

03_ClusteringColumns

READY



```
%sh
STATUS="$(service cassandra status)"

if [[ $STATUS == *"is running"* ]]; then
  echo "Cassandra is running"
else
  echo "Cassandra not running .... Starting"
  service cassandra restart > /dev/null 2>&1 &
  echo "Started"
fi
```

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Exercise 3 – Clustering Columns

FINISHED

In this exercise, you will:

- Understand how clustering columns affect the underlying storage mechanism.
- Understand how clustering columns affect queries.

Clustering columns are those columns that are part of the primary key, but are not the partition key. This exercise will help you understand how clustering columns affect what and how you can query.

Took 0 sec. Last updated by anonymous at July 13 2020, 9:10:36 PM.

Steps

READY

1. Ensure you are using the YooToob keyspace by executing the line below:

```
%cassandra
USE YooToob;
```

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2. Drop your videos_by_tag table that you created in the previous exercise.

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3. Now, let's create a new `videos_by_tag` table partitioned based on the tag. The table should also store the rows of each partition so that the newest videos are listed first within the partition.

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NOTE: Remember that you must include `WITH CLUSTERING ORDER BY(column1 ASC/DESC, column2 ASC/DESC, etc.)` to do so.

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4. Insert the `videos_by_tag.csv` again via the insert commands by executing the code below.

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```
INSERT INTO videos_by_tag(tag, video_id, added_date, title)
VALUES ('cassandra', 1645ea59-14bd-11e5-a993-8138354b7e31, '2014-01-29', 'Cassandra History');

INSERT INTO videos_by_tag(tag, video_id, added_date, title)
VALUES ('cassandra', 245e8024-14bd-11e5-9743-8238356b7e32, '2012-04-03', 'Cassandra & SSDs');

INSERT INTO videos_by_tag(tag, video_id, added_date, title)
VALUES ('cassandra', 3452f7de-14bd-11e5-855e-8738355b7e3a, '2013-03-17', 'Cassandra Intro');

INSERT INTO videos_by_tag(tag, video_id, added_date, title)
VALUES ('fenago', 4845ed97-14bd-11e5-8a40-8338255b7e33, '2013-10-16', 'Apache Cassandra');

INSERT INTO videos_by_tag(tag, video_id, added_date, title)
VALUES ('fenago', 5645f8bd-14bd-11e5-af1a-8638355b8e3a, '2013-04-16', 'What is Apache Cassandra?')
```

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5. Perform a `SELECT *` query on `videos_by_tag`.

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Took 0 sec. Last updated by anonymous at July 13 2020, 2:39:03 PM. (outdated)

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Note: Notice the rows are still grouped by their partition key value but ordered in descending order of added date.

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6. Execute your query again, but list the oldest videos first.

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Note: Your query will fail. When specifying ORDER BY, you must restrict the partition key.

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7. Change your query to restrict the partition key value to 'cassandra'.

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Note: Clustering columns allow range queries (<, <=, >=).

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8. Change your query to retrieve videos made in 2013 or later.

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