Command to create the external table in Hive:

```
hive> create external table employees (name string, job_title string, dept string, term string, salary_type string, t_hours float, annual_salary float, hourly_rate float) row format serde 'org.apache.hadoop.hive.serde2.OpenCSVSerde' with serdeproperties("separatorChar" = "\,", "quoteChar" = "\"", "escapeChar" = "\\") stored as textfile TBLPROPERTIES ("skip.header.line.count"="1");
```

Command to load data in Hive table:

```
hive> load data local inpath '/home/cloudera/ChicagoEmployeesDataset.csv' overwrite into table employees;
```

Here are 3 queries in below with screenshot. I have run these queries in the terminal and showing the output in the terminal. I had issue with the resource of the laptop that's why I could not show the query result in UI.

To solve the issues with the data casting view could be created using the following command
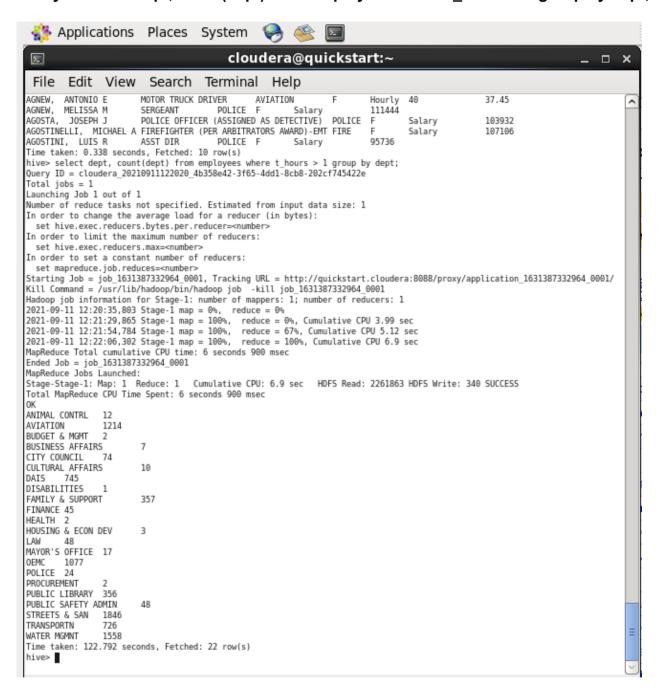
Create the view for the **employees** table:

```
CREATE VIEW employees_view AS SELECT name, job_title, dept, CAST(term AS VARCHAR(1)), salary_type, CAST(t_hours AS FLOAT), CAST(annual_salary AS FLOAT), CAST(hourly_rate AS FLOAT) FROM employees;
```

*I did not load and query in the new view table(**employees_view**), instead I have used the **employee** table to run all my query. Hope that's on with you.*

Query 1: select * from employees where annual_salary > 40000 order by annual_salary desc limit 10;

```
cloudera@quickstart:~                                          _ □ ×

File  Edit  View  Search  Terminal  Help
Time taken: 122.792 seconds, Fetched: 22 row(s)
hive> select * from employees where annual_salary > 40000 order by annual_salary desc limit 10;
Query ID = cloudera_20210911122626_77e73bfd-0696-4e5f-88f5-5e645ca56b96
Total jobs = 1
Launching Job 1 out of 1
Number of reduce tasks determined at compile time: 1
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_1631387332964_0002, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1631387332964_0002/
Kill Command = /usr/lib/hadoop/bin/hadoop job  -kill job_1631387332964_0002
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2021-09-11 12:26:15,681 Stage-1 map = 0%,   reduce = 0%
2021-09-11 12:27:16,674 Stage-1 map = 0%,   reduce = 0%
2021-09-11 12:27:18,028 Stage-1 map = 67%,  reduce = 0%, Cumulative CPU 7.17 sec
2021-09-11 12:27:19,106 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 7.86 sec
2021-09-11 12:27:30,944 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 10.9 sec
MapReduce Total cumulative CPU time: 10 seconds 900 msec
Ended Job = job_1631387332964_0002
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 10.9 sec   HDFS Read: 2262823 HDFS Write: 590 SUCCESS
Total MapReduce CPU Time Spent: 10 seconds 900 msec
OK
LEWIS,  BENJAMIN L      FIRE ENGINEER-EMT      FIRE    F    Salary        99846
MORRIS,  ROBERT F       FIRE ENGINEER-EMT      FIRE    F    Salary        99846
MALCZEWSKI,  CHRISTOPHER R     FIRE ENGINEER-EMT      FIRE    F    Salary        99846
SANTANA,  KIRBY FIRE ENGINEER-EMT      FIRE    F    Salary        99846
MAKSUD,  STEVEN T       FIRE ENGINEER-EMT      FIRE    F    Salary        99846
KRAWCZYK,  BRIAN S      FIRE ENGINEER-EMT      FIRE    F    Salary        99846
PALUMBO,  EDWARD J      FIRE ENGINEER-EMT      FIRE    F    Salary        99846
SANTIAGO,  WILFREDO     FIRE ENGINEER-EMT      FIRE    F    Salary        99846
WEILER,  CHRIS S        FIRE ENGINEER-EMT      FIRE    F    Salary        99846
MATTHEWS,  AMONI        FIRE ENGINEER-EMT      FIRE    F    Salary        99846
Time taken: 90.71 seconds, Fetched: 10 row(s)
hive> ▮
```

Query 2: select dept, count(dept) from employees where t_hours > 1 group by dept;

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File Edit View Search Terminal Help

```
AGNEW,  ANTONIO E      MOTOR TRUCK DRIVER      AVIATION      F      Hourly  40          37.45
AGNEW,  MELISSA M      SERGEANT      POLICE  F      Salary      111444
AGOSTA,  JOSEPH J      POLICE OFFICER (ASSIGNED AS DETECTIVE)  POLICE  F      Salary      103932
AGOSTINELLI,  MICHAEL A FIREFIGHTER (PER ARBITRATORS AWARD)-EMT FIRE      F      Salary      107106
AGOSTINI,  LUIS R      ASST DIR      POLICE  F      Salary      95736
Time taken: 0.338 seconds, Fetched: 10 row(s)
hive> select dept, count(dept) from employees where t_hours > 1 group by dept;
Query ID = cloudera_20210911122020_4b358e42-3f65-4dd1-8cb8-202cf745422e
Total jobs = 1
Launching Job 1 out of 1
Number of reduce tasks not specified. Estimated from input data size: 1
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_1631387332964_0001, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1631387332964_0001/
Kill Command = /usr/lib/hadoop/bin/hadoop job  -kill job_1631387332964_0001
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2021-09-11 12:20:35,803 Stage-1 map = 0%,   reduce = 0%
2021-09-11 12:21:29,865 Stage-1 map = 100%,   reduce = 0%, Cumulative CPU 3.99 sec
2021-09-11 12:21:54,784 Stage-1 map = 100%,   reduce = 67%, Cumulative CPU 5.12 sec
2021-09-11 12:22:06,302 Stage-1 map = 100%,   reduce = 100%, Cumulative CPU 6.9 sec
MapReduce Total cumulative CPU time: 6 seconds 900 msec
Ended Job = job_1631387332964_0001
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1   Cumulative CPU: 6.9 sec   HDFS Read: 2261863 HDFS Write: 340 SUCCESS
Total MapReduce CPU Time Spent: 6 seconds 900 msec
OK
ANIMAL CONTRL   12
AVIATION        1214
BUDGET & MGMT   2
BUSINESS AFFAIRS        7
CITY COUNCIL    74
CULTURAL AFFAIRS        10
DAIS    745
DISABILITIES    1
FAMILY & SUPPORT        357
FINANCE 45
HEALTH  2
HOUSING & ECON DEV      3
LAW     48
MAYOR'S OFFICE  17
OEMC    1077
POLICE  24
PROCUREMENT     2
PUBLIC LIBRARY  356
PUBLIC SAFETY ADMIN     48
STREETS & SAN   1846
TRANSPORTN      726
WATER MGMNT     1558
Time taken: 122.792 seconds, Fetched: 22 row(s)
hive>
```

Query 3: Select * from employees limit 10;

```
hive> show tables;
OK
employees
records
Time taken: 0.094 seconds, Fetched: 2 row(s)
hive> select * from employees limit 10;
OK
ADRIANO,  RACQUEL ANNE  PARAMEDIC        FIRE     F      Salary       72510
AFFANEH,  MAHIR A       POLICE OFFICER  POLICE  F      Salary       93354
AFOENYI,  PHYLLIS       TITLE V PROGRAM TRAINEE I       FAMILY & SUPPORT        P      Hourly  20              13
AGAR,  BULENT B DEPUTY COMMISSIONER     WATER MGMNT     F      Salary       132972
AGEE,  LAWRENCE POLICE OFFICER  POLICE  F      Salary     90024
AGNEW,  ANTONIO E       MOTOR TRUCK DRIVER      AVIATION        F      Hourly  40              37.45
AGNEW,  MELISSA M       SERGEANT        POLICE  F      Salary       111444
AGOSTA,  JOSEPH J       POLICE OFFICER (ASSIGNED AS DETECTIVE)  POLICE  F      Salary       103932
AGOSTINELLI,  MICHAEL A FIREFIGHTER (PER ARBITRATORS AWARD)-EMT FIRE   F      Salary       107106
AGOSTINI,  LUIS R       ASST DIR        POLICE  F      Salary       95736
Time taken: 0.338 seconds, Fetched: 10 row(s)
hive> ▮
```

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