Assignment 18.3

Problem Statement:

Explain the below concepts with an example in brief.

Share the screenshot of the examples practiced.

1. **Version:**

   Keeps the history records of the column family.

   create 'clicks', {NAME=>'hits', VERSIONS=>5}
   refer link:
   https://raw.githubusercontent.com/yrchhabhaiya/BigData_Session17Assignments/master/Assignment%2017.2.pdf

   above link gives detail explanation on the version.

2. **Create table:**

   Used for creating the table. Create the table 'employee' with one column family 'details'.

   Create 'employe','details'

   ```
   hbase(main):010:0> create 'employee','details'
   0 row(s) in 0.2110 seconds

   => Hbase::Table - employee
   hbase(main):011:0>
   ```

3. **Alter table:**

   Change table structure and parameters of the table. Version of the column family 'details' set to 3.

   alter 'employee', NAME=> 'details', VERSION=>3

   ```
   hbase(main):011:0> alter 'employee', NAME=> 'details', VERSION=>3
   Unknown argument ignored for column family details: 1.8.7
   Updating all regions with the new schema...
   0/1 regions updated.
   1/1 regions updated.
   Done.
   0 row(s) in 2.1220 seconds

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

4. **Describe:**

   Gives the description of the table along with the column family details.

   Describe 'employee'

   ```
   hbase(main):012:0> describe 'employee'
   Table employee is ENABLED
   employee
   COLUMN FAMILIES DESCRIPTION
   {NAME => 'details', 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'}
   1 row(s) in 0.0630 seconds

   hbase(main):013:0>
   ```

5.   Drop table:

Drops the table along with structure details. However before dropping table we need to disable the table.

Scan 'employee'

Disable 'employee'

Describe 'employee'

Drop 'employee'

list

```
hbase(main):032:0> scan 'employee'
ROW                       COLUMN+CELL
 david                    column=details:location, timestamp=1503157754955, value=dallas
 john                     column=details:location, timestamp=1503157746055, value=boston
 tom                      column=details:location, timestamp=1503157751434, value=london
3 row(s) in 0.0160 seconds

hbase(main):033:0> disable 'employee'
0 row(s) in 1.2220 seconds

hbase(main):034:0> describe 'employee'
Table employee is DISABLED
employee
COLUMN FAMILIES DESCRIPTION
{NAME => 'details', 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'}
1 row(s) in 0.0180 seconds

hbase(main):035:0> drop 'employee'
0 row(s) in 0.1920 seconds

hbase(main):036:0> list
TABLE
clicks
customer
2 row(s) in 0.0140 seconds

=> ["clicks", "customer"]
hbase(main):037:0>
```

6.   List

Gives the list of tables in the HBase

list

```
hbase(main):013:0> list
TABLE
clicks
customer
employee
3 row(s) in 0.0110 seconds

=> ["clicks", "customer", "employee"]
hbase(main):014:0>
```

7.   Is Enabled

Checks the status of the table if it is enabled or disabled.

Is_enabled 'employee'

```
hbase(main):018:0> is_enabled 'employee'
true
0 row(s) in 0.0170 seconds

hbase(main):019:0>
```

8.   Truncate

Empty the whole table; delete all records in the table.

Truncate 'employee'

```
hbase(main):027:0> truncate 'employee'
Truncating 'employee' table (it may take a while):
 - Disabling table...
 - Truncating table...
0 row(s) in 1.3230 seconds

hbase(main):028:0> scan 'employee'
ROW                                 COLUMN+CELL
0 row(s) in 0.3110 seconds

hbase(main):029:0>
```

9. **Put**

Insert and update data into the table. Insert data of RowKey='john' where location column is 'boston'.

put 'employee','john','details:location','boston'

```
hbase(main):019:0> put 'employee','john','details:location','boston'
0 row(s) in 0.1050 seconds

hbase(main):020:0> get 'employee','john','details:location'
COLUMN                              CELL
 details:location                   timestamp=1503157275320, value=boston
1 row(s) in 0.0170 seconds
```

Update record with rowkey='john'

put 'employee','john','details:location','newyork'

```
hbase(main):021:0> put 'employee','john','details:location','newyork'
0 row(s) in 0.0100 seconds

hbase(main):022:0> get 'employee','john','details:location'
COLUMN                              CELL
 details:location                   timestamp=1503157401951, value=newyork
1 row(s) in 0.0070 seconds
```

10. **Get**

Return the record using column family and column qualifier.

get 'employee','john','details:location'

```
hbase(main):021:0> put 'employee','john','details:location','newyork'
0 row(s) in 0.0100 seconds

hbase(main):022:0> get 'employee','john','details:location'
COLUMN                              CELL
 details:location                   timestamp=1503157401951, value=newyork
1 row(s) in 0.0070 seconds
```

11. **Scan**

Shows whole table content.

Scan 'employee'

```
hbase(main):026:0> scan 'employee'
ROW                         COLUMN+CELL
 david                      column=details:location, timestamp=1503157596189, value=dallas
 john                       column=details:location, timestamp=1503157401951, value=newyork
 tom                        column=details:location, timestamp=1503157607525, value=london
3 row(s) in 0.0150 seconds

hbase(main):027:0>
```