
DADS 6002 / CI 7301

Big Data Analytics

HBASE Lab

Hbase Lab

- To start Hbase CLI
hbase shell
hbase>
- To exit Hbase CLI
hbase> quit

Hbase Lab

- Create a namespace

```
hbase> create_namespace 'ns_test'
```

```
hbase> list_namespace
```

- Create a table under a namespace

```
hbase> create 'ns_test:t1', 'cf1'
```

```
hbase> list
```

- Remove the created table

```
hbase> disable 'ns_test:t1'
```

```
hbase> drop 'ns_test:t1'
```

- Remove a namespace (the namespace must be empty)

```
hbase> drop_namespace 'ns_test'
```

```
hbase> list_namespace
```

Hbase Lab

- Create a new table 'linkshare' with a column family 'link'

```
hbase> create 'linkshare','link'
```

```
hbase> list
```

Hbase Lab

- Alter the table structure after creation e.g. adding a column family

```
Hbase> disable 'linkshare'
```

```
Hbase> alter 'linkshare','statistics'
```

```
Hbase> enable 'linkshare'
```

```
Hbase> describe 'linkshare'
```

Hbase Lab

- Insert data with put

```
hbase > put 'linkshare', 'org.hbase.www',  
'link:title', 'Apache Hbase'
```

```
hbase > put 'linkshare', 'org.hadoop.www',  
'link:title', 'Apache Hadoop'
```

```
hbase > put 'linkshare', 'org.hive.www', 'link:title',  
'Apache Hive'
```

Hbase Lab

- Increment a counter associated with a column of a row

```
hbase > incr 'linkshare', 'org.hbase.www',  
'statistics:share', 1
```

```
hbase > incr 'linkshare', 'org.hbase.www',  
'statistics:share', 2
```

- Get the value in the counter

```
hbase > get_counter 'linkshare',  
'org.hbase.www', 'statistics: share'
```

Hbase Lab

- Get row or cell values

```
hbase > get 'linkshare','org.hbase.www',  
'link:title'
```

```
hbase > get 'linkshare','org.hbase.www',  
'link:title', 'statistics:share'
```


Hbase Lab

To change the max number of versions of a column family

```
hbase > alter 'linkshare', { NAME => 'link', VERSIONS => 4  
}
```

```
hbase > put 'linkshare', 'org.test.www', 'link:title', 'Apache  
Test 1'
```

```
hbase > put 'linkshare', 'org.test.www', 'link:title', 'Apache  
Test 2'
```

```
hbase > get 'linkshare', 'org.test.www', { COLUMN =>  
'link:title', VERSIONS => 2 }
```

Hbase Lab

- Scan a table

```
hbase> scan 'linkshare'
```

```
hbase> scan 'linkshare', { COLUMN =>  
'link:title', STARTROW => 'org.hbase.www' }
```

```
hbase> scan 'linkshare', { COLUMN =>  
'link:title', STARTROW => 'org.hadoop.www',  
ENDROW => 'org.hive.www' }
```

Hbase Lab

- Scan with Filter

```
hbase> scan 'linkshare', { COLUMN =>  
'link:title', FILTER => "ValueFilter ( <=,  
'binary:Apache Hbase' )" }
```

```
hbase> scan 'linkshare', { COLUMN =>  
'link:title', FILTER => "ValueFilter ( >,  
'binary:Apache Hbase' )" }
```

Hbase Lab

- Delete a cell in a row
hbase > delete 'linkshare', 'org.hbase.www',
'link:title'
- Update a cell in a row with a new value (use put)
hbase > put 'linkshare', 'org.hbase.www',
'link:title', 'new value'
hbase > scan 'linkshare'

Hbase Lab

- Delete a table

First disable the table then delete it using drop command

```
hbase> create 'test', 'cf'
```

```
hbase> list
```

```
hbase> disable 'test'
```

```
hbase> drop 'test'
```

```
hbase> list
```