1.enabling bucketing and partition
set hive.exec.dynamic.partition=true;
set hive.exec.dynamic.partition.mode=nonstrict;
set hive.enforce.bucketing=true

2.create normal table
create table products_no_buckets(
id int,
name string,
cost double ,
category string)
row format delimited fields terminated by ',';

```
FAILED: ParseException line 4:0 cannot recognize input near `cast` `double` `,`
hive> create table products_no_buckets(
    > id int,
    > name string,
    > cost double ,
    > category string)
    > row format delimited fields terminated by ',';
OK
Time taken: 0.58 seconds
hive> []
```

3.insert into normal table

```
Time taken: 0.58 seconds
hive> load data local inpath 'newproducts.csv' into table products_no_buckets
    > ;
Loading data to table dhiraj_itv002776.products_no_buckets
OK
Time taken: 0.949 seconds
hive> []
```

Records after inserting:

```
hive> select * from products_no_buckets;
OK
1          iPhone   379.99   mobiles
2          doll     8.99     toys
3          Galaxy X          100.0    mobile
5          Nokia Y  39.99    mobile
6          truck    7.99     toys
7          makeup   100.0    fashion
8          earings  69.0     fashion
9          chair    129.0    furniture
10         table    269.0    furniture
11         waterpistol       9.0      toys
Time taken: 12.076 seconds, Fetched: 10 row(s)
hive> ▯
```

See path in hdfs:

```
[itv002776@g01 ~]$ hadoop fs -ls /user/itv002776/warehouse/dhiraj_itv002776.db/products_no_buckets;
Found 1 items
-rw-r--r--   3 itv002776 supergroup        213 2022-11-12 23:23 /user/itv002776/warehouse/dhiraj_itv002776.db/products_
no_buckets/newproducts.csv
[itv002776@g01 ~]$ ▯
```

4.4.create bucketed table on column:

create table products_partitioned_buckets(
id int,
name string,
cost double ,
)
partitioned by (category string)
clustered by (id) into 4 Buckets
row format delimited fields terminated by ',';

```
FAILED: ... ... ...  ...  ...  ...  ...
hive> create table products_partitioned_buckets(
    > id int,
    > name string,
    > cost double
    > )
    > partitioned by (category string)
    > clustered by (id) into 4 buckets
    > row format delimited fields terminated  by ',';
OK
Time taken: 0.164 seconds
hive> []
```

5.inseert into partitioned,bucketed table
insert into products_partitioned_buckets
partition(category)
select id,name,cost,category from products_no_buckets;

```
hive> insert  into products_partitioned_buckets
    > partition(category)
    > select id,name,cost,category from products_no_buckets;
Query ID = itv002776_20221114224934_3976e15b-cf9f-442b-ba35-c2a5148a33cd
Total jobs = 2
Launching Job 1 out of 2
Number of reduce tasks determined at compile time: 4
In order to change the average load for a reducer (in bytes):
  set hive.exec.reducers.bytes.per.reducer=<number>
In order to limit the maximum number of reducers:
  set hive.exec.reducers.max=<number>
In order to set a constant number of reducers:
  set mapreduce.job.reduces=<number>
Starting Job = job_1658918988971_43068, Tracking URL = http://m02.itversity.com:19088/proxy/applicati
988971_43068/
Kill Command = /opt/hadoop/bin/mapred job  -kill job_1658918988971_43068
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 4
2022-11-14 22:49:51,131 Stage-1 map = 0%,  reduce = 0%
2022-11-14 22:49:54,218 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 1.79 sec
```

```
11_orders/country=UK/state=JJ
[itv002776@g01 ~]$ hadoop fs -ls /user/itv002776/warehouse/dhiraj_itv002776.db/products_partitioned_buckets;
Found 5 items
drwxr-xr-x   - itv002776 supergroup          0 2022-11-14 22:50 /user/itv002776/warehouse/dhiraj_itv002776.db/p
roducts_partitioned_buckets/category=fashion
drwxr-xr-x   - itv002776 supergroup          0 2022-11-14 22:50 /user/itv002776/warehouse/dhiraj_itv002776.db/p
roducts_partitioned_buckets/category=furniture
drwxr-xr-x   - itv002776 supergroup          0 2022-11-14 22:50 /user/itv002776/warehouse/dhiraj_itv002776.db/p
roducts_partitioned_buckets/category=mobile
drwxr-xr-x   - itv002776 supergroup          0 2022-11-14 22:50 /user/itv002776/warehouse/dhiraj_itv002776.db/p
roducts_partitioned_buckets/category=mobiles
drwxr-xr-x   - itv002776 supergroup          0 2022-11-14 22:50 /user/itv002776/warehouse/dhiraj_itv002776.db/p
roducts_partitioned_buckets/category=toys
[itv002776@g01 ~]$ hadoop fs -ls /user/itv002776/warehouse/dhiraj_itv002776.db/products_partitioned_buckets/cat
```

```
[itv002776@g01 ~]$ hadoop fs -ls /user/itv002776/warehouse/dhiraj_itv002776.db/products_partitioned_buckets/cat
egory=fashion;
Found 4 items
-rw-r--r--   3 itv002776 supergroup         15 2022-11-14 22:50 /user/itv002776/warehouse/dhiraj_itv002776.db/p
roducts_partitioned_buckets/category=fashion/000000_0
-rw-r--r--   3 itv002776 supergroup          0 2022-11-14 22:50 /user/itv002776/warehouse/dhiraj_itv002776.db/p
roducts_partitioned_buckets/category=fashion/000001_0
-rw-r--r--   3 itv002776 supergroup          0 2022-11-14 22:50 /user/itv002776/warehouse/dhiraj_itv002776.db/p
roducts_partitioned_buckets/category=fashion/000002_0
-rw-r--r--   3 itv002776 supergroup         15 2022-11-14 22:50 /user/itv002776/warehouse/dhiraj_itv002776.db/p
roducts_partitioned_buckets/category=fashion/000003_0
[itv002776@g01 ~]$ []
```

Get partitions on tables:
Show partitions products_partitioned_buckets

```
Time taken: 45.289 seconds
hive> Show partitions products_partitioned_buckets;
OK
category=fashion
category=furniture
category=mobile
category=mobiles
category=toys
Time taken: 0.161 seconds, Fetched: 5 row(s)
hive> []
```