STATEMENTS TO CREATE HBASE THRESHOLD TABLE:

```
create 'threshold_reference_table',{NAME=>'attribute',VERSIONS=>2},
{NAME=>'limit',VERSIONS=>4} ,{NAME=>'alert',VERSIONS=>6}
is_enabled 'threshold_reference_table'
describe 'threshold_reference_table'
scan 'threshold_reference_table'
```

INSERTING VALUES INTO TABLE:

```
put 'threshold_reference_table','1','attribute:attribute','heartBeat'
put 'threshold_reference_table','1','limit:low_age_limit','0'
put 'threshold_reference_table','1','limit:high_age_limit','40'
put 'threshold_reference_table','1','limit:low_value','0'
put 'threshold_reference_table','1','limit:high_value','69'
put 'threshold_reference_table','1','alert:alert_flag','1'
put 'threshold_reference_table','1','alert:alert_message','Low Heart Rate than Normal'
put 'threshold_reference_table','2','attribute:attribute','heartBeat'
put 'threshold_reference_table','2','limit:low_age_limit','0'
put 'threshold_reference_table','2','limit:high_age_limit','40'
put 'threshold_reference_table','2','limit:low_value','70'
put 'threshold_reference_table','2','limit:high_value','78'
put 'threshold_reference_table','2','alert:alert_flag','0'
put 'threshold_reference_table','2','alert:alert_message','Normal'
put 'threshold_reference_table','3','attribute:attribute','heartBeat'
put 'threshold_reference_table','3','limit:low_age_limit','0'
put 'threshold_reference_table','3','limit:high_age_limit','40'
put 'threshold_reference_table','3','limit:low_value','79'
put 'threshold_reference_table','3','limit:high_value','9999'
put 'threshold_reference_table','3','alert:alert_flag','1'
put 'threshold_reference_table','3','alert:alert_message','Higher Heart Rate than Normal'
put 'threshold_reference_table','4','attribute:attribute','bp'
put 'threshold_reference_table','4','limit:low_age_limit','0'
put 'threshold_reference_table','4','limit:high_age_limit','40'
put 'threshold_reference_table','4','limit:low_value','0'
put 'threshold_reference_table','4','limit:high_value','160'
put 'threshold_reference_table','4','alert:alert_flag','1'
put 'threshold_reference_table','4','alert:alert_message','Low BP than Normal'
put 'threshold_reference_table','5','attribute:attribute','bp'
put 'threshold_reference_table','5','limit:low_age_limit','0'
put 'threshold_reference_table','5','limit:high_age_limit','40'
put 'threshold_reference_table','5','limit:low_value','161'
put 'threshold_reference_table','5','limit:high_value','220'
put 'threshold_reference_table','5','alert:alert_flag','0'
put 'threshold_reference_table','5','alert:alert_message','Normal'
put 'threshold_reference_table','6','attribute:attribute','bp'
put 'threshold_reference_table','6','limit:low_age_limit','0'
```

```
put 'threshold_reference_table','6','limit:high_age_limit','40'
put 'threshold_reference_table','6','limit:low_value','221'
put 'threshold_reference_table','6','limit:high_value','9999'
put 'threshold_reference_table','6','alert:alert_flag','1'
put 'threshold_reference_table','6','alert:alert_message','Higher BP than Normal'
put 'threshold_reference_table','7','attribute:attribute','heartBeat'
put 'threshold_reference_table','7','limit:low_age_limit','41'
put 'threshold_reference_table','7','limit:high_age_limit','100'
put 'threshold_reference_table','7','limit:low_value','0'
put 'threshold_reference_table','7','limit:high_value','65'
put 'threshold_reference_table','7','alert:alert_flag','1'
put 'threshold_reference_table','7','alert:alert_message','Low Heart Rate than Normal'
put 'threshold_reference_table','8','attribute:attribute','heartBeat'
put 'threshold_reference_table','8','limit:low_age_limit','41'
put 'threshold_reference_table','8','limit:high_age_limit','100'
put 'threshold_reference_table','8','limit:low_value','66'
put 'threshold_reference_table','8','limit:high_value','73'
put 'threshold_reference_table','8','alert:alert_flag','0'
put 'threshold_reference_table','8','alert:alert_message','Normal'
put 'threshold_reference_table','9','attribute:attribute','heartBeat'
put 'threshold_reference_table','9','limit:low_age_limit','41'
put 'threshold_reference_table','9','limit:high_age_limit','100'
put 'threshold_reference_table','9','limit:low_value','74'
put 'threshold_reference_table','9','limit:high_value','9999'
put 'threshold_reference_table','9','alert:alert_flag','1'
put 'threshold_reference_table','9','alert:alert_message','Higher Heart Rate than Normal'
put 'threshold_reference_table','10','attribute:attribute','bp'
put 'threshold_reference_table','10','limit:low_age_limit','41'
put 'threshold_reference_table','10','limit:high_age_limit','100'
put 'threshold_reference_table','10','limit:low_value','0'
put 'threshold_reference_table','10','limit:high_value','150'
put 'threshold_reference_table','10','alert:alert_flag','1'
put 'threshold_reference_table','10','alert:alert_message','Low BP than Normal'
put 'threshold_reference_table','11','attribute:attribute','bp'
put 'threshold_reference_table','11','limit:low_age_limit','41'
put 'threshold_reference_table','11','limit:high_age_limit','100'
put 'threshold_reference_table','11','limit:low_value','151'
put 'threshold_reference_table','11','limit:high_value','180'
put 'threshold_reference_table','11','alert:alert_flag','0'
put 'threshold_reference_table','11','alert:alert_message','Normal'
put 'threshold_reference_table','12','attribute:attribute','bp'
put 'threshold_reference_table','12','limit:low_age_limit','41'
put 'threshold_reference_table','12','limit:high_age_limit','100'
put 'threshold_reference_table','12','limit:low_value','181'
put 'threshold_reference_table','12','limit:high_value','9999'
put 'threshold_reference_table','12','alert:alert_flag','1'
put 'threshold_reference_table','12','alert:alert_message','Higher BP than Normal'
```

```
hbase(main):003:0> create 'threshold_reference_table',{NAME=>'attribute',VERSIONS=>2},{NAME=>'limit',VERSIONS=>4} ,{NAME=>'alert',VERSIONS=>6}
0 row(s) in 2.5860 seconds

=> Hbase::Table - threshold_reference_table
hbase(main):004:0> is_enabled 'threshold_reference_table'
true
0 row(s) in 0.0150 seconds
```

```
hbase(main):006:0> describe 'threshold_reference_table'
Table threshold_reference_table is ENABLED
threshold_reference_table
COLUMN FAMILIES DESCRIPTION
{NAME => 'alert', BLOOMFILTER => 'ROW', VERSIONS => '6', IN_MEMORY => 'false', KEEP_DELE
TED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'N
ONE', MIN_VERSIONS => '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE
 => '0'}
{NAME => 'attribute', BLOOMFILTER => 'ROW', VERSIONS => '2', 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 => 'limit', BLOOMFILTER => 'ROW', VERSIONS => '4', IN_MEMORY => 'false', KEEP_DELE
TED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'N
ONE', MIN_VERSIONS => '0', BLOCKCACHE => 'true', BLOCKSIZE => '65536', REPLICATION_SCOPE
 => '0'}
3 row(s) in 0.0140 seconds
```

```
hbase(main):092:0> scan 'threshold_reference_table'
ROW                          COLUMN+CELL
 1                           column=alert:alert_flag, timestamp=1677908899608, value=1
 1                           column=alert:alert_message, timestamp=1677908899625, value=Low Heart Rate than Normal
 1                           column=attribute:attribute, timestamp=1677908899514, value=heartBeat
 1                           column=limit:high_age_limit, timestamp=1677908899557, value=40
 1                           column=limit:high_value, timestamp=1677908899588, value=69
 1                           column=limit:low_age_limit, timestamp=1677908899542, value=0
 1                           column=limit:low_value, timestamp=1677908899571, value=0
 10                          column=alert:alert_flag, timestamp=1677908900566, value=1
 10                          column=alert:alert_message, timestamp=1677908900581, value=Low BP than Normal
 10                          column=attribute:attribute, timestamp=1677908900505, value=bp
 10                          column=limit:high_age_limit, timestamp=1677908900526, value=100
 10                          column=limit:high_value, timestamp=1677908900554, value=150
 10                          column=limit:low_age_limit, timestamp=1677908900515, value=41
 10                          column=limit:low_value, timestamp=1677908900538, value=0
 11                          column=alert:alert_flag, timestamp=1677908900657, value=0
 11                          column=alert:alert_message, timestamp=1677908900667, value=Normal
 11                          column=attribute:attribute, timestamp=1677908900597, value=bp
 11                          column=limit:high_age_limit, timestamp=1677908900623, value=100
 11                          column=limit:high_value, timestamp=1677908900646, value=180
 11                          column=limit:low_age_limit, timestamp=1677908900610, value=41
 11                          column=limit:low_value, timestamp=1677908900635, value=151
 12                          column=alert:alert_flag, timestamp=1677908900728, value=1
 12                          column=alert:alert_message, timestamp=1677908900738, value=Higher BP than Normal
 12                          column=attribute:attribute, timestamp=1677908900678, value=bp
 12                          column=limit:high_age_limit, timestamp=1677908900699, value=100
 12                          column=limit:high_value, timestamp=1677908900718, value=9999
 12                          column=limit:low_age_limit, timestamp=1677908900689, value=41
 12                          column=limit:low_value, timestamp=1677908900709, value=181
 2                           column=alert:alert_flag, timestamp=1677908899722, value=0
 2                           column=alert:alert_message, timestamp=1677908899740, value=Normal
 2                           column=attribute:attribute, timestamp=1677908899639, value=heartBeat
 2                           column=limit:high_age_limit, timestamp=1677908899680, value=40
 2                           column=limit:high_value, timestamp=1677908899709, value=78
 2                           column=limit:low_age_limit, timestamp=1677908899656, value=0
 2                           column=limit:low_value, timestamp=1677908899694, value=70
```

```
4                                    column=limit:high_value, timestamp=1677908899947, value=160
4                                    column=limit:low_age_limit, timestamp=1677908899882, value=0
4                                    column=limit:low_value, timestamp=1677908899931, value=0
5                                    column=alert:alert_flag, timestamp=1677908900061, value=0
5                                    column=alert:alert_message, timestamp=1677908900072, value=Normal
5                                    column=attribute:attribute, timestamp=1677908899988, value=bp
5                                    column=limit:high_age_limit, timestamp=1677908900023, value=40
5                                    column=limit:high_value, timestamp=1677908900047, value=220
5                                    column=limit:low_age_limit, timestamp=1677908900009, value=0
5                                    column=limit:low_value, timestamp=1677908900036, value=161
6                                    column=alert:alert_flag, timestamp=1677908900142, value=1
6                                    column=alert:alert_message, timestamp=1677908900154, value=Higher BP than Normal
6                                    column=attribute:attribute, timestamp=1677908900085, value=bp
6                                    column=limit:high_age_limit, timestamp=1677908900111, value=40
6                                    column=limit:high_value, timestamp=1677908900132, value=9999
6                                    column=limit:low_age_limit, timestamp=1677908900099, value=0
6                                    column=limit:low_value, timestamp=1677908900121, value=221
7                                    column=alert:alert_flag, timestamp=1677908900290, value=1
7                                    column=alert:alert_message, timestamp=1677908900306, value=Low Heart Rate than Normal
7                                    column=attribute:attribute, timestamp=1677908900185, value=heartBeat
7                                    column=limit:high_age_limit, timestamp=1677908900231, value=100
7                                    column=limit:high_value, timestamp=1677908900272, value=65
7                                    column=limit:low_age_limit, timestamp=1677908900217, value=41
7                                    column=limit:low_value, timestamp=1677908900252, value=0
8                                    column=alert:alert_flag, timestamp=1677908900408, value=0
8                                    column=alert:alert_message, timestamp=1677908900420, value=Normal
8                                    column=attribute:attribute, timestamp=1677908900336, value=heartBeat
8                                    column=limit:high_age_limit, timestamp=1677908900358, value=100
8                                    column=limit:high_value, timestamp=1677908900383, value=73
8                                    column=limit:low_age_limit, timestamp=1677908900347, value=41
8                                    column=limit:low_value, timestamp=1677908900370, value=66
9                                    column=alert:alert_flag, timestamp=1677908900485, value=1
9                                    column=alert:alert_message, timestamp=1677908900494, value=Higher Heart Rate than Normal
9                                    column=attribute:attribute, timestamp=1677908900431, value=heartBeat
9                                    column=limit:high_age_limit, timestamp=1677908900453, value=100
9                                    column=limit:high_value, timestamp=1677908900475, value=9999
9                                    column=limit:low_age_limit, timestamp=1677908900441, value=41
9                                    column=limit:low_value, timestamp=1677908900465, value=74
12 row(s) in 0.0620 seconds
```