## Login to Hadoop:

```
login as: hadoop
hadoop@192.168.56.100's password:
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.4.0-171-generic x86_64)
```

```
hadoop@mainserver1:~$ jps
1942 Jps
hadoop@mainserver1:~$ start-dfs.sh
Starting namenodes on [localhost]
Starting datanodes
Starting secondary namenodes [mainserver1]
```

```
hadoop@mainserver1:~$ start-yarn.sh
Starting resourcemanager
Starting nodemanagers
```

```
hadoop@mainserver1:~$ jps
2320 DataNode
2529 SecondaryNameNode
2977 NodeManager
2806 ResourceManager
2156 NameNode
3405 Jps
```

## Starting Hive:

```
hadoop@mainserver1:~$ cd /usr/local/hive/conf
hadoop@mainserver1:/usr/local/hive/conf$ hive
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/usr/local/hive/lib/log4
ass]
SLF4J: Found binding in [jar:file:/usr/local/hadoop/share/
StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindin
SLF4J: Actual binding is of type [org.apache.logging.slf4j

Logging initialized using configuration in file:/usr/local
Hive-on-MR is deprecated in Hive 2 and may not be availabl
on engine (i.e. spark, tez) or using Hive 1.X releases.
WARNING: An illegal reflective access operation has occurr
WARNING: Illegal reflective access by org.apache.hadoop.hi
ommon-2.3.9.jar) to field java.net.URI.string
WARNING: Please consider reporting this to the maintainers
WARNING: Use --illegal-access=warn to enable warnings of f
WARNING: All illegal access operations will be denied in a
hive>
```

## Hive Queries:

```
hive> show databases;
OK
cdacdb
default
emp
hivedb
mytemp
newdb
project
sampledb
Time taken: 0.464 seconds, Fetched: 8 row(s)
```

```
hive> use project;
OK
Time taken: 0.061 seconds
```

```
hive> show tables;
OK
energy
Time taken: 0.452 seconds, Fetched: 1 row(s)
```

```
hive> describe energy;
OK
country                 string
year                    int
coal_consumption        float
coal_electricity        float
coal_production         float
electricity_generation  float
fossil_fuel_consumption float
gas_consumption         float
gas_production          float
oil_consumption         float
oil_electricity         float
greenhouse_gas_emissions        float
Time taken: 0.843 seconds, Fetched: 12 row(s)
```

```
hive> select * from energy limit 5;
OK
ASEAN (Ember)   2000    0.0     71.03   0.0     368.65  0.0     0.0     0.0     0.0     61.5    184.41
ASEAN (Ember)   2001    0.0     80.02   0.0     397.19  0.0     0.0     0.0     0.0     55.14   198.34
ASEAN (Ember)   2002    0.0     87.16   0.0     422.82  0.0     0.0     0.0     0.0     56.15   213.8
ASEAN (Ember)   2003    0.0     98.51   0.0     447.15  0.0     0.0     0.0     0.0     56.01   229.7
ASEAN (Ember)   2004    0.0     111.62  0.0     484.94  0.0     0.0     0.0     0.0     58.33   252.61
Time taken: 1.754 seconds, Fetched: 5 row(s)
```

```
hive> SELECT year, country, greenhouse_gas_emissions
    > FROM energy
    > WHERE year = 2022 AND country = 'World'
    > ;
OK
2022    World   12447.7
Time taken: 0.3 seconds, Fetched: 1 row(s)
```

```
hive> SELECT year, country, greenhouse_gas_emissions
    > FROM energy
    > WHERE year = 2022 AND country = 'India';
OK
2022    India   1162.33
Time taken: 0.22 seconds, Fetched: 1 row(s)
```

```
hive> SELECT year, country, greenhouse_gas_emissions
    > FROM energy
    > WHERE year = 2022 AND country = 'China';
OK
2022    China   4694.91
Time taken: 0.222 seconds, Fetched: 1 row(s)
```

```
hive> SELECT country, year, MAX(greenhouse_gas_emissions)
    > FROM energy
    > WHERE year = 2022
    > GROUP BY country, year
    > ORDER BY max_emissions DESC
    > LIMIT 1;
```

```
Total MapReduce CPU Time Spent: 0 msec
OK
World   2022    12447.7
```

```
hive> SELECT country, year, MAX(greenhouse_gas_emissions)
AS max_emissions
    > FROM energy
    > WHERE year = 2022
    > GROUP BY country, year
    > ORDER BY max_emissions DESC
    > LIMIT 5;
WARNING: Hive-on-MR is deprecated in Hive 2 and may not be
 available in the future versions. Consider using a differ
ent execution engine (i.e. spark, tez) or using Hive 1.X r
eleases.
Query ID = hadoop_20240304180419_d35ef813-ecfe-4d86-9c3d-5
4e78c72b31f
Total jobs = 2
Launching Job 1 out of 2
Number of reduce tasks not specified. Estimated from input
 data size: 1
In order to change the average load for a reducer (in byte
s):
  set hive.exec.reducers.bytes.per.reducer=<number>
```

```
MapReduce Jobs Launched:
Stage-Stage-1:  HDFS Read: 28512340 HDFS Write: 0 SUCCESS
Stage-Stage-2:  HDFS Read: 28512340 HDFS Write: 0 SUCCESS
Total MapReduce CPU Time Spent: 0 msec
OK
World   2022    12447.7
G20 (Ember)     2022    10604.28
Asia (Ember)    2022    7640.08
China   2022    4694.91
OECD (Ember)    2022    3711.77
Time taken: 2.934 seconds, Fetched: 5 row(s)
```