

# HIVE - VIEW AND INDEXES

[http://www.tutorialspoint.com/hive/hive\\_views\\_and\\_indexes.htm](http://www.tutorialspoint.com/hive/hive_views_and_indexes.htm)

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This chapter describes how to create and manage views. Views are generated based on user requirements. You can save any result set data as a view. The usage of view in Hive is same as that of the view in SQL. It is a standard RDBMS concept. We can execute all DML operations on a view.

## Creating a View

You can create a view at the time of executing a SELECT statement. The syntax is as follows:

```
CREATE VIEW [IF NOT EXISTS] view_name [(column_name [COMMENT column_comment], ...) ]
[COMMENT table_comment]
AS SELECT ...
```

## Example

Let us take an example for view. Assume employee table as given below, with the fields Id, Name, Salary, Designation, and Dept. Generate a query to retrieve the employee details who earn a salary of more than Rs 30000. We store the result in a view named **emp\_30000**.

ID	Name	Salary	Designation	Dept
1201	Gopal	45000	Technical manager	TP
1202	Manisha	45000	Proofreader	PR
1203	Masthanvali	40000	Technical writer	TP
1204	Krian	40000	Hr Admin	HR
1205	Kranthi	30000	Op Admin	Admin

The following query retrieves the employee details using the above scenario:

```
hive> CREATE VIEW emp_30000 AS
SELECT * FROM employee
WHERE salary>30000;
```

## Dropping a View

Use the following syntax to drop a view:

```
DROP VIEW view_name
```

The following query drops a view named as emp\_30000:

```
hive> DROP VIEW emp_30000;
```

## Creating an Index

An Index is nothing but a pointer on a particular column of a table. Creating an index means creating a pointer on a particular column of a table. Its syntax is as follows:

```
CREATE INDEX index_name
ON TABLE base_table_name (col_name, ...)
AS 'index.handler.class.name'
[WITH DEFERRED REBUILD]
[IDXPROPERTIES (property_name=property_value, ...)]
[IN TABLE index_table_name]
[PARTITIONED BY (col_name, ...)]
[
  [ ROW FORMAT ...] STORED AS ...
```

```
| STORED BY ...  
]  
[LOCATION hdfs_path]  
[TBLPROPERTIES (...)]
```

## Example

Let us take an example for index. Use the same employee table that we have used earlier with the fields Id, Name, Salary, Designation, and Dept. Create an index named `index_salary` on the salary column of the employee table.

The following query creates an index:

```
hive> CREATE INDEX index_salary ON TABLE employee(salary)  
AS 'org.apache.hadoop.hive.ql.index.compact.CompactIndexHandler';
```

It is a pointer to the salary column. If the column is modified, the changes are stored using an index value.

## Dropping an Index

The following syntax is used to drop an index:

```
DROP INDEX <index_name> ON <table_name>
```

The following query drops an index named `index_salary`:

```
hive> DROP INDEX index_salary ON employee;
```