Big Data Lab

Hive Programs

1.

1. Create table “employees” with 6 attributes such as Id, Name, Age, Address, Salary, Department and load data into employees table from Employees.txt file.
2. Display the list of corresponding employee id, name and their address.
3. Write a query to group all the employees by their department and display the results.
4. Create another table department with the attributes dno and dname. Now display the department id in which each employee works along with the employee id and their age.
5. Drop the table employees

Ans.

create table employees(Id int, Name string, Age int, Address string, Salary float, DeptId int) row format delimited fields terminated by ',';

load data local inpath '/home/msrit/Downloads/Employees.txt' into TABLE employees;

1.a

SELECT Id, Name, Address from employees;

1.b

SELECT DeptId, count(\*) FROM employees GROUP BY DeptId;

1.c

create table department(DeptId int, DeptName string) row format delimited fields terminated by ',';

load data local inpath '/home/msrit/Downloads/Departments.txt' into TABLE department;

select e.DeptId, e.Name, e.Id, e.Age from employees e join department d on e.DeptId = d.DeptId;

1.d

drop table employees;

1.e

2.

1. Create table “employees” with 6 attributes such as Id, Name, Age, Address, Salary, Department and load data into employees table from Employees.txt file
2. Display the total number of employees whose details are present in the employees table.
3. Write a query to sort the employee details by their ‘id’ in descending order.
4. Create a view ‘employee\_view’ by taking id and name of employee from ‘employees’ table and display the contents of the view.
5. Drop the view and the table

Ans.

create table employees(Id int, Name string, Age int, Address string, Salary float, DeptId int) row format delimited fields terminated by ',';

load data local inpath '/home/msrit/Downloads/Employees.txt' into TABLE employees;

2.a

select count(\*) from employees;

2.b

2.c

SELECT \* from employees SORT BY Id DESC;

create view employee\_view as select Id, Name from employees;

SELECT \* from employee\_view;

2.d

drop view employee\_view;

drop table employees;

2.e

3.

1. Create table “employees” with 6 attributes such as Id, Name, Age, Address, Salary, Department and load data into employees table from Employees.txt file.
2. Write a query to display the details of the employees from the ‘employees’ table ordered by the ‘department’ attribute using the order by clause.
3. Create a table to static\_part\_employee with attributes id int, name String and partition it with the attribute salary int.
4. Insert values into static\_part\_employee by overwriting the details from employees table and pass the value of salary as 25000 for partition.
5. Display the static\_part\_employee table and then drop the same table

Ans.

create table employees(Id int, Name string, Age int, Address string, Salary float, DeptId int) row format delimited fields terminated by ',';

load data local inpath '/home/msrit/Downloads/Employees.txt' into TABLE employees;

3.a

SELECT \* FROM employees ORDER BY department;

3.b

create table if not exists static\_part\_employee(Id int, name string) partitioned by (salary float) row format delimited fields terminated by ',';

3.c

insert overwrite table static\_part\_employee partition (salary = 25000) select Id, name from employees where salary = 25000;

3.d

select \* from static\_part\_employee;

drop table static\_part\_employee;

3.e

4.

1. Create table “employees” with 6 attributes such as Id, Name, Age, Address, Salary, Department and load data into employees table from Employees.txt file.
2. Create a table employee\_rc with attributes (id int, name string, salary int) and store it as a rcfile.
3. Insert values into the employee\_ec by overwriting values from employee table.
4. Display the employee and employee\_rc table and also total salary given to all employees.
5. Write a query to display names of employees whose salary is more than 25000.

Ans.

create table employees(Id int, Name string, Age int, Address string, Salary float, DeptId int) row format delimited fields terminated by ',';

load data local inpath '/home/msrit/Downloads/Employees.txt' into TABLE employees;

4.a.

create table employee\_rc(Id int, name string, salary float) stored as rcfile;

4.b

insert overwrite table employee\_rc select Id, name, salary from employees;

4.c.

select \* from employees;

select \* from employee\_rc;

select sum(salary) from employee\_rc;

4.d.

select name from employees where salary>25000;

4.e.

5.

1. Create table “employees” with 6 attributes such as Id, Name, Age, Address, Salary, Department and load data into employees table from Employees.txt file.
2. Create a table to dynamic\_part\_employee with attributes id int, name String and partition it with the attribute salary int.
3. Insert values into dynamic\_part\_employee by overwriting the details from employees table and partition by salary. Display the dynamic\_part\_employee table.
4. Write a query to display the average, minimum and maximum salary obtained by the employees.
5. Write a query to display the number of employees under each department

Ans.

create table employees(Id int, Name string, Age int, Address string, Salary float, DeptId int) row format delimited fields terminated by ',';

load data local inpath '/home/msrit/Downloads/Employees.txt' into TABLE employees;

5.a.

create table if not exists dynamic\_part\_employee(Id int, name string) partitioned by (salary float) row format delimited fields terminated by ',';

set hive.exec.dynamic.partition=true;

set hive.exec.dynamic.partition.mode=nonstrict;

5.b.

insert overwrite table dynamic\_part\_employee partition (salary) select Id, name, salary from employees;

select \* from dynamic\_part\_employee;

5.c.

5.d.

select avg(salary), min(salary), max(salary) from employees;

SELECT DeptId, count(\*) FROM employees GROUP BY DeptId;

5.e.