out
starting master, logging to /usr/local/var/log/hbase/hbase-
snehamishra-master-Snehas-MacBook-Pro.local.out
starting regionserver, logging to /usr/local/var/log/hbase/hbase-
snehamishra-1-regionserver-Snehas-MacBook-Pro.local.out
Snehas-MacBook-Pro:libexec snehamishra$ jps
2629 NameNode
2709 DataNode
3637 Jps
3366 HMaster
3318 HQuorumPeer
2919 ResourceManager
2808 SecondaryNameNode
3003 NodeManager
3518 HRegionServer
Snehas-MacBook-Pro:libexec snehamishra$ bin/hbase shell
2018-06-13 17:00:59,931 WARN [main] util.NativeCodeLoader: Unable to
load native-hadoop library for your platform... using builtin-java
classes where applicable
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/usr/local/Cellar/hbase/1.2.6_2/
libexec/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/impl/
StaticLoggerBinder.class]

```

SLF4J: Found binding in [jar:file:/usr/local/Cellar/hadoop/3.1.0/libexec/share/hadoop/common/lib/slf4j-log4j12-1.7.25.jar!/org/slf4j/impl/StaticLoggerBinder.class]

SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.

SLF4J: Actual binding is of type [org.slf4j.impl.Log4jLoggerFactory]

HBase Shell; enter 'help<RETURN>' for list of supported commands.

Type "exit<RETURN>" to leave the HBase Shell

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```
hbase(main):001:0> create 'location_table1','country_cf1','state_cf2'
```

ERROR: Can't get master address from ZooKeeper; znode data == null

Here is some help for this command:

Creates a table. Pass a table name, and a set of column family specifications (at least one), and, optionally, table configuration. Column specification can be a simple string (name), or a dictionary (dictionaries are described below in main help output), necessarily including NAME attribute.

Examples:

Create a table with namespace=ns1 and table qualifier=t1

```
hbase> create 'ns1:t1', {NAME => 'f1', VERSIONS => 5}
```

Create a table with namespace=default and table qualifier=t1

```
hbase> create 't1', {NAME => 'f1'}, {NAME => 'f2'}, {NAME => 'f3'}
```

hbase> # The above in shorthand would be the following:

```
hbase> create 't1', 'f1', 'f2', 'f3'
```

```
hbase> create 't1', {NAME => 'f1', VERSIONS => 1, TTL => 2592000, BLOCKCACHE => true}
```

```
hbase> create 't1', {NAME => 'f1', CONFIGURATION => {'hbase.hstore.blockingStoreFiles' => '10'}}
```

Table configuration options can be put at the end.

Examples:

```
hbase> create 'ns1:t1', 'f1', SPLITS => ['10', '20', '30', '40']
```

```
hbase> create 't1', 'f1', SPLITS => ['10', '20', '30', '40']
```

```
hbase> create 't1', 'f1', SPLITS_FILE => 'splits.txt', OWNER => 'johndoe'
```

```
hbase> create 't1', {NAME => 'f1', VERSIONS => 5}, METADATA => { 'mykey' => 'myvalue' }
```

hbase> # Optionally pre-split the table into NUMREGIONS, using

hbase> # SPLITALGO ("HexStringSplit", "UniformSplit" or classname)

```
hbase> create 't1', 'f1', {NUMREGIONS => 15, SPLITALGO => 'HexStringSplit'}
```

```
hbase> create 't1', 'f1', {NUMREGIONS => 15, SPLITALGO =>
'HexStringSplit', REGION_REPLICATION => 2, CONFIGURATION =>
{'hbase.hregion.scan.loadColumnFamiliesOnDemand' => 'true'}}
hbase> create 't1', {NAME => 'f1', DFS_REPLICATION => 1}
```

You can also keep around a reference to the created table:

```
hbase> t1 = create 't1', 'f1'
```

Which gives you a reference to the table named 't1', on which you can then call methods.

```
hbase(main):002:0> list
TABLE
```

ERROR: Can't get master address from ZooKeeper; znode data == null

Here is some help for this command:

List all tables in hbase. Optional regular expression parameter could be used to filter the output. Examples:

```
hbase> list
hbase> list 'abc.*'
hbase> list 'ns:abc.*'
hbase> list 'ns:.*'
```

```
hbase(main):003:0> Snehas-MacBook-Pro:libexec snehamishra$ exit
logout
```

There are stopped jobs.

```
Snehas-MacBook-Pro:libexec snehamishra$ jps
```

```
2629 NameNode
```

```
2709 DataNode
```

```
3941 Jps
```

```
3318 HQuorumPeer
```

```
2919 ResourceManager
```

```
2808 SecondaryNameNode
```

```
3003 NodeManager
```

```
Snehas-MacBook-Pro:libexec snehamishra$ bin/start-hbase.sh
```

```
localhost: zookeeper running as process 3318. Stop it first.
```

```
starting master, logging to /usr/local/var/log/hbase/hbase-
snehamishra-master-Snehas-MBP.kc.umkc.edu.out
```

```
starting regionserver, logging to /usr/local/var/log/hbase/hbase-
snehamishra-1-regionserver-Snehas-MBP.kc.umkc.edu.out
```

```
Snehas-MacBook-Pro:libexec snehamishra$ bin/stop-hbase.sh
```

```
stopping hbase.....
```

```
localhost: stopping zookeeper.
```

```

Snehas-MacBook-Pro:libexec snehamishra$ jps
2629 NameNode
2709 DataNode
2919 ResourceManager
2808 SecondaryNameNode
3003 NodeManager
4895 Jps
Snehas-MacBook-Pro:libexec snehamishra$ bin/start-hbase.sh
localhost: starting zookeeper, logging to /usr/local/var/log/hbase/
hbase-snehamishra-zookeeper-Snehas-MBP.kc.umkc.edu.out
starting master, logging to /usr/local/var/log/hbase/hbase-
snehamishra-master-Snehas-MBP.kc.umkc.edu.out
starting regionserver, logging to /usr/local/var/log/hbase/hbase-
snehamishra-1-regionserver-Snehas-MBP.kc.umkc.edu.out
Snehas-MacBook-Pro:libexec snehamishra$ jps
5491 Jps
2629 NameNode
2709 DataNode
2919 ResourceManager
5160 HQuorumPeer
2808 SecondaryNameNode
5370 HRegionServer
3003 NodeManager
5213 HMaster
Snehas-MacBook-Pro:libexec snehamishra$ bin/hbase shell
2018-06-13 18:10:01,913 WARN [main] util.NativeCodeLoader: Unable to
load native-hadoop library for your platform... using builtin-java
classes where applicable
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/usr/local/Cellar/hbase/1.2.6_2/
libexec/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/impl/
StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/local/Cellar/hadoop/3.1.0/
libexec/share/hadoop/common/lib/slf4j-log4j12-1.7.25.jar!/org/slf4j/
impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an
explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Log4jLoggerFactory]
HBase Shell; enter 'help<RETURN>' for list of supported commands.
Type "exit<RETURN>" to leave the HBase Shell
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hbase(main):001:0> create 'location_table1','country_cf1','state_cf2'
0 row(s) in 1.5530 seconds

=> Hbase::Table - location_table1
hbase(main):002:0> list
TABLE
location_table1

```

1 row(s) in 0.0270 seconds

```
=> ["location_table1"]
```

```
hbase(main):003:0> describe c
```

callcc	caller	case
catalogjanitor_enabled	catalogjanitor_run	
catalogjanitor_switch	catch	cb
chomp	chomp!	
chop	chop!	chws
class	clear_auths	
clone	clone_snapshot	close_region
com	compact	
compact_rs	conf	context
count	create	
create_namespace	cws	cwWS

```
hbase(main):003:0> describe location_table1
```

```
NameError: undefined local variable or method `location_table1' for  
#<Object:0x234c5e41>
```

```
hbase(main):004:0> scan location_table1
```

```
NameError: undefined local variable or method `location_table1' for  
#<Object:0x234c5e41>
```

```
hbase(main):005:0> describe 'location_table1
```

```
hbase(main):006:0'
```

```
hbase(main):007:0' "
```

```
hbase(main):008:0' '
```

```
ERROR: Illegal character code:10, <
```

```
> at 15. User-space table qualifiers can only contain 'alphanumeric  
characters': i.e. [a-zA-Z_0-9-.]: location_table1
```

```
"
```

Here is some help for this command:

Describe the named table. For example:

```
hbase> describe 't1'
```

```
hbase> describe 'ns1:t1'
```

Alternatively, you can use the abbreviated 'desc' for the same thing.

```
hbase> desc 't1'
```

```
hbase> desc 'ns1:t1'
```

```
hbase(main):009:0> describe 'location_table1'
```

```
Table location_table1 is ENABLED
```

```
location_table1
```

```
COLUMN FAMILIES DESCRIPTION
```



```
{NAME => 'country_cf1', BLOOMFILTER => 'ROW', VERSIONS => '1',
IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS => '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
{NAME => 'state_cf2', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS => '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
2 row(s) in 0.1180 seconds
```

```
hbase(main):010:0> scan 'location_table1'
ROW COLUMN+CELL
0 row(s) in 0.0550 seconds
```

```
hbase(main):011:0> put
'location_table1','row1','country_cf1:country_code','india'
0 row(s) in 0.0830 seconds
```

```
hbase(main):012:0> scan 'location_table1'
ROW COLUMN+CELL
row1 column=country_cf1:country_code,
timestamp=1528931742562, value=india
1 row(s) in 0.0230 seconds
```

```
hbase(main):013:0> describe 'location_table1'
Table location_table1 is ENABLED
location_table1
COLUMN FAMILIES DESCRIPTION
{NAME => 'country_cf1', BLOOMFILTER => 'ROW', VERSIONS => '1',
IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS => '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
{NAME => 'state_cf2', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS => '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
2 row(s) in 0.0240 seconds
```

```
hbase(main):014:0> alter 'location_table1','city_cf3'
Updating all regions with the new schema...
0/1 regions updated.
1/1 regions updated.
Done.
0 row(s) in 3.2010 seconds
```

```

hbase(main):015:0> describe 'location_table1'
Table location_table1 is ENABLED
location_table1
COLUMN FAMILIES DESCRIPTION
{NAME => 'city_cf3', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY
=> 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_
SCOPE => '0'}
{NAME => 'country_cf1', BLOOMFILTER => 'ROW', VERSIONS => '1',
IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCO
DING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS
=> '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATI
ON_SCOPE => '0'}
{NAME => 'state_cf2', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY
=> 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION
_SCOPE => '0'}
3 row(s) in 0.0170 seconds

```

```

hbase(main):016:0> put 'location_table1','row1','country','india'

```

```

ERROR: Unknown column family! Valid column names: city_cf3:*,
country_cf1:*, state_cf2:*

```

Here is some help for this command:

Put a cell 'value' at specified table/row/column and optionally timestamp coordinates. To put a cell value into table 'ns1:t1' or 't1'

at row 'r1' under column 'c1' marked with the time 'ts1', do:

```

hbase> put 'ns1:t1', 'r1', 'c1', 'value'
hbase> put 't1', 'r1', 'c1', 'value'
hbase> put 't1', 'r1', 'c1', 'value', ts1
hbase> put 't1', 'r1', 'c1', 'value',
{ATTRIBUTES=>{'mykey'=>'myvalue'}}
hbase> put 't1', 'r1', 'c1', 'value', ts1,
{ATTRIBUTES=>{'mykey'=>'myvalue'}}
hbase> put 't1', 'r1', 'c1', 'value', ts1, {VISIBILITY=>'PRIVATE|
SECRET'}

```

The same commands also can be run on a table reference. Suppose you had a reference

t to table 't1', the corresponding command would be:

```

hbase> t.put 'r1', 'c1', 'value', ts1,
{ATTRIBUTES=>{'mykey'=>'myvalue'}}

```

```
hbase(main):017:0> put 'location_table1','row1','country_cf1','india'
0 row(s) in 0.0090 seconds
```

```
hbase(main):018:0> describe 'location_table1'
Table location_table1 is ENABLED
location_table1
COLUMN FAMILIES DESCRIPTION
{NAME => 'city_cf3', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY
=> 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING
=> 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_
SCOPE => '0'}
{NAME => 'country_cf1', BLOOMFILTER => 'ROW', VERSIONS => '1',
IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCO
DING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS
=> '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATI
ON_SCOPE => '0'}
{NAME => 'state_cf2', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY
=> 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING
=> 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION
_SCOPE => '0'}
3 row(s) in 0.0220 seconds
```

```
hbase(main):019:0> scan 'location_table1'
ROW COLUMN+CELL
row1 column=country_cf1:,
timestamp=1528933503784, value=india
row1 column=country_cf1:country_code,
timestamp=1528931742562, value=india
1 row(s) in 0.0240 seconds
```

```
hbase(main):020:0> disable 'location_table1'
NoMethodError: undefined method `disable' for #<Object:0x234c5e41>
```

```
hbase(main):021:0> drop 'location_table1'
```

ERROR: Table location_table1 is enabled. Disable it first.

Here is some help for this command:

Drop the named table. Table must first be disabled:

```
hbase> drop 't1'
hbase> drop 'ns1:t1'
```

```
hbase(main):022:0> scan 'location_table1'
ROW COLUMN+CELL
```

```
row1                                column=country_cf1:,
timestamp=1528933503784, value=india
row1                                column=country_cf1:country_code,
timestamp=1528931742562, value=india
1 row(s) in 0.0190 seconds
```

```
hbase(main):023:0> disable 'location_table1'
0 row(s) in 2.2860 seconds
```

```
hbase(main):024:0> drop 'location_table1'
0 row(s) in 1.2830 seconds
```

```
hbase(main):025:0> scan 'location_table1'
ROW                                COLUMN+CELL
```

ERROR: Unknown table location_table1!

Here is some help for this command:

Scan a table; pass table name and optionally a dictionary of scanner specifications. Scanner specifications may include one or more of: TIMERANGE, FILTER, LIMIT, STARTROW, STOPROW, ROWPREFIXFILTER, TIMESTAMP, MAXLENGTH or COLUMNS, CACHE or RAW, VERSIONS, ALL_METRICS or METRICS

If no columns are specified, all columns will be scanned.
To scan all members of a column family, leave the qualifier empty as in
'col_family'.

The filter can be specified in two ways:

1. Using a filterString – more information on this is available in the Filter Language document attached to the HBASE-4176 JIRA
2. Using the entire package name of the filter.

If you wish to see metrics regarding the execution of the scan, the ALL_METRICS boolean should be set to true. Alternatively, if you would prefer to see only a subset of the metrics, the METRICS array can be defined to include the names of only the metrics you care about.

Some examples:

```
hbase> scan 'hbase:meta'
hbase> scan 'hbase:meta', {COLUMNS => 'info:regioninfo'}
hbase> scan 'ns1:t1', {COLUMNS => ['c1', 'c2'], LIMIT => 10,
STARTROW => 'xyz'}
hbase> scan 't1', {COLUMNS => ['c1', 'c2'], LIMIT => 10, STARTROW =>
'xyz'}
hbase> scan 't1', {COLUMNS => 'c1', TIMERANGE => [1303668804,
1303668904]}
```

```

hbase> scan 't1', {REVERSED => true}
hbase> scan 't1', {ALL_METRICS => true}
hbase> scan 't1', {METRICS => ['RPC_RETRIES', 'ROWS_FILTERED']}
hbase> scan 't1', {ROWPREFIXFILTER => 'row2', FILTER => "
(QualifierFilter (>=, 'binary:xyz')) AND (TimestampsFilter ( 123,
456))"}
hbase> scan 't1', {FILTER =>
org.apache.hadoop.hbase.filter.ColumnPaginationFilter.new(1, 0)}
hbase> scan 't1', {CONSISTENCY => 'TIMELINE'}
For setting the Operation Attributes
hbase> scan 't1', { COLUMNS => ['c1', 'c2'], ATTRIBUTES => {'mykey'
=> 'myvalue'}}
hbase> scan 't1', { COLUMNS => ['c1', 'c2'], AUTHORIZATIONS =>
['PRIVATE','SECRET']}
For experts, there is an additional option -- CACHE_BLOCKS -- which
switches block caching for the scanner on (true) or off (false). By
default it is enabled. Examples:

```

```

hbase> scan 't1', {COLUMNS => ['c1', 'c2'], CACHE_BLOCKS => false}

```

Also for experts, there is an advanced option -- RAW -- which instructs the scanner to return all cells (including delete markers and uncollected deleted cells). This option cannot be combined with requesting specific COLUMNS. Disabled by default. Example:

```

hbase> scan 't1', {RAW => true, VERSIONS => 10}

```

Besides the default 'toStringBinary' format, 'scan' supports custom formatting by column. A user can define a FORMATTER by adding it to the column name in the scan specification. The FORMATTER can be stipulated:

1. either as a org.apache.hadoop.hbase.util.Bytes method name (e.g, toInt, toString)
2. or as a custom class followed by method name: e.g. 'c(MyFormatterClass).format'.

Example formatting cf:qualifier1 and cf:qualifier2 both as Integers:

```

hbase> scan 't1', {COLUMNS => ['cf:qualifier1:toInt',
'cf:qualifier2:c(org.apache.hadoop.hbase.util.Bytes).toInt'] }

```

Note that you can specify a FORMATTER by column only (cf:qualifier). You cannot specify a FORMATTER for all columns of a column family.

Scan can also be used directly from a table, by first getting a reference to a table, like such:

```
hbase> t = get_table 't'
hbase> t.scan
```

Note in the above situation, you can still provide all the filtering, columns, options, etc as described above.

```
hbase(main):026:0> create 'location','country','state','city'
0 row(s) in 1.2560 seconds
```

```
=> Hbase::Table - location
hbase(main):027:0> describe 'location'
Table location is ENABLED
location
COLUMN FAMILIES DESCRIPTION
{NAME => 'city', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY =>
'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING =>
'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS => '0',
BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOP
E => '0'}
{NAME => 'country', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY
=> 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING
=> 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_S
COPE => '0'}
{NAME => 'state', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY =>
'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING =
> 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCO
PE => '0'}
3 row(s) in 0.0270 seconds
```

```
hbase(main):028:0> put
'location','row1','country:USA','state:KS','city:Mission'
```

```
ERROR: no method 'add' for arguments
(org.jruby.java.proxies.ArrayJavaProxy,org.jruby.java.proxies.ArrayJav
aProxy,org.jruby.RubyString,org.jruby.java.proxies.ArrayJavaProxy) on
Java::OrgApacheHadoopHbaseClient::Put
available overloads:
(byte[],java.nio.ByteBuffer,long,java.nio.ByteBuffer)
(byte[],byte[],long,byte[])
```

Here is some help for this command:

Put a cell 'value' at specified table/row/column and optionally timestamp coordinates. To put a cell value into table 'ns1:t1' or 't1'

at row 'r1' under column 'c1' marked with the time 'ts1', do:

```
hbase> put 'ns1:t1', 'r1', 'c1', 'value'
hbase> put 't1', 'r1', 'c1', 'value'
hbase> put 't1', 'r1', 'c1', 'value', ts1
hbase> put 't1', 'r1', 'c1', 'value',
{ATTRIBUTES=>{'mykey'=>'myvalue'}}
hbase> put 't1', 'r1', 'c1', 'value', ts1,
{ATTRIBUTES=>{'mykey'=>'myvalue'}}
hbase> put 't1', 'r1', 'c1', 'value', ts1, {VISIBILITY=>'PRIVATE|
SECRET'}
```

The same commands also can be run on a table reference. Suppose you had a reference

t to table 't1', the corresponding command would be:

```
hbase> t.put 'r1', 'c1', 'value', ts1,
{ATTRIBUTES=>{'mykey'=>'myvalue'}}}
```

```
hbase(main):029:0> put 'location','row1','country','USA'
0 row(s) in 0.0110 seconds
```

```
hbase(main):030:0> put 'location','row1','city','Mission'
0 row(s) in 0.0040 seconds
```

```
hbase(main):031:0> put 'location','row1','state','KS'
0 row(s) in 0.0100 seconds
```

```
hbase(main):032:0> scan 'location'
ROW                                COLUMN+CELL
 row1                                column=city:,
timestamp=1528934092020, value=Mission
 row1                                column=country:,
timestamp=1528934074089, value=USA
 row1                                column=state:,
timestamp=1528934113061, value=KS
1 row(s) in 0.0180 seconds
```

```
hbase(main):033:0> put 'location','row2','state','KS'
0 row(s) in 0.0040 seconds
```

```
hbase(main):034:0> put 'location','row2','country','USA'
0 row(s) in 0.0040 seconds
```

```
hbase(main):035:0> put 'location','row2','city','KCity'
0 row(s) in 0.0030 seconds
```

```
hbase(main):036:0> scan 'location'
ROW          COLUMN+CELL
 row1        column=city:,
timestamp=1528934092020, value=Mission
 row1        column=country:,
timestamp=1528934074089, value=USA
 row1        column=state:,
timestamp=1528934113061, value=KS
 row2        column=city:,
timestamp=1528934231789, value=KCity
 row2        column=country:,
timestamp=1528934213664, value=USA
 row2        column=state:,
timestamp=1528934201679, value=KS
2 row(s) in 0.0270 seconds
```

```
hbase(main):037:0> put 'location','row3','city','KCity'
0 row(s) in 0.0030 seconds
```

```
hbase(main):038:0> put 'location','row3','country','India'
0 row(s) in 0.0030 seconds
```

```
hbase(main):039:0> put 'location','row3','state','Jharkhand'
0 row(s) in 0.0050 seconds
```

```
hbase(main):040:0> scan 'location'
ROW          COLUMN+CELL
 row1        column=city:,
timestamp=1528934092020, value=Mission
 row1        column=country:,
timestamp=1528934074089, value=USA
 row1        column=state:,
timestamp=1528934113061, value=KS
 row2        column=city:,
timestamp=1528934231789, value=KCity
 row2        column=country:,
timestamp=1528934213664, value=USA
 row2        column=state:,
timestamp=1528934201679, value=KS
 row3        column=city:,
timestamp=1528934274373, value=KCity
 row3        column=country:,
timestamp=1528934289785, value=India
 row3        column=state:,
timestamp=1528934316419, value=Jharkhand
3 row(s) in 0.0230 seconds
```



```
hbase(main):041:0> create 'student_course','student_cf1','course_cf2'
0 row(s) in 2.2650 seconds
```

```
=> Hbase::Table - student_course
```

```
hbase(main):042:0> describe 'student_course'
```

```
Table student_course is ENABLED
```

```
student_course
```

```
COLUMN FAMILIES DESCRIPTION
```

```
{NAME => 'course_cf2', BLOOMFILTER => 'ROW', VERSIONS => '1',  
IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS  
=> '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
```

```
{NAME => 'student_cf1', BLOOMFILTER => 'ROW', VERSIONS => '1',  
IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS  
=> '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
```

```
2 row(s) in 0.0220 seconds
```

```
hbase(main):043:0> put 'student_course','row','student_cf1:ID','1'  
0 row(s) in 0.0150 seconds
```

```
hbase(main):044:0> describe 'student_course'
```

```
Table student_course is ENABLED
```

```
student_course
```

```
COLUMN FAMILIES DESCRIPTION
```

```
{NAME => 'course_cf2', BLOOMFILTER => 'ROW', VERSIONS => '1',  
IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS  
=> '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
```

```
{NAME => 'student_cf1', BLOOMFILTER => 'ROW', VERSIONS => '1',  
IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS  
=> '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
```

```
2 row(s) in 0.0200 seconds
```

```
hbase(main):045:0> scan 'student_course'
```

```
ROW COLUMN+CELL  
row column=student_cf1:ID,  
timestamp=1528934816985, value=1  
1 row(s) in 0.0150 seconds
```

```
hbase(main):046:0> put
```

```
'student_course','row','student_cf1:name','sneha'
```

```
0 row(s) in 0.0040 seconds
```

```
hbase(main):047:0> put 'student_course','row','course_cf2:ID','CS590'
0 row(s) in 0.0030 seconds
```

```
hbase(main):048:0> put
'student_course','row','course_cf2:Instructor','MAyanka'
0 row(s) in 0.0040 seconds
```

```
hbase(main):049:0> put
'student_course','row','course_cf2:University','UMKC'
0 row(s) in 0.0040 seconds
```

```
hbase(main):050:0> scan 'student_course'
ROW          COLUMN+CELL
  row                column=course_cf2:ID,
timestamp=1528934897050, value=CS590
  row                column=course_cf2:Instructor,
timestamp=1528934915581, value=MAyanka
  row                column=course_cf2:University,
timestamp=1528934930512, value=UMKC
  row                column=student_cf1:ID,
timestamp=1528934816985, value=1
  row                column=student_cf1:name,
timestamp=1528934866397, value=sneha
1 row(s) in 0.0160 seconds
```

```
hbase(main):051:0> put
'student_course','row1','course_cf2:University','UCM'
0 row(s) in 0.0050 seconds
```

```
hbase(main):052:0> put
'student_course','row1','course_cf2:Instructor','Jason'
0 row(s) in 0.0040 seconds
```

```
hbase(main):053:0> put 'student_course','row1','course_cf2:ID','CS490'
0 row(s) in 0.0040 seconds
```

```
hbase(main):054:0> put
'student_course','row1','student_cf1:name','smita'
0 row(s) in 0.0050 seconds
```

```
hbase(main):055:0> put 'student_course','row1','student_cf1:ID','2'
0 row(s) in 0.0030 seconds
```

```
hbase(main):056:0> scan 'student_course'
ROW          COLUMN+CELL
  row                column=course_cf2:ID,
timestamp=1528934897050, value=CS590
```

```

row                column=course_cf2:Instructor,
timestamp=1528934915581, value=MAyanka
row                column=course_cf2:University,
timestamp=1528934930512, value=UMKC
row                column=student_cf1:ID,
timestamp=1528934816985, value=1
row                column=student_cf1:name,
timestamp=1528934866397, value=sneha
row1               column=course_cf2:ID,
timestamp=1528934998214, value=CS490
row1               column=course_cf2:Instructor,
timestamp=1528934983926, value=Jason
row1               column=course_cf2:University,
timestamp=1528934970696, value=UCM
row1               column=student_cf1:ID,
timestamp=1528935039557, value=2
row1               column=student_cf1:name,
timestamp=1528935017471, value=smita
2 row(s) in 0.0180 seconds

```

```

hbase(main):057:0> whoami
snehamishra (auth:SIMPLE)
  groups: staff, everyone, localaccounts, _appserverusr, admin,
_appserveradm, _lpadmin, _appstore, _lpoperator, _developer,
_analyticsusers, com.apple.access_ftp, com.apple.access_screensharing,
com.apple.access_ssh, 1

```

```

hbase(main):058:0> version
1.2.6, rUnknown, Mon May 29 02:25:32 CDT 2017

```

```

hbase(main):059:0> status 'summary'

```

ERROR: Can't get master address from ZooKeeper; znode data == null

Here is some help for this command:
 Show cluster status. Can be 'summary', 'simple', 'detailed', or
 'replication'. The
 default is 'summary'. Examples:

```

hbase> status
hbase> status 'simple'
hbase> status 'summary'
hbase> status 'detailed'
hbase> status 'replication'
hbase> status 'replication', 'source'
hbase> status 'replication', 'sink'

```

```

hbase(main):060:0> status

```

ERROR: Can't get master address from ZooKeeper; znode data == null

Here is some help for this command:

Show cluster status. Can be 'summary', 'simple', 'detailed', or 'replication'. The default is 'summary'. Examples:

```
hbase> status
hbase> status 'simple'
hbase> status 'summary'
hbase> status 'detailed'
hbase> status 'replication'
hbase> status 'replication', 'source'
hbase> status 'replication', 'sink'
```

```
hbase(main):061:0> alter 'location','row3','city','ranchi'
```

ERROR: Connection refused

Here is some help for this command:

Alter a table. If the "hbase.online.schema.update.enable" property is set to false, then the table must be disabled (see help 'disable'). If the "hbase.online.schema.update.enable" property is set to true, tables can be altered without disabling them first. Altering enabled tables has caused problems in the past, so use caution and test it before using in production.

You can use the alter command to add, modify or delete column families or change table configuration options.

Column families work in a similar way as the 'create' command. The column family specification can either be a name string, or a dictionary with the NAME attribute.

Dictionaries are described in the output of the 'help' command, with no arguments.

For example, to change or add the 'f1' column family in table 't1' from current value to keep a maximum of 5 cell VERSIONS, do:

```
hbase> alter 't1', NAME => 'f1', VERSIONS => 5
```

You can operate on several column families:

```
hbase> alter 't1', 'f1', {NAME => 'f2', IN_MEMORY => true}, {NAME => 'f3', VERSIONS => 5}
```

To delete the 'f1' column family in table 'ns1:t1', use one of:

```
hbase> alter 'ns1:t1', NAME => 'f1', METHOD => 'delete'
hbase> alter 'ns1:t1', 'delete' => 'f1'
```

You can also change table-scope attributes like MAX_FILESIZE, READONLY, MEMSTORE_FLUSH_SIZE, DURABILITY, etc. These can be put at the end; for example, to change the max size of a region to 128MB, do:

```
hbase> alter 't1', MAX_FILESIZE => '134217728'
```

You can add a table coprocessor by setting a table coprocessor attribute:

```
hbase> alter 't1',
'coprocessor'=>'hdfs:///foo.jar|com.foo.FooRegionObserver|1001|
arg1=1,arg2=2'
```

Since you can have multiple coprocessors configured for a table, a sequence number will be automatically appended to the attribute name to uniquely identify it.

The coprocessor attribute must match the pattern below in order for the framework to understand how to load the coprocessor classes:

```
[coprocessor jar file location] | class name | [priority] |
[arguments]
```

You can also set configuration settings specific to this table or column family:

```
hbase> alter 't1', CONFIGURATION =>
{'hbase.hregion.scan.loadColumnFamiliesOnDemand' => 'true'}
hbase> alter 't1', {NAME => 'f2', CONFIGURATION =>
{'hbase.hstore.blockingStoreFiles' => '10'}}
```

You can also remove a table-scope attribute:

```
hbase> alter 't1', METHOD => 'table_att_unset', NAME =>
'MAX_FILESIZE'
```

```
hbase> alter 't1', METHOD => 'table_att_unset', NAME =>
'coprocessor$1'
```

You can also set REGION_REPLICATION:

```
hbase> alter 't1', {REGION_REPLICATION => 2}
```

There could be more than one alteration in one command:

```
hbase> alter 't1', { NAME => 'f1', VERSIONS => 3 },  
  { MAX_FILESIZE => '134217728' }, { METHOD => 'delete', NAME => 'f2'  
,  
  OWNER => 'johndoe', METADATA => { 'mykey' => 'myvalue' }
```

```
hbase(main):062:0> alter 'location','country','state','city','cf4'
```

ERROR: Connection refused

Here is some help for this command:

Alter a table. If the "hbase.online.schema.update.enable" property is set to false, then the table must be disabled (see help 'disable'). If the "hbase.online.schema.update.enable" property is set to true, tables can be altered without disabling them first. Altering enabled tables has caused problems in the past, so use caution and test it before using in production.

You can use the alter command to add, modify or delete column families or change table configuration options. Column families work in a similar way as the 'create' command. The column family specification can either be a name string, or a dictionary with the NAME attribute. Dictionaries are described in the output of the 'help' command, with no arguments.

For example, to change or add the 'f1' column family in table 't1' from current value to keep a maximum of 5 cell VERSIONS, do:

```
hbase> alter 't1', NAME => 'f1', VERSIONS => 5
```

You can operate on several column families:

```
hbase> alter 't1', 'f1', {NAME => 'f2', IN_MEMORY => true}, {NAME => 'f3', VERSIONS => 5}
```

To delete the 'f1' column family in table 'ns1:t1', use one of:

```
hbase> alter 'ns1:t1', NAME => 'f1', METHOD => 'delete'
```

```
hbase> alter 'ns1:t1', 'delete' => 'f1'
```

You can also change table-scope attributes like MAX_FILESIZE, READONLY, MEMSTORE_FLUSH_SIZE, DURABILITY, etc. These can be put at the end; for example, to change the max size of a region to 128MB, do:

```
hbase> alter 't1', MAX_FILESIZE => '134217728'
```

You can add a table coprocessor by setting a table coprocessor attribute:

```
hbase> alter 't1',  
  'coprocessor'=>'hdfs:///foo.jar|com.foo.FooRegionObserver|1001|  
arg1=1,arg2=2'
```

Since you can have multiple coprocessors configured for a table, a sequence number will be automatically appended to the attribute name to uniquely identify it.

The coprocessor attribute must match the pattern below in order for the framework to understand how to load the coprocessor classes:

```
[coprocessor jar file location] | class name | [priority] |  
[arguments]
```

You can also set configuration settings specific to this table or column family:

```
hbase> alter 't1', CONFIGURATION =>  
{ 'hbase.hregion.scan.loadColumnFamiliesOnDemand' => 'true' }  
hbase> alter 't1', { NAME => 'f2', CONFIGURATION =>  
{ 'hbase.hstore.blockingStoreFiles' => '10' } }
```

You can also remove a table-scope attribute:

```
hbase> alter 't1', METHOD => 'table_att_unset', NAME =>  
'MAX_FILESIZE'
```

```
hbase> alter 't1', METHOD => 'table_att_unset', NAME =>  
'coprocessor$1'
```

You can also set REGION_REPLICATION:

```
hbase> alter 't1', { REGION_REPLICATION => 2 }
```

There could be more than one alteration in one command:

```
hbase> alter 't1', { NAME => 'f1', VERSIONS => 3 },
```

```
{ MAX_FILESIZE => '134217728' }, { METHOD => 'delete', NAME => 'f2'
},
  OWNER => 'johndoe', METADATA => { 'mykey' => 'myvalue' }
```

```
hbase(main):063:0> list
TABLE
```

ERROR: Can't get master address from ZooKeeper; znode data == null

Here is some help for this command:
List all tables in hbase. Optional regular expression parameter could be used to filter the output. Examples:

```
hbase> list
hbase> list 'abc.*'
hbase> list 'ns:abc.*'
hbase> list 'ns:.*'
```

```
hbase(main):064:0> JPS
NameError: uninitialized constant JPS
```

```
hbase(main):065:0> jps
NameError: undefined local variable or method `jps' for #<Object:
0x234c5e41>
```

```
hbase(main):066:0> exit
Snehas-MacBook-Pro:libexec snehamishra$ jps
2629 NameNode
2709 DataNode
6679 Jps
2919 ResourceManager
5160 HQuorumPeer
2808 SecondaryNameNode
3003 NodeManager
Snehas-MacBook-Pro:libexec snehamishra$ bin/stop-hbase.sh
stopping hbasecat: /tmp/hbase-snehamishra-master.pid: No such file or
directory
```

```
localhost: stopping zookeeper.
Snehas-MacBook-Pro:libexec snehamishra$ jps
2629 NameNode
2709 DataNode
2919 ResourceManager
2808 SecondaryNameNode
7049 Jps
3003 NodeManager
Snehas-MacBook-Pro:libexec snehamishra$ bin/start-hbase.sh
```



```

localhost: starting zookeeper, logging to /usr/local/var/log/hbase/
hbase-snehamishra-zookeeper-Snehas-MBP.kc.umkc.edu.out
starting master, logging to /usr/local/var/log/hbase/hbase-
snehamishra-master-Snehas-MBP.kc.umkc.edu.out
starting regionserver, logging to /usr/local/var/log/hbase/hbase-
snehamishra-1-regionserver-Snehas-MBP.kc.umkc.edu.out
Snehas-MacBook-Pro:libexec snehamishra$ jps
7650 Jps
2629 NameNode
2709 DataNode
2919 ResourceManager
7319 HQuorumPeer
2808 SecondaryNameNode
7531 HRegionServer
3003 NodeManager
7373 HMaster
Snehas-MacBook-Pro:libexec snehamishra$ hbase shell
2018-06-13 19:44:03,279 WARN [main] util.NativeCodeLoader: Unable to
load native-hadoop library for your platform... using builtin-java
classes where applicable
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/usr/local/Cellar/hbase/1.2.6_2/
libexec/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/impl/
StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/local/Cellar/hadoop/3.1.0/
libexec/share/hadoop/common/lib/slf4j-log4j12-1.7.25.jar!/org/slf4j/
impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an
explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Log4jLoggerFactory]
HBase Shell; enter 'help<RETURN>' for list of supported commands.
Type "exit<RETURN>" to leave the HBase Shell
Version 1.2.6, rUnknown, Mon May 29 02:25:32 CDT 2017

```

```

hbase(main):001:0> list
TABLE
location
student_course
2 row(s) in 0.1640 seconds

=> ["location", "student_course"]
hbase(main):002:0> status
1 active master, 0 backup masters, 1 servers, 0 dead, 4.0000 average
load

hbase(main):003:0> balancer
true
0 row(s) in 0.0240 seconds

```

```
hbase(main):004:0> balance_switch
```

```
ERROR: wrong number of arguments (0 for 1)
```

Here is some help for this command:

Enable/Disable balancer. Returns previous balancer state.

Examples:

```
hbase> balance_switch true
hbase> balance_switch false
```

```
hbase(main):005:0> balance_switch true
true
0 row(s) in 0.0280 seconds
```

```
hbase(main):006:0> create 'user_action','user','action'
0 row(s) in 1.3600 seconds
```

```
=> Hbase::Table - user_action
```

```
hbase(main):007:0> describe 'user_action'
```

```
Table user_action is ENABLED
```

```
user_action
```

```
COLUMN FAMILIES DESCRIPTION
```

```
{NAME => 'action', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY =>
'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING
=> 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SC
OPE => '0'}
```

```
{NAME => 'user', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY =>
'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING =>
'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS => '0',
BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOP
E => '0'}
```

```
2 row(s) in 0.0850 seconds
```

```
hbase(main):008:0> put 'user_action', 'row1','user:ID','1'
0 row(s) in 0.0810 seconds
```

```
hbase(main):009:0> put 'user_action', 'row1','user:name','Sneha'
0 row(s) in 0.0090 seconds
```

```
hbase(main):010:0> put 'user_action', 'row1','action','register'
0 row(s) in 0.0100 seconds
```

```
hbase(main):011:0> scan 'user_action'
```

```
ROW                                COLUMN+CELL
  row1                             column=action:,
timestamp=1528937412865, value=register
```

```

    row1                                column=user:ID,
timestamp=1528937380374, value=1
    row1                                column=user:name,
timestamp=1528937396551, value=Sneha
1 row(s) in 0.0380 seconds

hbase(main):012:0> put 'user_action', 'row2','action','login'
0 row(s) in 0.0030 seconds

hbase(main):013:0> put 'user_action', 'row2','user:name','Sneha'
0 row(s) in 0.0040 seconds

hbase(main):014:0> put 'user_action', 'row2','user:ID','1'
0 row(s) in 0.0030 seconds

hbase(main):015:0> put 'user_action', 'row3','user:name','Aditya'
0 row(s) in 0.0030 seconds

hbase(main):016:0> put 'user_action', 'row3','user:ID','2'
0 row(s) in 0.0070 seconds

hbase(main):017:0> put 'user_action', 'row3','action','login'
0 row(s) in 0.0070 seconds

hbase(main):018:0> scan 'user_action'
ROW                                COLUMN+CELL
    row1                                column=action:,
timestamp=1528937412865, value=register
    row1                                column=user:ID,
timestamp=1528937380374, value=1
    row1                                column=user:name,
timestamp=1528937396551, value=Sneha
    row2                                column=action:,
timestamp=1528937438186, value=login
    row2                                column=user:ID,
timestamp=1528937478482, value=1
    row2                                column=user:name,
timestamp=1528937469465, value=Sneha
    row3                                column=action:,
timestamp=1528937526284, value=login
    row3                                column=user:ID,
timestamp=1528937515104, value=2
    row3                                column=user:name,
timestamp=1528937503720, value=Aditya
3 row(s) in 0.0280 seconds

hbase(main):019:0> create 'user_friend','user','friend'
0 row(s) in 1.2640 seconds

```

```
=> Hbase::Table - user_friend
hbase(main):020:0> describe 'user_friend'
Table user_friend is ENABLED
user_friend
COLUMN FAMILIES DESCRIPTION
{NAME => 'friend', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY =>
'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING
=> 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SC
OPE => '0'}
{NAME => 'user', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY =>
'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING =>
'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS => '0',
BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOP
E => '0'}
2 row(s) in 0.0240 seconds
```

```
hbase(main):021:0> put 'user_friend','user:ID','1'
```

ERROR: wrong number of arguments (3 for 4)

Here is some help for this command:

Put a cell 'value' at specified table/row/column and optionally timestamp coordinates. To put a cell value into table 'ns1:t1' or 't1' at row 'r1' under column 'c1' marked with the time 'ts1', do:

```
hbase> put 'ns1:t1', 'r1', 'c1', 'value'
hbase> put 't1', 'r1', 'c1', 'value'
hbase> put 't1', 'r1', 'c1', 'value', ts1
hbase> put 't1', 'r1', 'c1', 'value',
{ATTRIBUTES=>{'mykey'=>'myvalue'}}
hbase> put 't1', 'r1', 'c1', 'value', ts1,
{ATTRIBUTES=>{'mykey'=>'myvalue'}}
hbase> put 't1', 'r1', 'c1', 'value', ts1, {VISIBILITY=>'PRIVATE|
SECRET'}
```

The same commands also can be run on a table reference. Suppose you had a reference t to table 't1', the corresponding command would be:

```
hbase> t.put 'r1', 'c1', 'value', ts1,
{ATTRIBUTES=>{'mykey'=>'myvalue'}}
```

```
hbase(main):022:0> put 'user_friend','row1','user:ID','1'
0 row(s) in 0.0110 seconds
```

```
hbase(main):023:0> put 'user_friend','row1','user:name','Sneha'
```

0 row(s) in 0.0050 seconds

hbase(main):024:0> put 'user_friend','row1','friend:name','Aditya'
0 row(s) in 0.0130 seconds

hbase(main):025:0> put 'user_friend','row1','friend:ID','10'
0 row(s) in 0.0030 seconds

hbase(main):026:0> put 'user_friend','row2','friend:name','Swati'
0 row(s) in 0.0060 seconds

hbase(main):027:0> put 'user_friend','row2','friend:ID','12'
0 row(s) in 0.0030 seconds

hbase(main):028:0> scan 'user_friend'

ROW	COLUMN+CELL
row1	column=friend:ID, timestamp=1528937826330, value=10
row1	column=friend:name, timestamp=1528937816627, value=Aditya
row1	column=user:ID, timestamp=1528937787330, value=1
row1	column=user:name, timestamp=1528937797559, value=Sneha
row2	column=friend:ID, timestamp=1528937865821, value=12
row2	column=friend:name, timestamp=1528937857642, value=Swati

2 row(s) in 0.0270 seconds

hbase(main):029:0> create 'access_log','user','log'
0 row(s) in 1.2520 seconds

=> Hbase::Table - access_log
hbase(main):030:0> describe 'access_log'
Table access_log is ENABLED
access_log
COLUMN FAMILIES DESCRIPTION
{NAME => 'log', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS => '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
{NAME => 'user', BLOOMFILTER => 'ROW', VERSIONS => '1', IN_MEMORY => 'false', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', MIN_VERSIONS => '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE => '0'}
E => '0'}
2 row(s) in 0.0290 seconds

```
hbase(main):031:0> put 'user_log', 'row1','user:name','Sneha'
2018-06-13 19:59:17,704 ERROR [main] client.AsyncProcess: Failed to
get region location
org.apache.hadoop.hbase.TableNotFoundException: Table 'user_log' was
not found, got: user_friend.
    at
org.apache.hadoop.hbase.client.ConnectionManager$HConnectionImplementa
tion.locateRegionInMeta(ConnectionManager.java:1300)
    at
org.apache.hadoop.hbase.client.ConnectionManager$HConnectionImplementa
tion.locateRegion(ConnectionManager.java:1181)
    at
org.apache.hadoop.hbase.client.AsyncProcess.submit(AsyncProcess.java:
410)
    at
org.apache.hadoop.hbase.client.AsyncProcess.submit(AsyncProcess.java:
359)
    at
org.apache.hadoop.hbase.client.BufferedMutatorImpl.backgroundFlushComm
its(BufferedMutatorImpl.java:238)
    at
org.apache.hadoop.hbase.client.BufferedMutatorImpl.flush(BufferedMutat
orImpl.java:190)
    at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:
1434)
    at org.apache.hadoop.hbase.client.HTable.put(HTable.java:1018)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at
sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.j
ava:62)
    at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccess
orImpl.java:43)
    at java.lang.reflect.Method.invoke(Method.java:498)
    at
org.jruby.javasupport.JavaMethod.invokeDirectWithExceptionHandling(Jav
aMethod.java:450)
    at org.jruby.javasupport.JavaMethod.invokeDirect(JavaMethod.java:
311)
    at
org.jruby.java.invokers.InstanceMethodInvoker.call(InstanceMethodInvok
er.java:59)
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
167)
    at org.jruby.ast.CallOneArgNode.interpret(CallOneArgNode.java:57)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at org.jruby.ast.BlockNode.interpret(BlockNode.java:71)
```

```
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.java:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedMethod.java:120)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedMethod.java:134)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.java:174)
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:69)
    at org.jruby.ast.CallManyArgsNode.interpret(CallManyArgsNode.java:59)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_BLOCK(ASTInterpreter.java:111)
    at
org.jruby.runtime.InterpretedBlock.evalBlockBody(InterpretedBlock.java:374)
    at org.jruby.runtime.InterpretedBlock.yield(InterpretedBlock.java:295)
    at
org.jruby.runtime.InterpretedBlock.yieldSpecific(InterpretedBlock.java:229)
    at org.jruby.runtime.Block.yieldSpecific(Block.java:99)
    at org.jruby.ast.ZYieldNode.interpret(ZYieldNode.java:25)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at org.jruby.ast.BlockNode.interpret(BlockNode.java:71)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.java:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedMethod.java:169)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.java:191)
    at
org.jruby.runtime.callsite.CachingCallSite.callBlock(CachingCallSite.java:142)
    at
org.jruby.runtime.callsite.CachingCallSite.callIter(CachingCallSite.java:153)
```

```
    at
org.jruby.ast.FCallNoArgBlockNode.interpret(FCallNoArgBlockNode.java:
32)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.jav
a:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:120)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:134)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.ja
va:174)
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
69)
    at
org.jruby.ast.FCallManyArgsNode.interpret(FCallManyArgsNode.java:60)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.jav
a:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:120)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.ja
va:165)
    at org.jruby.RubyClass.finvoke(RubyClass.java:573)
    at org.jruby.RubyBasicObject.send(RubyBasicObject.java:2801)
    at org.jruby.RubyKernel.send(RubyKernel.java:2117)
    at org.jruby.RubyKernel$$$send.call(RubyKernel$$$send.gen:65535)
    at
org.jruby.internal.runtime.methods.DynamicMethod.call(DynamicMethod.ja
va:181)
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSit
e.java:282)
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
71)
    at
org.jruby.ast.FCallSpecialArgNode.interpret(FCallSpecialArgNode.java:
45)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
```



```
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_BLOCK(ASTInterpreter.java
:111)
    at
org.jruby.runtime.InterpretedBlock.evalBlockBody(InterpretedBlock.java
:374)
    at org.jruby.runtime.InterpretedBlock.yield(InterpretedBlock.java:
295)
    at
org.jruby.runtime.InterpretedBlock.yieldSpecific(InterpretedBlock.java
:229)
        at org.jruby.runtime.Block.yieldSpecific(Block.java:99)
        at org.jruby.ast.ZYieldNode.interpret(ZYieldNode.java:25)
        at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
        at org.jruby.ast.RescueNode.executeBody(RescueNode.java:216)
    at
org.jruby.ast.RescueNode.interpretWithJavaExceptions(RescueNode.java:
120)
        at org.jruby.ast.RescueNode.interpret(RescueNode.java:110)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.jav
a:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:120)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.ja
va:165)
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSit
e.java:272)
    at
org.jruby.runtime.callsite.CachingCallSite.callBlock(CachingCallSite.j
ava:80)
    at
org.jruby.runtime.callsite.CachingCallSite.callIter(CachingCallSite.ja
va:89)
    at
org.jruby.ast.FCallSpecialArgBlockNode.interpret(FCallSpecialArgBlockN
ode.java:42)
        at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
        at org.jruby.ast.RescueNode.executeBody(RescueNode.java:216)
    at
org.jruby.ast.RescueNode.interpretWithJavaExceptions(RescueNode.java:
120)
        at org.jruby.ast.RescueNode.interpret(RescueNode.java:110)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.jav
a:74)
```

```
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:120)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:134)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.ja
va:174)
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSit
e.java:282)
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
71)
    at
org.jruby.ast.CallSpecialArgNode.interpret(CallSpecialArgNode.java:73)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.jav
a:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:120)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:134)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.ja
va:174)
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
69)
    at
org.jruby.ast.FCallSpecialArgNode.interpret(FCallSpecialArgNode.java:
45)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.jav
a:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:120)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:134)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.ja
va:174)
```

```
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
69)
    at
org.jruby.ast.CallSpecialArgNode.interpret(CallSpecialArgNode.java:73)
    at org.jruby.ast.LocalAsgnNode.interpret(LocalAsgnNode.java:123)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at org.jruby.ast.BlockNode.interpret(BlockNode.java:71)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.jav
a:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:120)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:134)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.ja
va:174)
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSit
e.java:282)
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
71)
    at
org.jruby.ast.FCallManyArgsNode.interpret(FCallManyArgsNode.java:60)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at org.jruby.ast.RootNode.interpret(RootNode.java:129)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_EVAL(ASTInterpreter.java:
95)
    at
org.jruby.evaluator.ASTInterpreter.evalWithBinding(ASTInterpreter.java
:166)
    at org.jruby.RubyKernel.evalCommon(RubyKernel.java:1155)
    at org.jruby.RubyKernel.eval(RubyKernel.java:1112)
    at org.jruby.RubyKernel$$0$3$eval.call(RubyKernel$$0$3$eval.gen:
65535)
    at
org.jruby.internal.runtime.methods.DynamicMethod.call(DynamicMethod.ja
va:181)
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
69)
    at
rubyjit.IRB::Workspace#evaluate_2B40A7B35DF97C801F371648C2CA40C78B0EDB
57.__file__(file:/usr/local/Cellar/hbase/1.2.6_2/libexec/lib/jruby-
```

```
complete-1.6.8.jar!/META-INF/jruby.home/lib/ruby/1.8/irb/workspace.rb:
81)
    at
    rubyjit.IRB::WorkSpace#evaluate_2B40A7B35DF97C801F371648C2CA40C78B0EDB
57.__file__(file:/usr/local/Cellar/hbase/1.2.6_2/libexec/lib/jruby-
complete-1.6.8.jar!/META-INF/jruby.home/lib/ruby/1.8/irb/workspace.rb)
    at
    org.jruby.internal.runtime.methods.JittedMethod.call(JittedMethod.java
:107)
    at
    org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
69)
    at org.jruby.ast.CallManyArgsNode.interpret(CallManyArgsNode.java:
59)
    at org.jruby.ast.FCallOneArgNode.interpret(FCallOneArgNode.java:
36)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at org.jruby.ast.BlockNode.interpret(BlockNode.java:71)
    at
    org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.jav
a:74)
    at
    org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedM
ethod.java:233)
    at
    org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.ja
va:215)
    at
    org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
201)
    at org.jruby.ast.CallTwoArgNode.interpret(CallTwoArgNode.java:59)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at org.jruby.ast.BlockNode.interpret(BlockNode.java:71)
    at org.jruby.ast.RescueNode.executeBody(RescueNode.java:216)
    at
    org.jruby.ast.RescueNode.interpretWithJavaExceptions(RescueNode.java:
120)
    at org.jruby.ast.RescueNode.interpret(RescueNode.java:110)
    at org.jruby.ast.BeginNode.interpret(BeginNode.java:83)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at org.jruby.ast.BlockNode.interpret(BlockNode.java:71)
    at
    org.jruby.evaluator.ASTInterpreter.INTERPRET_BLOCK(ASTInterpreter.java
:111)
    at
    org.jruby.runtime.InterpretedBlock.evalBlockBody(InterpretedBlock.java
:374)
    at org.jruby.runtime.InterpretedBlock.yield(InterpretedBlock.java:
295)
```

```
    at
org.jruby.runtime.InterpretedBlock.yieldSpecific(InterpretedBlock.java
:229)
    at org.jruby.runtime.Block.yieldSpecific(Block.java:99)
    at
rubyjit.IRB::Irb#signal_status_6F6D59AFE4A05E3406BD6C100B588086254C188
B.chained_0_ensure_1$RUBY$__ensure__(file:/usr/local/Cellar/hbase/
1.2.6_2/libexec/lib/jruby-complete-1.6.8.jar!/META-INF/jruby.home/lib/
ruby/1.8/irb.rb:271)
    at
rubyjit.IRB::Irb#signal_status_6F6D59AFE4A05E3406BD6C100B588086254C188
B.__file__(file:/usr/local/Cellar/hbase/1.2.6_2/libexec/lib/jruby-
complete-1.6.8.jar!/META-INF/jruby.home/lib/ruby/1.8/irb.rb:270)
    at
rubyjit.IRB::Irb#signal_status_6F6D59AFE4A05E3406BD6C100B588086254C188
B.__file__(file:/usr/local/Cellar/hbase/1.2.6_2/libexec/lib/jruby-
complete-1.6.8.jar!/META-INF/jruby.home/lib/ruby/1.8/irb.rb)
    at
org.jruby.internal.runtime.methods.JittedMethod.call(JittedMethod.java
:187)
    at
org.jruby.runtime.callsite.CachingCallSite.callBlock(CachingCallSite.j
ava:176)
    at
org.jruby.runtime.callsite.CachingCallSite.callIter(CachingCallSite.ja
va:187)
    at
org.jruby.ast.FCallOneArgBlockNode.interpret(FCallOneArgBlockNode.java
:34)
        at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
        at
org.jruby.evaluator.ASTInterpreter.INTERPRET_BLOCK(ASTInterpreter.java
:111)
        at
org.jruby.runtime.InterpretedBlock.evalBlockBody(InterpretedBlock.java
:374)
        at
org.jruby.runtime.InterpretedBlock.yieldSpecific(InterpretedBlock.java
:260)
            at org.jruby.runtime.Block.yieldSpecific(Block.java:117)
            at org.jruby.ast.YieldTwoNode.interpret(YieldTwoNode.java:31)
            at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
            at org.jruby.ast.IfNode.interpret(IfNode.java:117)
            at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
            at org.jruby.ast.BlockNode.interpret(BlockNode.java:71)
            at org.jruby.ast.RescueNode.executeBody(RescueNode.java:216)
            at
org.jruby.ast.RescueNode.interpretWithJavaExceptions(RescueNode.java:
120)
```

```
    at org.jruby.ast.RescueNode.interpret(RescueNode.java:110)
    at org.jruby.ast.BeginNode.interpret(BeginNode.java:83)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_BLOCK(ASTInterpreter.java
:111)
    at
org.jruby.runtime.InterpretedBlock.evalBlockBody(InterpretedBlock.java
:374)
    at org.jruby.runtime.InterpretedBlock.yield(InterpretedBlock.java:
295)
    at
org.jruby.runtime.InterpretedBlock.yieldSpecific(InterpretedBlock.java
:229)
    at org.jruby.runtime.Block.yieldSpecific(Block.java:99)
    at org.jruby.RubyKernel.loop(RubyKernel.java:1439)
    at org.jruby.RubyKernel$$__loop.call(RubyKernel$$__loop.gen:
65535)
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSit
e.java:302)
    at
org.jruby.runtime.callsite.CachingCallSite.callBlock(CachingCallSite.j
ava:144)
    at
org.jruby.runtime.callsite.CachingCallSite.callIter(CachingCallSite.ja
va:153)
    at
org.jruby.ast.FCallNoArgBlockNode.interpret(FCallNoArgBlockNode.java:
32)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_BLOCK(ASTInterpreter.java
:111)
    at
org.jruby.runtime.InterpretedBlock.evalBlockBody(InterpretedBlock.java
:374)
    at org.jruby.runtime.InterpretedBlock.yield(InterpretedBlock.java:
347)
    at org.jruby.runtime.InterpretedBlock.yield(InterpretedBlock.java:
304)
    at org.jruby.runtime.Block.yield(Block.java:130)
    at org.jruby.RubyContinuation.enter(RubyContinuation.java:106)
    at org.jruby.RubyKernel.rbCatch(RubyKernel.java:1212)
    at
org.jruby.RubyKernel$$__rbCatch.call(RubyKernel$$__rbCatch.gen:
65535)
```

```
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSite.java:322)
    at
org.jruby.runtime.callsite.CachingCallSite.callBlock(CachingCallSite.java:178)
    at
org.jruby.runtime.callsite.CachingCallSite.callIter(CachingCallSite.java:187)
    at
org.jruby.ast.FCallOneArgBlockNode.interpret(FCallOneArgBlockNode.java:34)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at org.jruby.ast.BlockNode.interpret(BlockNode.java:71)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.java:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedMethod.java:169)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.java:191)
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSite.java:302)
    at
org.jruby.runtime.callsite.CachingCallSite.callBlock(CachingCallSite.java:144)
    at
org.jruby.runtime.callsite.CachingCallSite.callIter(CachingCallSite.java:153)
    at
org.jruby.ast.CallNoArgBlockNode.interpret(CallNoArgBlockNode.java:64)
    at org.jruby.ast.NewlineNode.interpret(NewlineNode.java:104)
    at org.jruby.ast.BlockNode.interpret(BlockNode.java:71)
    at
org.jruby.evaluator.ASTInterpreter.INTERPRET_METHOD(ASTInterpreter.java:74)
    at
org.jruby.internal.runtime.methods.InterpretedMethod.call(InterpretedMethod.java:147)
    at
org.jruby.internal.runtime.methods.DefaultMethod.call(DefaultMethod.java:183)
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSite.java:292)
```

```

    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
135)
    at usr.local.Cellar.hbase.$1_dot_2_dot_6_2.libexec.bin.
$_dot_dot_.bin.hirb.block_2$RUBY$start(/usr/local/Cellar/hbase/
1.2.6_2/libexec/bin/./bin/hirb.rb:205)
    at usr$local$Cellar$hbase$$_1_dot_2_dot_6_2$libexec$bin$
$_dot_dot_$bin$hirb$block_2$RUBY$start.call(usr$local$Cellar$hbase$
$_1_dot_2_dot_6_2$libexec$bin$$_dot_dot_$bin$hirb$block_2$RUBY$start:
65535)
    at org.jruby.runtime.CompiledBlock.yield(CompiledBlock.java:112)
    at org.jruby.runtime.CompiledBlock.yield(CompiledBlock.java:95)
    at org.jruby.runtime.Block.yield(Block.java:130)
    at org.jruby.RubyContinuation.enter(RubyContinuation.java:106)
    at org.jruby.RubyKernel.rbCatch(RubyKernel.java:1212)
    at
org.jruby.RubyKernel$$$_1$0$rbCatch.call(RubyKernel$$$_1$0$rbCatch.gen:
65535)
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSit
e.java:322)
    at
org.jruby.runtime.callsite.CachingCallSite.callBlock(CachingCallSite.j
ava:178)
    at
org.jruby.runtime.callsite.CachingCallSite.callIter(CachingCallSite.ja
va:187)
    at usr.local.Cellar.hbase.$1_dot_2_dot_6_2.libexec.bin.
$_dot_dot_.bin.hirb.method__5$RUBY$start(/usr/local/Cellar/hbase/
1.2.6_2/libexec/bin/./bin/hirb.rb:204)
    at usr$local$Cellar$hbase$$_1_dot_2_dot_6_2$libexec$bin$
$_dot_dot_$bin$hirb$method__5$RUBY$start.call(usr$local$Cellar$hbase$
$_1_dot_2_dot_6_2$libexec$bin$$_dot_dot_$bin$hirb$method__5$RUBY$start:
65535)
    at
org.jruby.internal.runtime.methods.DynamicMethod.call(DynamicMethod.ja
va:203)
    at
org.jruby.internal.runtime.methods.CompiledMethod.call(CompiledMethod.
java:255)
    at
org.jruby.runtime.callsite.CachingCallSite.cacheAndCall(CachingCallSit
e.java:292)
    at
org.jruby.runtime.callsite.CachingCallSite.call(CachingCallSite.java:
135)
    at usr.local.Cellar.hbase.$1_dot_2_dot_6_2.libexec.bin.
$_dot_dot_.bin.hirb.__file__(/usr/local/Cellar/hbase/1.2.6_2/libexec/
bin/./bin/hirb.rb:210)

```



```

    at usr.local.Cellar.hbase.$1_dot_2_dot_6_2.libexec.bin.
$_dot_dot_.bin.hirb.load(/usr/local/Cellar/hbase/1.2.6_2/libexec/
bin/./bin/hirb.rb)
    at org.jruby.Ruby.runScript(Ruby.java:697)
    at org.jruby.Ruby.runScript(Ruby.java:690)
    at org.jruby.Ruby.runNormally(Ruby.java:597)
    at org.jruby.Ruby.runFromMain(Ruby.java:446)
    at org.jruby.Main.doRunFromMain(Main.java:369)
    at org.jruby.Main.internalRun(Main.java:258)
    at org.jruby.Main.run(Main.java:224)
    at org.jruby.Main.run(Main.java:208)
    at org.jruby.Main.main(Main.java:188)

```

ERROR: Failed 1 action: Table 'user_log' was not found, got:
user_friend.: 1 time,

Here is some help for this command:

Put a cell 'value' at specified table/row/column and optionally
timestamp coordinates. To put a cell value into table 'ns1:t1' or
't1'

at row 'r1' under column 'c1' marked with the time 'ts1', do:

```

hbase> put 'ns1:t1', 'r1', 'c1', 'value'
hbase> put 't1', 'r1', 'c1', 'value'
hbase> put 't1', 'r1', 'c1', 'value', ts1
hbase> put 't1', 'r1', 'c1', 'value',
{ATTRIBUTES=>{'mykey'=>'myvalue'}}
hbase> put 't1', 'r1', 'c1', 'value', ts1,
{ATTRIBUTES=>{'mykey'=>'myvalue'}}
hbase> put 't1', 'r1', 'c1', 'value', ts1, {VISIBILITY=>'PRIVATE|
SECRET'}

```

The same commands also can be run on a table reference. Suppose you
had a reference

t to table 't1', the corresponding command would be:

```

hbase> t.put 'r1', 'c1', 'value', ts1,
{ATTRIBUTES=>{'mykey'=>'myvalue'}}

```

```

hbase(main):032:0> put 'access_log', 'row1','user:name','Sneha'
0 row(s) in 0.0070 seconds

```

```

hbase(main):033:0> put 'access_log', 'row1','user:ID','1'
0 row(s) in 0.0040 seconds

```

```

hbase(main):034:0> put 'access_log', 'row1','log:time','1pm'
0 row(s) in 0.0050 seconds

```

```
hbase(main):035:0> put 'access_log', 'row1','log:ip','10.10.1.70'
0 row(s) in 0.0030 seconds
```

```
hbase(main):036:0> put 'access_log', 'row1','log:url','g.com'
0 row(s) in 0.0070 seconds
```

```
hbase(main):037:0> scan 'access_log'
hbase(main):038:0> scan 'access_log'
hbase(main):039:0> ' '
SyntaxError: (hbase):38: syntax error, unexpected tIDENTIFIER
```

```
scan 'access_log'
      ^
```

```
hbase(main):040:0> scan 'access_log'
ROW                                COLUMN+CELL
  row1                             column=log:ip,
timestamp=1528938077930, value=10.10.1.70
  row1                             column=log:time,
timestamp=1528938052733, value=1pm
  row1                             column=log:url,
timestamp=1528938095874, value=g.com
  row1                             column=user:ID,
timestamp=1528938002044, value=1
  row1                             column=user:name,
timestamp=1528937989398, value=Sneha
1 row(s) in 0.0080 seconds
```

```
hbase(main):041:0> scan 'student_course'
ROW                                COLUMN+CELL
  row                               column=course_cf2:ID, timestamp=1528934897050, value=CS590
  row                               column=course_cf2:Instructor, timestamp=1528934915581, value=MAyanka
  row                               column=course_cf2:University, timestamp=1528934930512, value=UMKC
  row                               column=student_cf1:ID, timestamp=1528934816985, value=1
  row                               column=student_cf1:name, timestamp=1528934866397, value=sneha
  row1                             column=course_cf2:ID, timestamp=1528934998214, value=CS490
  row1                             column=course_cf2:Instructor, timestamp=1528934983926, value=Jason
  row1                             column=course_cf2:University, timestamp=1528934970696, value=UCM
  row1                             column=student_cf1:ID, timestamp=1528935039557, value=2
```

```
row1
column=student_cf1:name, timestamp=1528935017471, value=smita
2 row(s) in 0.0460 seconds
```

```
hbase(main):042:0> scan 'user_actiuon'
ROW
```

COLUMN+CELL

ERROR: Unknown table user_actiuon!

Here is some help for this command:

Scan a table; pass table name and optionally a dictionary of scanner specifications. Scanner specifications may include one or more of: TIMERANGE, FILTER, LIMIT, STARTROW, STOPROW, ROWPREFIXFILTER, TIMESTAMP, MAXLENGTH or COLUMNS, CACHE or RAW, VERSIONS, ALL_METRICS or METRICS

If no columns are specified, all columns will be scanned.
To scan all members of a column family, leave the qualifier empty as in
'col_family'.

The filter can be specified in two ways:

1. Using a filterString – more information on this is available in the Filter Language document attached to the HBASE-4176 JIRA
2. Using the entire package name of the filter.

If you wish to see metrics regarding the execution of the scan, the ALL_METRICS boolean should be set to true. Alternatively, if you would prefer to see only a subset of the metrics, the METRICS array can be defined to include the names of only the metrics you care about.

Some examples:

```
hbase> scan 'hbase:meta'
hbase> scan 'hbase:meta', {COLUMNS => 'info:regioninfo'}
hbase> scan 'ns1:t1', {COLUMNS => ['c1', 'c2'], LIMIT => 10,
STARTROW => 'xyz'}
hbase> scan 't1', {COLUMNS => ['c1', 'c2'], LIMIT => 10, STARTROW =>
'xyz'}
hbase> scan 't1', {COLUMNS => 'c1', TIMERANGE => [1303668804,
1303668904]}
hbase> scan 't1', {REVERSED => true}
hbase> scan 't1', {ALL_METRICS => true}
hbase> scan 't1', {METRICS => ['RPC_RETRIES', 'ROWS_FILTERED']}
hbase> scan 't1', {ROWPREFIXFILTER => 'row2', FILTER => "
(QualifierFilter (>=, 'binary:xyz')) AND (TimestampsFilter ( 123,
456))"}
hbase> scan 't1', {FILTER =>
org.apache.hadoop.hbase.filter.ColumnPaginationFilter.new(1, 0)}
```

```
hbase> scan 't1', {CONSISTENCY => 'TIMELINE'}
```

For setting the Operation Attributes

```
hbase> scan 't1', { COLUMNS => ['c1', 'c2'], ATTRIBUTES => {'mykey'
=> 'myvalue'}}
hbase> scan 't1', { COLUMNS => ['c1', 'c2'], AUTHORIZATIONS =>
['PRIVATE','SECRET']}
```

For experts, there is an additional option `-- CACHE_BLOCKS` -- which switches block caching for the scanner on (true) or off (false). By default it is enabled. Examples:

```
hbase> scan 't1', {COLUMNS => ['c1', 'c2'], CACHE_BLOCKS => false}
```

Also for experts, there is an advanced option `-- RAW` -- which instructs the scanner to return all cells (including delete markers and uncollected deleted cells). This option cannot be combined with requesting specific COLUMNS. Disabled by default. Example:

```
hbase> scan 't1', {RAW => true, VERSIONS => 10}
```

Besides the default `'toStringBinary'` format, `'scan'` supports custom formatting by column. A user can define a `FORMATTER` by adding it to the column name in the scan specification. The `FORMATTER` can be stipulated:

1. either as a `org.apache.hadoop.hbase.util.Bytes` method name (e.g, `toInt`, `toString`)
2. or as a custom class followed by method name: e.g. `'c(MyFormatterClass).format'`.

Example formatting `cf:qualifier1` and `cf:qualifier2` both as Integers:

```
hbase> scan 't1', {COLUMNS => ['cf:qualifier1:toInt',
'cf:qualifier2:c(org.apache.hadoop.hbase.util.Bytes).toInt'] }
```

Note that you can specify a `FORMATTER` by column only (`cf:qualifier`). You cannot specify a `FORMATTER` for all columns of a column family.

Scan can also be used directly from a table, by first getting a reference to a table, like such:

```
hbase> t = get_table 't'
hbase> t.scan
```

Note in the above situation, you can still provide all the filtering, columns, options, etc as described above.

```
hbase(main):043:0> scan 'user_action'
ROW                                COLUMN+CELL
  row1                             column=action:,
timestamp=1528937412865, value=register
  row1                             column=user:ID,
timestamp=1528937380374, value=1      column=user:name,
  row1                             column=action:,
timestamp=1528937396551, value=Sneha  column=user:ID,
  row2                             column=user:name,
timestamp=1528937438186, value=login  column=action:,
  row2                             column=user:ID,
timestamp=1528937478482, value=1      column=user:name,
  row2                             column=action:,
timestamp=1528937469465, value=Sneha  column=user:ID,
  row3                             column=user:name,
timestamp=1528937526284, value=login  column=action:,
  row3                             column=user:ID,
timestamp=1528937515104, value=2      column=user:name,
  row3                             column=action:,
timestamp=1528937503720, value=Aditya
3 row(s) in 0.0080 seconds

hbase(main):044:0>
```