**Partitioning and Bucketing**

Partitioning = based on query parameter.

Bucketing = based on unique value.

hive> set hive.exec.dynamic.partition.mode=nonstrict;  
hive> set hive.exec.dynamic.partition=true;  
hive> set hive.enforce.bucketing=true;  
  
**Create a Partitioned table**  
hive> create table TransactionByCategory(

> txnno int,txndate string,custno int,amount double,product string,city string,state string,spendby string)

> partitioned by (category string)

> clustered by (txnno) into 10 buckets

> row format delimited fields terminated by ','

> stored as textfile;

[cloudera@quickstart /]$ hdfs dfs -ls /user/hive/warehouse/retail.db/transactionbycategory

[cloudera@quickstart /]$

->When you load the data, then only Partition will take place.

hive> from Transaction txn insert overwrite table TransactionByCategory PARTITION(category)

> select txn.txnno,txn.txndate,txn.custno,txn.amount,txn.product,txn.city,txn.state,txn.spendby,txn.category DISTRIBUTE by category;  
  
[cloudera@quickstart /]$ hdfs dfs -ls /user/hive/warehouse/retail.db/transactionbycategory

Found 15 items

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Air Sports

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Combat Sports

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Dancing

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Exercise & Fitness

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Games

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Gymnastics

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Indoor Games

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Jumping

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Outdoor Play Equipment

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Outdoor Recreation

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Puzzles

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Racquet Sports

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Team Sports

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Water Sports

drwxrwxrwx - cloudera supergroup 0 2021-01-26 10:09 /user/hive/warehouse/retail.db/transactionbycategory/category=Winter Sports

[cloudera@quickstart /]$