EXP NO: 8	Implement a program using Hive indexes
DATE:	

AIM: -

BACKGROUND THEORY: -

PROCEDURE: -

- Switch to superuser mode using sudo su.
- Start Hive
- Create a Hive Table
- Load Data into the Table
- Create an Index on the Table
- Rebuild the Index
- Query the Table Using the Index
- Drop the Index (Optional)

CODING: -

- sudo su

- -- Step 1: Start Hive

    o hive

- -- Step 2: Create a Hive Table

    o CREATE TABLE employees (

    o   id INT,

    o   name STRING,

    o   age INT,

    o   department STRING

    o) ROW FORMAT DELIMITED

    o FIELDS TERMINATED BY ','

    o STORED AS TEXTFILE;

- -- Step 3: Load Data into the Table

    o LOAD DATA LOCAL INPATH '/path/to/your/employees.csv' INTO TABLE employees;

- -- Step 4: Create an Index on the Table

    o CREATE INDEX idx_department

    o ON TABLE employees (department)

    o AS 'org.apache.hadoop.hive.ql.index.compact.CompactIndexHandler'

    o WITH DEFERRED REBUILD;

- -- Step 5: Rebuild the Index

  - ALTER INDEX idx_department ON employees REBUILD;

- -- Step 6: Query the Table Using the Index

  - SELECT * FROM employees WHERE department = 'Sales';

- -- Step 7: Drop the Index (Optional)

  - DROP INDEX idx_department ON employees;

OUTPUT: -

```
hive> select * from emp;
OK
7839    KING      PRESIDENT           0          17/Nov/1981      5000     0          10
7698    BLAKE     MANAGER 7839      01/May/1981      2850     0        30
7782    CLARK     MANAGER 7839      06/Sep/1981      2450     0        10
7566    JONES     MANAGER 7839      04/Feb/1981      2975     0        20
7788    SCOTT     ANALYST 7566      13/Jul/87        3000     0        20
7902    FORD      ANALYST 7566      03/Dec/1981      3000     0        20
7369    SMITH     CLERK     7902    17/Dec/1980       800     0        20
7499    ALLEN     SALESMAN          7698      20/Feb/1981      1600     300        30
7521    WARD      SALESMAN          7698      22/Feb/1981      1250     500        30
7654    MARTIN    SALESMAN          7698      28/Sep/1981      1250     1400       30
7844    TURNER    SALESMAN          7698      09/Aug/1981      1500     0          30
7876    ADAMS     CLERK     7788    13/Jul/87        1100     0        20
7900    JAMES     CLERK     7698    03/Dec/1981       950     0        30
7934    MILLER    CLERK     7782    23/Jan/1982      1300     0        10
Time taken: 0.099 seconds, Fetched: 14 row(s)
hive> CREATE INDEX idx_empid_emp ON TABLE emp(empno) AS 'org.apache.hadoop.hive.
ql.index.compact.CompactIndexHandler' WITH DEFERRED REBUILD;
OK
Time taken: 0.318 seconds
hive>
```