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Cassandra Exercise - 2

Table Creation:

```
CREATE TABLE IF NOT EXISTS product(  
  id int,  
  unitstock bigint,  
  PRIMARY KEY(id, unitstock)  
);
```

Insertion of data:

```
insert into product(id,unitstock) values (2,50);  
insert into product(id,unitstock) values (1,15);  
insert into product(id,unitstock) values (1,25);  
insert into product(id,unitstock) values (4,50);
```

Output:

Results	Query Trace	
id		unitstock
1		15
1		25
2		50
4		50

Aggregate function:

```
select avg(unitstock) from product WHERE id=1;
```

Output:

Results	Query Trace	
system.avg(unitstock)		
20		

SELECT count(id) FROM **product** WHERE id=1;

Output:

Results	Query Trace
system.count(id)	
2	

SELECT sum(unitstock) FROM product WHERE id=1;

Output:

Results	Query Trace
system.sum(unitstock)	
40	

SELECT min(unitstock) FROM product WHERE id=1;

Output:

Results	Query Trace
system.min(unitstock)	
15	

SELECT max(unitstock) FROM product WHERE id=1;

Output:

Results	Query Trace
system.max(unitstock)	
25	

Aggregate user defined function:

Create function min_c(current bigint,candidate bigint)
called on null
input returns int language java as
'if(current==null)return candidate;
else return Math.max(current,candidate);';

```
create aggregate min_cr(bigint)
  sfunc min_c
  stype int
  initcond null;
```

```
select min_cr(unitstock) FROM product1 WHERE id=1;
```

Output:

Results	Query Trace
assign4.min_cr(unitstock)	
25	

```
CREATE TABLE student(  
    id int,  
    mark int,  
    PRIMARY KEY (id)  
)  
WITH compression = { 'enabled' : false };
```

```
C:\Program Files\DataStax-DDC\apache-cassandra\bin>nodetool tablestats assign4.student  
Keyspace : assign4  
  Read Count: 0  
  Read Latency: NaN ms.  
  Write Count: 6  
  Write Latency: 0.7166666666666667 ms.  
  Pending Flushes: 0  
    Table: student  
    SSTable count: 0  
    Space used (live): 0  
    Space used (total): 0  
    Space used by snapshots (total): 0  
    Off heap memory used (total): 0  
    SSTable Compression Ratio: 0.0  
    Number of keys (estimate): 5  
    Memtable cell count: 6  
    Memtable data size: 294  
    Memtable off heap memory used: 0  
    Memtable switch count: 0  
    Local read count: 0  
    Local read latency: NaN ms  
    Local write count: 6  
    Local write latency: 0.826 ms  
    Pending flushes: 0  
    Percent repaired: 100.0  
    Bloom filter false positives: 0  
    Bloom filter false ratio: 0.00000  
    Bloom filter space used: 0  
    Bloom filter off heap memory used: 0  
    Index summary off heap memory used: 0  
    Compression metadata off heap memory used: 0  
    Compacted partition minimum bytes: 0  
    Compacted partition maximum bytes: 0  
    Compacted partition mean bytes: 0  
    Average live cells per slice (last five minutes): NaN  
    Maximum live cells per slice (last five minutes): 0  
    Average tombstones per slice (last five minutes): NaN  
    Maximum tombstones per slice (last five minutes): 0  
    Dropped Mutations: 0
```

```
ALTER TABLE student
WITH compression = { 'class' : 'LZ4Compressor' };
```

```
C:\Program Files\DataStax-DDC\apache-cassandra\bin>nodetool tablestats assign4.student
Keyspace : assign4
  Read Count: 0
  Read Latency: NaN ms.
  Write Count: 6
  Write Latency: 0.7166666666666667 ms.
  Pending Flushes: 0
    Table: student
    SSTable count: 1
    Space used (live): 5032
    Space used (total): 5032
    Space used by snapshots (total): 0
    Off heap memory used (total): 40
    SSTable Compression Ratio: 0.5846994535519126
    Number of keys (estimate): 6
    Memtable cell count: 0
    Memtable data size: 0
    Memtable off heap memory used: 0
    Memtable switch count: 1
    Local read count: 0
    Local read latency: NaN ms
    Local write count: 6
    Local write latency: 0.826 ms
    Pending flushes: 0
    Percent repaired: 0.0
    Bloom filter false positives: 0
    Bloom filter false ratio: 0.00000
    Bloom filter space used: 24
    Bloom filter off heap memory used: 16
    Index summary off heap memory used: 16
    Compression metadata off heap memory used: 8
    Compacted partition minimum bytes: 25
    Compacted partition maximum bytes: 35
    Compacted partition mean bytes: 34
    Average live cells per slice (last five minutes): NaN
    Maximum live cells per slice (last five minutes): 0
    Average tombstones per slice (last five minutes): NaN
    Maximum tombstones per slice (last five minutes): 0
    Dropped Mutations: 0
```

ALTER TABLE student

WITH compression = { 'class' : 'DeflateCompressor', 'chunk_length_in_kb' : 64 };

```
C:\Program Files\DataStax-DDC\apache-cassandra\bin>nodetool tablestats assign4.student
Keyspace : assign4
  Read Count: 0
  Read Latency: NaN ms.
  Write Count: 6
  Write Latency: 0.7166666666666667 ms.
  Pending Flushes: 0
    Table: student
    SSTable count: 1
    Space used (live): 5032
    Space used (total): 5032
    Space used by snapshots (total): 0
    Off heap memory used (total): 40
    SSTable Compression Ratio: 0.5846994535519126
    Number of keys (estimate): 6
    Memtable cell count: 0
    Memtable data size: 0
    Memtable off heap memory used: 0
    Memtable switch count: 2
    Local read count: 0
    Local read latency: NaN ms
    Local write count: 6
    Local write latency: 0.826 ms
    Pending flushes: 0
    Percent repaired: 0.0
    Bloom filter false positives: 0
    Bloom filter false ratio: 0.00000
    Bloom filter space used: 24
    Bloom filter off heap memory used: 16
    Index summary off heap memory used: 16
    Compression metadata off heap memory used: 8
    Compacted partition minimum bytes: 25
    Compacted partition maximum bytes: 35
    Compacted partition mean bytes: 34
    Average live cells per slice (last five minutes): NaN
    Maximum live cells per slice (last five minutes): 0
    Average tombstones per slice (last five minutes): NaN
    Maximum tombstones per slice (last five minutes): 0
    Dropped Mutations: 0
```