

HBase shell commands

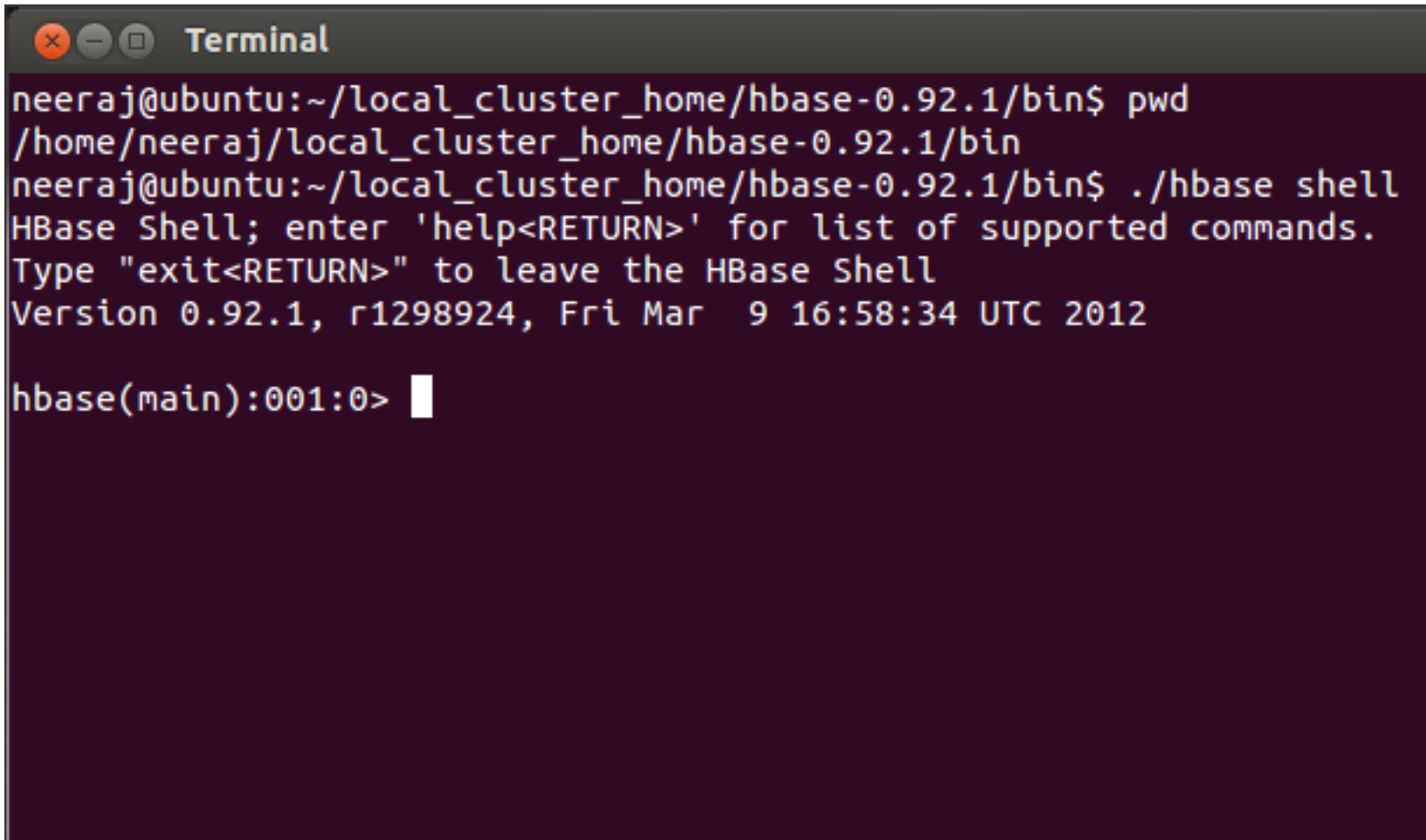


Agenda

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Hbase shell

`./hbase shell`

A terminal window titled "Terminal" with standard Ubuntu window controls (close, minimize, maximize). The terminal shows a user named "neeraj" at a machine named "ubuntu" in the directory "~/local_cluster_home/hbase-0.92.1/bin". The user runs "pwd" and then "./hbase shell". The terminal displays the HBase Shell version information and the prompt "hbase(main):001:0>".

```
neeraj@ubuntu:~/local_cluster_home/hbase-0.92.1/bin$ pwd
/home/neeraj/local_cluster_home/hbase-0.92.1/bin
neeraj@ubuntu:~/local_cluster_home/hbase-0.92.1/bin$ ./hbase shell
HBase Shell; enter 'help<RETURN>' for list of supported commands.
Type "exit<RETURN>" to leave the HBase Shell
Version 0.92.1, r1298924, Fri Mar  9 16:58:34 UTC 2012

hbase(main):001:0> 
```

List all tables

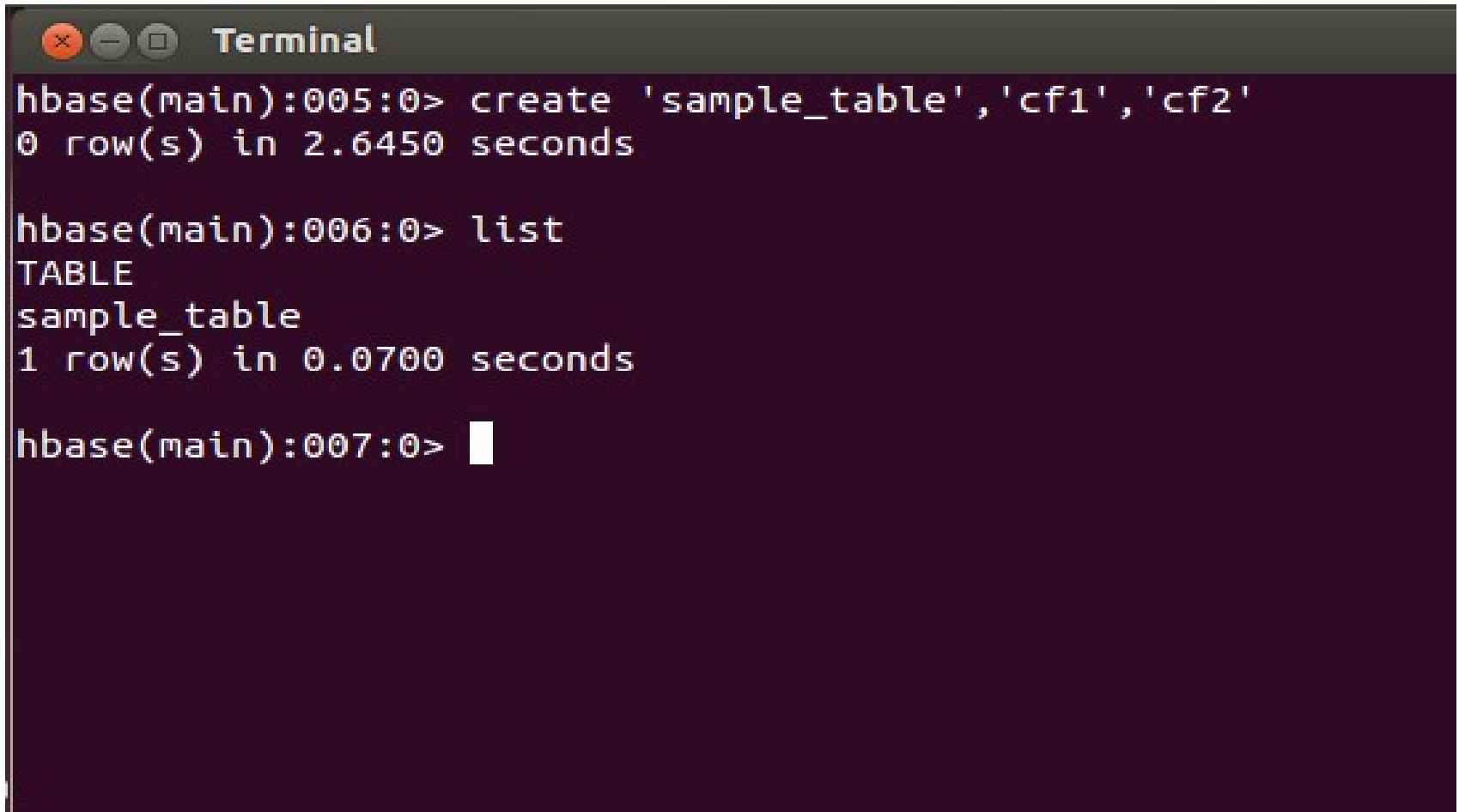
list

```
Terminal
hbase(main):002:0> list
TABLE
sample_table
1 row(s) in 0.0360 seconds

hbase(main):003:0> █
```

Create table

create <<table name>>, <<column family 1>>, <<column family 2>> ..<<column family n>>

A terminal window titled "Terminal" with standard macOS window controls (red, yellow, green buttons). The terminal has a dark purple background with white text. It shows the execution of HBase commands: 'create' to create a table with two column families, 'list' to verify the table's existence, and a prompt for a third command.

```
hbase(main):005:0> create 'sample_table','cf1','cf2'
0 row(s) in 2.6450 seconds

hbase(main):006:0> list
TABLE
sample_table
1 row(s) in 0.0700 seconds

hbase(main):007:0> 
```

Describe a table

describe <<table name>>

```
Terminal
hbase(main):017:0> list
TABLE
sample_table
1 row(s) in 0.0470 seconds

hbase(main):018:0> describe 'sample_table'
DESCRIPTION                                     ENABLED
{NAME => 'sample_table', FAMILIES => [{NAME => 'cf1', BLO true
OMFILTER => 'NONE', REPLICATION_SCOPE => '0', VERSIONS =>
'3', COMPRESSION => 'NONE', MIN_VERSIONS => '0', TTL =>
'2147483647', BLOCKSIZE => '65536', IN_MEMORY => 'false',
BLOCKCACHE => 'true'}, {NAME => 'cf2', BLOOMFILTER => 'N
ONE', REPLICATION_SCOPE => '0', VERSIONS => '3', COMPRESS
ION => 'NONE', MIN_VERSIONS => '0', TTL => '2147483647',
BLOCKSIZE => '65536', IN_MEMORY => 'false', BLOCKCACHE =>
'true'}}]}
1 row(s) in 0.0500 seconds

hbase(main):019:0> █
```

RDBMS table vs HBase table

Key	Value		
	cf1		cf2
	qf1	qf2	qf1
row1	value1	value2	value3
row2	value4		

ROW	COLUMN+CELL
row1	column=cf1:qf1, timestamp=1350804873477, value=value1
row1	column=cf1:qf2, timestamp=1350804992484, value=value2
row1	column=cf2:qf1, timestamp=1350805003788, value=value3
row2	column=cf1:qf1, timestamp=1350812449169, value=value4

Insert data into table

put <<table name>>, <<row key>>, <<column family : qualifier>>, <<value>>

```
hbase(main):007:0> put 'sample_table','row1','cf1:qf1','value1'  
0 row(s) in 0.4990 seconds
```

```
hbase(main):008:0> put 'sample_table','row1','cf1:qf2','value2'  
0 row(s) in 0.0090 seconds
```

```
hbase(main):009:0> put 'sample_table','row1','cf2:qf1','value3'  
0 row(s) in 0.0090 seconds
```

```
hbase(main):010:0> █
```


Scan a table

scan <<table name>>

```
Terminal
hbase(main):008:0> list
TABLE
sample_table
1 row(s) in 0.0290 seconds

hbase(main):009:0> scan 'sample_table'
ROW          COLUMN+CELL
 row1        column=cf1:qf1, timestamp=1350804873477, value=value1
 row1        column=cf1:qf2, timestamp=1350804992484, value=value2
 row1        column=cf2:qf1, timestamp=1350805003788, value=value3
 row2        column=cf1:qf1, timestamp=1350812449169, value=value4
2 row(s) in 0.0450 seconds

hbase(main):010:0> 
```

Get data from a table

get <<table name>>, <<row key>>

```
Terminal
hbase(main):005:0> list
TABLE
sample_table
1 row(s) in 0.0460 seconds

hbase(main):006:0> scan 'sample_table'
ROW                                COLUMN+CELL
row1                                column=cf1:qf1, timestamp=1350804873477, value=value1
row1                                column=cf1:qf2, timestamp=1350804992484, value=value2
row1                                column=cf2:qf1, timestamp=1350805003788, value=value3
row2                                column=cf1:qf1, timestamp=1350812449169, value=value4
2 row(s) in 0.0380 seconds

hbase(main):007:0> get 'sample_table','row1'
COLUMN                                CELL
cf1:qf1                                timestamp=1350804873477, value=value1
cf1:qf2                                timestamp=1350804992484, value=value2
cf2:qf1                                timestamp=1350805003788, value=value3
3 row(s) in 0.0290 seconds

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

Advanced get

```
hbase(main):013:0> list
TABLE
sample_table
1 row(s) in 0.0240 seconds

hbase(main):014:0> scan 'sample_table'
ROW                                COLUMN+CELL
  row1                             column=cf1:qf1, timestamp=1350905342577, value=value1
  row1                             column=cf1:qf2, timestamp=1350905347202, value=value2
  row1                             column=cf2:qf1, timestamp=1350905354409, value=value3
  row2                             column=cf1:qf1, timestamp=1350905364540, value=value4
2 row(s) in 0.0260 seconds

hbase(main):015:0> get 'sample_table','row1'
COLUMN                                CELL
  cf1:qf1                           timestamp=1350905342577, value=value1
  cf1:qf2                           timestamp=1350905347202, value=value2
  cf2:qf1                           timestamp=1350905354409, value=value3
3 row(s) in 0.0310 seconds

hbase(main):016:0> get 'sample_table','row1','cf1'
COLUMN                                CELL
  cf1:qf1                           timestamp=1350905342577, value=value1
  cf1:qf2                           timestamp=1350905347202, value=value2
2 row(s) in 0.0140 seconds

hbase(main):017:0> get 'sample_table','row1','cf1:qf2'
COLUMN                                CELL
  cf1:qf2                           timestamp=1350905347202, value=value2
1 row(s) in 0.0070 seconds
```

Disable a table

disable <<table name>>

```
Terminal

hbase(main):012:0> list
TABLE
sample_table
1 row(s) in 0.0460 seconds

hbase(main):013:0> scan 'sample_table'
ROW          COLUMN+CELL
 row1        column=cf1:qf1, timestamp=1352254757688, value=value1
 row1        column=cf1:qf2, timestamp=1352254794165, value=value2
 row1        column=cf2:qf1, timestamp=1352254803419, value=value3
 row2        column=cf1:qf1, timestamp=1352254818590, value=value4
2 row(s) in 0.0320 seconds

hbase(main):014:0> disable 'sample_table'
0 row(s) in 2.2570 seconds

hbase(main):015:0> scan 'sample_table'
ROW          COLUMN+CELL

ERROR: org.apache.hadoop.hbase.client.RetriesExhaustedException: Failed after attempts=7
xceptions:
Wed Nov 07 07:51:03 IST 2012, org.apache.hadoop.hbase.client.ScannerCallable@646326e5, o
apache.hadoop.hbase.NotServingRegionException: org.apache.hadoop.hbase.NotServingRegionE
```

Enable a table

enable <<table name>>

```
Terminal
hbase(main):004:0> list
TABLE
sample_table
1 row(s) in 0.0310 seconds

hbase(main):005:0> enable 'sample_table'
0 row(s) in 2.2520 seconds

hbase(main):006:0> scan 'sample_table'
ROW                                COLUMN+CELL
 row1                             column=cf1:qf1, timestamp=1352254757688, value=value1
 row1                             column=cf1:qf2, timestamp=1352254794165, value=value2
 row1                             column=cf2:qf1, timestamp=1352254803419, value=value3
 row2                             column=cf1:qf1, timestamp=1352254818590, value=value4
2 row(s) in 0.1520 seconds

hbase(main):007:0> 
```

Delete table

disable <<table name>>

drop <<table name>>

```
Terminal
hbase(main):012:0> list
TABLE
sample_table
1 row(s) in 0.0320 seconds

hbase(main):013:0> disable 'sample_table'
0 row(s) in 2.2650 seconds

hbase(main):014:0> drop 'sample_table'
0 row(s) in 1.5930 seconds

hbase(main):015:0> list
TABLE
0 row(s) in 0.0400 seconds

hbase(main):016:0> 
```

Truncate a table

`truncate <<table name>>`

```
Terminal
hbase(main):007:0> list
TABLE
sample_table
1 row(s) in 0.0400 seconds

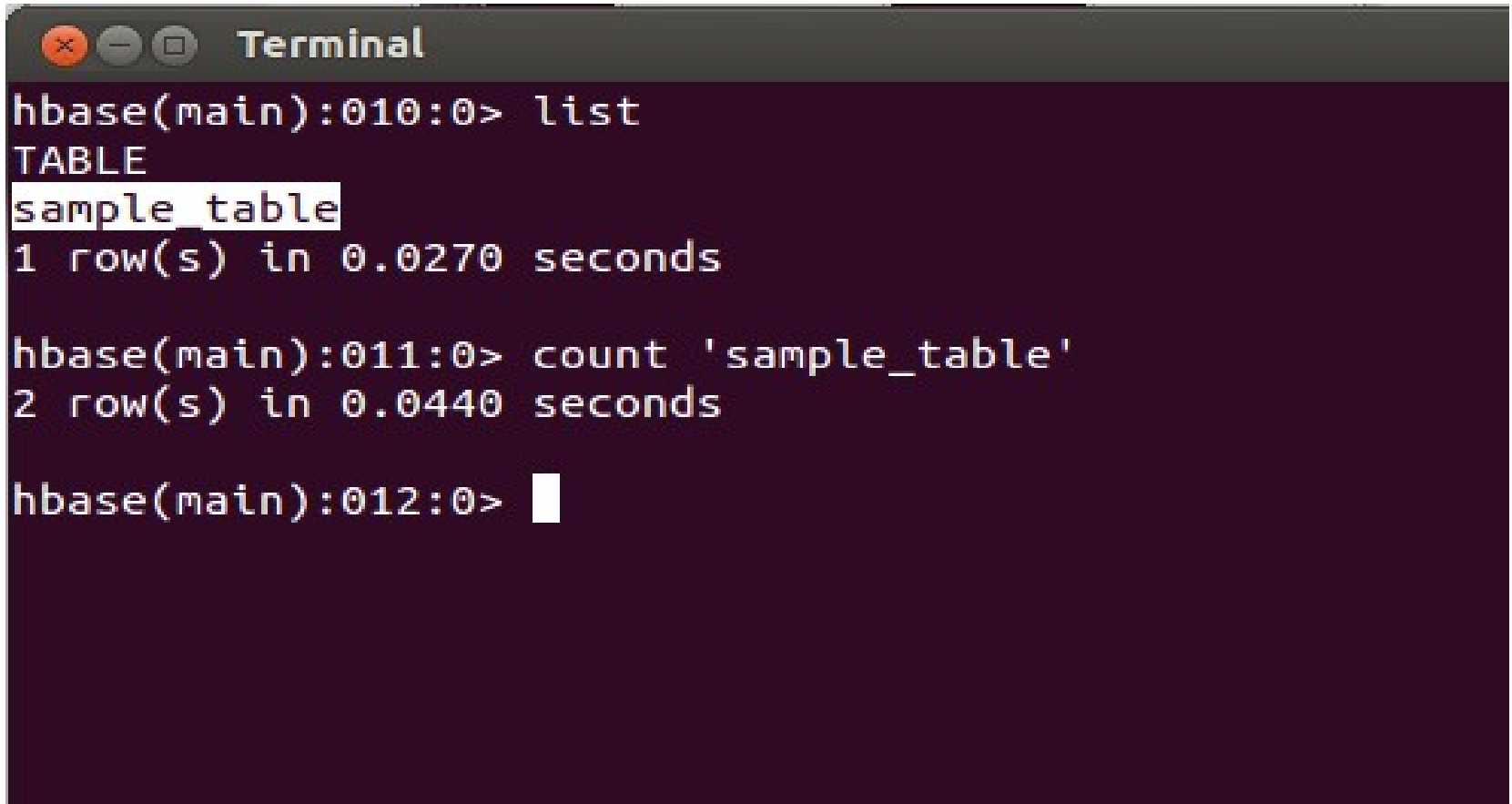
hbase(main):008:0> scan 'sample_table'
ROW          COLUMN+CELL
 row1        column=cf1:qf1, timestamp=1352254757688, value=value1
 row1        column=cf1:qf2, timestamp=1352254794165, value=value2
 row1        column=cf2:qf1, timestamp=1352254803419, value=value3
 row2        column=cf1:qf1, timestamp=1352254818590, value=value4
2 row(s) in 0.0480 seconds

hbase(main):009:0> truncate 'sample_table'
Truncating 'sample_table' table (it may take a while):
- Disabling table...
- Dropping table...
- Creating table...
0 row(s) in 7.7970 seconds

hbase(main):010:0> scan 'sample_table'
ROW          COLUMN+CELL
0 row(s) in 0.0240 seconds
```

Count the no. of rows in a table

Count <<table name>>



```
Terminal
hbase(main):010:0> list
TABLE
sample_table
1 row(s) in 0.0270 seconds

hbase(main):011:0> count 'sample_table'
2 row(s) in 0.0440 seconds

hbase(main):012:0> 
```


Help command in hbase

Help 'create'

```
Terminal
hbase(main):019:0> help 'create'
Create table; pass table name, a dictionary of specifications per
column family, and optionally a dictionary of table configuration.
Dictionaries are described below in the GENERAL NOTES section.
Examples:

hbase> create 't1', {NAME => 'f1', VERSIONS => 5}
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,
hbase> create 't1', 'f1', {SPLITS => ['10', '20', '30', '40']}
hbase> create 't1', 'f1', {SPLITS_FILE => 'splits.txt'}
hbase(main):020:0> 
```

...Thanks...