ETL ASSIGNMENT TASKS:

1. Ingest data from Amazon RDS to HDFS using Sqoop.

```
sqoop import --connect jdbc:mysql://upgradawsrds.cpclxrkdvwmz.us-east-1.rds.amazonaws.com/indiaahs2012_13 --username upgraduser --password upgraduser --table Key_indicator_districtwise
```

2. Command to see the list of imported data

```
[cloudera@quickstart ~]$ hdfs dfs -ls
[cloudera@quickstart ~]$ hdfs dfs -ls Key_indicator_districtwise
```

3. Create an external table in HIVE for the ingested data containing all the columns as given in this document. Ingest the data from HDFS to the HIVE table. Verify that the ingestion is successfully accomplished.

```
Create External Table key_indicative_ext (
ID int,
State_Name varchar(100),
State_District_Name varchar(100),
AA_Sample_Units_Total double,
AA_Sample_Units_Rural double,
AA_Sample_Units_Urban double,
AA_Households_Total double,
AA_Households_Rural double,
AA_Households_Urban double,
AA_Population_Total double,
AA_Population_Rural double,
AA_Population_Urban double,
AA_Ever_Married_Women_Aged_15_49_Years_Total double,
AA_Ever_Married_Women_Aged_15_49_Years_Rural double,
AA_Ever_Married_Women_Aged_15_49_Years_Urban double,
AA_Currently_Married_Women_Aged_15_49_Years_Total double,
AA_Currently_Married_Women_Aged_15_49_Years_Rural double,
AA_Currently_Married_Women_Aged_15_49_Years_Urban double,
AA_Children_12_23_Months_Total double,
AA_Children_12_23_Months_Rural double,
AA_Children_12_23_Months_Urban double,
BB_Average_Household_Size_Sc_Total double,
BB_Average_Household_Size_Sc_Rural double,
BB_Average_Household_Size_Sc_Urban double,
BB_Average_Household_Size_St_Total double,
BB_Average_Household_Size_St_Rural double,
BB_Average_Household_Size_St_Urban double,
BB_Average_Household_Size_All_Total double,
BB_Average_Household_Size_All_Rural double,
BB_Average_Household_Size_All_Urban double,
BB_Population_Below_Age_15_Years_Total double,
BB_Population_Below_Age_15_Years_Rural double,
BB_Population_Below_Age_15_Years_Urban double,
BB_Dependency_Ratio_Total double,
BB_Dependency_Ratio_Rural double,
BB_Dependency_Ratio_Urban double,
BB_Currently_Married_Illiterate_Women_Aged_15_49_Years_Total double,
BB_Currently_Married_Illiterate_Women_Aged_15_49_Years_Rural double,
BB_Currently_Married_Illiterate_Women_Aged_15_49_Years_Urban double,
CC_Sex_Ratio_At_Birth_Total double,
CC_Sex_Ratio_At_Birth_Rural double,
CC_Sex_Ratio_At_Birth_Urban double,
```

```
CC_Sex_Ratio_0_4_Years_Total double,
CC_Sex_Ratio_0_4_Years_Rural double,
CC_Sex_Ratio_0_4_Years_Urban double,
CC_Sex_Ratio_All_Ages_Total double,
CC_Sex_Ratio_All_Ages_Rural double,
CC_Sex_Ratio_All_Ages_Urban double,
DD_Person_Total double,
DD_Person_Rural double,
DD_Person_Urban double,
DD_Male_Total double,
DD_Male_Rural double,
DD_Male_Urban double,
DD_Female_Total double,
DD_Female_Rural double,
DD_Female_Urban double,
EE_Marriages_Among_Females_Below_Legal_Age_18_Years_Total double,
EE_Marriages_Among_Females_Below_Legal_Age_18_Years_Rural double,
EE_Marriages_Among_Females_Below_Legal_Age_18_Years_Urban double,
EE_Marriages_Among_Males_Below_Legal_Age_21_Years_Total double,
EE_Marriages_Among_Males_Below_Legal_Age_21_Years_Rural double,
EE_Marriages_Among_Males_Below_Legal_Age_21_Years_Urban double,
EE_Married_Women_20_24_Years_Married_Before_18_Years_Total double,
EE_Married_Women_20_24_Years_Married_Before_18_Years_Rural double,
EE_Married_Women_20_24_Years_Married_Before_18_Years_Urban double,
EE_Married_Men_25_29_Years_Married_Before_21_Years_Total double,
EE_Married_Men_25_29_Years_Married_Before_21_Years_Rural double,
EE_Married_Men_25_29_Years_Married_Before_21_Years_Urban double,
EE_Mean_Age_At_Marriage_Male_Total double,
EE_Mean_Age_At_Marriage_Male_Rural double,
EE_Mean_Age_At_Marriage_Male_Urban double,
EE_Mean_Age_At_Marriage_Female_Total double,
EE_Mean_Age_At_Marriage_Female_Rural double,
EE_Mean_Age_At_Marriage_Female_Urban double,
FF_Children_Attending_School_Age_6_17_Years_Person_Total double,
FF_Children_Attending_School_Age_6_17_Years_Person_Rural double,
FF_Children_Attending_School_Age_6_17_Years_Person_Urban double,
FF_Children_Attending_School_Age_6_17_Years_Male_Total double,
FF_Children_Attending_School_Age_6_17_Years_Male_Rural double,
FF_Children_Attending_School_Age_6_17_Years_Male_Urban double,
FF_Children_Attending_School_Age_6_17_Years_Female_Total double,
FF_Children_Attending_School_Age_6_17_Years_Female_Rural double,
FF_Children_Attending_School_Age_6_17_Years_Female_Urban double,
FF_Children_Attended_Before_Drop_Out_Age_6_17_Years_Person_Total double,
FF_Children_Attended_Before_Drop_Out_Age_6_17_Years_Person_Rural double,
FF_Children_Attended_Before_Drop_Out_Age_6_17_Years_Person_Urban double,
FF_Children_Attended_Before_Drop_Out_Age_6_17_Years_Male_Total double,
FF_Children_Attended_Before_Drop_Out_Age_6_17_Years_Male_Rural double,
FF_Children_Attended_Before_Drop_Out_Age_6_17_Years_Male_Urban double,
FF_Children_Attended_Before_Drop_Out_Age_6_17_Years_Female_Total double,
FF_Children_Attended_Before_Drop_Out_Age_6_17_Years_Female_Rural double,
FF_Children_Attended_Before_Drop_Out_Age_6_17_Years_Female_Urban double,
GG_Children_Aged_5_14_Years_Engaged_In_Work_Person_Total double,
GG_Children_Aged_5_14_Years_Engaged_In_Work_Person_Rural double,
GG_Children_Aged_5_14_Years_Engaged_In_Work_Person_Urban double,
GG_Children_Aged_5_14_Years_Engaged_In_Work_Male_Total double,
GG_Children_Aged_5_14_Years_Engaged_In_Work_Male_Rural double,
GG_Children_Aged_5_14_Years_Engaged_In_Work_Male_Urban double,
```

```
GG_Children_Aged_5_14_Years_Engaged_In_Work_Female_Total double,
GG_Children_Aged_5_14_Years_Engaged_In_Work_Female_Rural double,
GG_Children_Aged_5_14_Years_Engaged_In_Work_Female_Urban double,
GG_Work_Participation_Rate_15_Years_And_Above_Person_Total double,
GG_Work_Participation_Rate_15_Years_And_Above_Person_Rural double,
GG_Work_Participation_Rate_15_Years_And_Above_Person_Urban double,
GG_Work_Participation_Rate_15_Years_And_Above_Male_Total double,
GG_Work_Participation_Rate_15_Years_And_Above_Male_Rural double,
GG_Work_Participation_Rate_15_Years_And_Above_Male_Urban double,
GG_Work_Participation_Rate_15_Years_And_Above_Female_Total double,
GG_Work_Participation_Rate_15_Years_And_Above_Female_Rural double,
GG_Work_Participation_Rate_15_Years_And_Above_Female_Urban double,
HH_Prevalence_Disability_Per_100000_Population_Person_Total double,
HH_Prevalence_Disability_Per_100000_Population_Person_Rural double,
HH_Prevalence_Disability_Per_100000_Population_Person_Urban double,
HH_Prevalence_Disability_Per_100000_Population_Male_Total double,
HH_Prevalence_Disability_Per_100000_Population_Male_Rural double,
HH_Prevalence_Disability_Per_100000_Population_Male_Urban double,
HH_Prevalence_Disability_Per_100000_Population_Female_Total double,
HH_Prevalence_Disability_Per_100000_Population_Female_Rural double,
HH_Prevalence_Disability_Per_100000_Population_Female_Urban double,
II_Injured_By_Type_Of_Treatment_Per_100000_Severe_Person_Total double,
II_Injured_By_Type_Of_Treatment_Per_100000_Severe_Person_Rural double,
II_Injured_By_Type_Of_Treatment_Per_100000_Severe_Person_Urban double,
II_Injured_By_Type_Of_Treatment_Per_100000_Severe_Male_Total double,
II_Injured_By_Type_Of_Treatment_Per_100000_Severe_Male_Rural double,
II_Injured_By_Type_Of_Treatment_Per_100000_Severe_Male_Urban double,
II_Injured_By_Type_Of_Treatment_Per_100000_Severe_Female_Total double,
II_Injured_By_Type_Of_Treatment_Per_100000_Severe_Female_Rural double,
II_Injured_By_Type_Of_Treatment_Per_100000_Severe_Female_Urban double,
II_Injured_By_Type_Of_Treatment_Per_100000_Major_Person_Total double,
II_Injured_By_Type_Of_Treatment_Per_100000_Major_Person_Rural double,
II_Injured_By_Type_Of_Treatment_Per_100000_Major_Person_Urban double,
II_Injured_By_Type_Of_Treatment_Per_100000_Major_Male_Total double,
II_Injured_By_Type_Of_Treatment_Per_100000_Major_Male_Rural double,
II_Injured_By_Type_Of_Treatment_Per_100000_Major_Male_Urban double,
II_Injured_By_Type_Of_Treatment_Per_100000_Major_Female_Total double,
II_Injured_By_Type_Of_Treatment_Per_100000_Major_Female_Rural double,
II_Injured_By_Type_Of_Treatment_Per_100000_Major_Female_Urban double,
II_Injured_By_Type_Of_Treatment_Per_100000_Minor_Person_Total double,
II_Injured_By_Type_Of_Treatment_Per_100000_Minor_Person_Rural double,
II_Injured_By_Type_Of_Treatment_Per_100000_Minor_Person_Urban double,
II_Injured_By_Type_Of_Treatment_Per_100000_Minor_Male_Total double,
II_Injured_By_Type_Of_Treatment_Per_100000_Minor_Male_Rural double,
II_Injured_By_Type_Of_Treatment_Per_100000_Minor_Male_Urban double,
II_Injured_By_Type_Of_Treatment_Per_100000_Minor_Female_Total double,
II_Injured_By_Type_Of_Treatment_Per_100000_Minor_Female_Rural double,
II_Injured_By_Type_Of_Treatment_Per_100000_Minor_Female_Urban double,
JJ_Acute_Illness_Per_100000_Diarrhoea_Dysentery_Person_Total double,
JJ_Acute_Illness_Per_100000_Diarrhoea_Dysentery_Person_Rural double,
JJ_Acute_Illness_Per_100000_Diarrhoea_Dysentery_Person_Urban double,
JJ_Acute_Illness_Per_100000_Diarrhoea_Dysentery_Male_Total double,
JJ_Acute_Illness_Per_100000_Diarrhoea_Dysentery_Male_Rural double,
JJ_Acute_Illness_Per_100000_Diarrhoea_Dysentery_Male_Urban double,
JJ_Acute_Illness_Per_100000_Diarrhoea_Dysentery_Female_Total double,
JJ_Acute_Illness_Per_100000_Diarrhoea_Dysentery_Female_Rural double,
JJ_Acute_Illness_Per_100000_Diarrhoea_Dysentery_Female_Urban double,
```

```
JJ_Acute_Illness_Per_100000_Respiratory_Infection_Person_Total double,
JJ_Acute_Illness_Per_100000_Respiratory_Infection_Person_Rural double,
JJ_Acute_Illness_Per_100000_Respiratory_Infection_Person_Urban double,
JJ_Acute_Illness_Per_100000_Respiratory_Infection_Male_Total double,
JJ_Acute_Illness_Per_100000_Respiratory_Infection_Male_Rural double,
JJ_Acute_Illness_Per_100000_Respiratory_Infection_Male_Urban double,
JJ_Acute_Illness_Per_100000_Respiratory_Infection_Female_Total double,
JJ_Acute_Illness_Per_100000_Respiratory_Infection_Female_Rural double,
JJ_Acute_Illness_Per_100000_Respiratory_Infection_Female_Urban double,
JJ_Acute_Illness_Per_100000_Fever_All_Types_Person_Total double,
JJ_Acute_Illness_Per_100000_Fever_All_Types_Person_Rural double,
JJ_Acute_Illness_Per_100000_Fever_All_Types_Person_Urban double,
JJ_Acute_Illness_Per_100000_Fever_All_Types_Male_Total double,
JJ_Acute_Illness_Per_100000_Fever_All_Types_Male_Rural double,
JJ_Acute_Illness_Per_100000_Fever_All_Types_Male_Urban double,
JJ_Acute_Illness_Per_100000_Fever_All_Types_Female_Total double,
JJ_Acute_Illness_Per_100000_Fever_All_Types_Female_Rural double,
JJ_Acute_Illness_Per_100000_Fever_All_Types_Female_Urban double,
JJ_Acute_Illness_Per_100000_Any_Type_Of_Acute_Person_Total double,
JJ_Acute_Illness_Per_100000_Any_Type_Of_Acute_Person_Rural double,
JJ_Acute_Illness_Per_100000_Any_Type_Of_Acute_Person_Urban double,
JJ_Acute_Illness_Per_100000_Any_Type_Of_Acute_Male_Total double,
JJ_Acute_Illness_Per_100000_Any_Type_Of_Acute_Male_Rural double,
JJ_Acute_Illness_Per_100000_Any_Type_Of_Acute_Male_Urban double,
JJ_Acute_Illness_Per_100000_Any_Type_Of_Acute_Female_Total double,
JJ_Acute_Illness_Per_100000_Any_Type_Of_Acute_Female_Rural double,
JJ_Acute_Illness_Per_100000_Any_Type_Of_Acute_Female_Urban double,
JJ_Acute_Illness_And_Taking_Treatment_Person_Total double,
JJ_Acute_Illness_And_Taking_Treatment_Person_Rural double,
JJ_Acute_Illness_And_Taking_Treatment_Person_Urban double,
JJ_Acute_Illness_And_Taking_Treatment_Male_Total double,
JJ_Acute_Illness_And_Taking_Treatment_Male_Rural double,
JJ_Acute_Illness_And_Taking_Treatment_Male_Urban double,
JJ_Acute_Illness_And_Taking_Treatment_Female_Total double,
JJ_Acute_Illness_And_Taking_Treatment_Female_Rural double,
JJ_Acute_Illness_And_Taking_Treatment_Female_Urban double,
JJ_Acute_Illness_And_Taking_Treatment_Government_Person_Total double,
JJ_Acute_Illness_And_Taking_Treatment_Government_Person_Rural double,
JJ_Acute_Illness_And_Taking_Treatment_Government_Person_Urban double,
JJ_Acute_Illness_And_Taking_Treatment_Government_Male_Total double,
JJ_Acute_Illness_And_Taking_Treatment_Government_Male_Rural double,
JJ_Acute_Illness_And_Taking_Treatment_Government_Male_Urban double,
JJ_Acute_Illness_And_Taking_Treatment_Government_Female_Total double,
JJ_Acute_Illness_And_Taking_Treatment_Government_Female_Rural double,
JJ_Acute_Illness_And_Taking_Treatment_Government_Female_Urban double,
KK_Symptoms_Of_Chronic_Illness_Per_100000_Person_Total double,
KK_Symptoms_Of_Chronic_Illness_Per_100000_Person_Rural double,
KK_Symptoms_Of_Chronic_Illness_Per_100000_Person_Urban double,
KK_Symptoms_Of_Chronic_Illness_Per_100000_Male_Total double,
KK_Symptoms_Of_Chronic_Illness_Per_100000_Male_Rural double,
KK_Symptoms_Of_Chronic_Illness_Per_100000_Male_Urban double,
KK_Symptoms_Of_Chronic_Illness_Per_100000_Female_Total double,
KK_Symptoms_Of_Chronic_Illness_Per_100000_Female_Rural double,
KK_Symptoms_Of_Chronic_Illness_Per_100000_Female_Urban double,
KK_Chronic_Illness_And_Sought_Medical_Care_Person_Total double,
KK_Chronic_Illness_And_Sought_Medical_Care_Person_Rural double,
KK_Chronic_Illness_And_Sought_Medical_Care_Person_Urban double,
```

```
KK_Chronic_Illness_And_Sought_Medical_Care_Male_Total double,
KK_Chronic_Illness_And_Sought_Medical_Care_Male_Rural double,
KK_Chronic_Illness_And_Sought_Medical_Care_Male_Urban double,
KK_Chronic_Illness_And_Sought_Medical_Care_Female_Total double,
KK_Chronic_Illness_And_Sought_Medical_Care_Female_Rural double,
KK_Chronic_Illness_And_Sought_Medical_Care_Female_Urban double,
KK_Diag_For_Chronic_Ill_Per_100000_Diabetes_Person_Total double,
KK_Diag_For_Chronic_Ill_Per_100000_Diabetes_Person_Rural double,
KK_Diag_For_Chronic_Ill_Per_100000_Diabetes_Person_Urban double,
KK_Diag_For_Chronic_Ill_Per_100000_Diabetes_Male_Total double,
KK_Diag_For_Chronic_Ill_Per_100000_Diabetes_Male_Rural double,
KK_Diag_For_Chronic_Ill_Per_100000_Diabetes_Male_Urban double,
KK_Diag_For_Chronic_Ill_Per_100000_Diabetes_Female_Total double,
KK_Diag_For_Chronic_Ill_Per_100000_Diabetes_Female_Rural double,
KK_Diag_For_Chronic_Ill_Per_100000_Diabetes_Female_Urban double,
KK_Diag_For_Chronic_Ill_Per_100000_Hypertension_Person_Total double,
KK_Diag_For_Chronic_Ill_Per_100000_Hypertension_Person_Rural double,
KK_Diag_For_Chronic_Ill_Per_100000_Hypertension_Person_Urban double,
KK_Diag_For_Chronic_Ill_Per_100000_Hypertension_Male_Total double,
KK_Diag_For_Chronic_Ill_Per_100000_Hypertension_Male_Rural double,
KK_Diag_For_Chronic_Ill_Per_100000_Hypertension_Male_Urban double,
KK_Diag_For_Chronic_Ill_Per_100000_Hypertension_Female_Total double,
KK_Diag_For_Chronic_Ill_Per_100000_Hypertension_Female_Rural double,
KK_Diag_For_Chronic_Ill_Per_100000_Hypertension_Female_Urban double,
KK_Diag_For_Chronic_Ill_Per_100000_Tb_Person_Total double,
KK_Diag_For_Chronic_Ill_Per_100000_Tb_Person_Rural double,
KK_Diag_For_Chronic_Ill_Per_100000_Tb_Person_Urban double,
KK_Diag_For_Chronic_Ill_Per_100000_Tb_Male_Total double,
KK_Diag_For_Chronic_Ill_Per_100000_Tb_Male_Rural double,
KK_Diag_For_Chronic_Ill_Per_100000_Tb_Male_Urban double,
KK_Diag_For_Chronic_Ill_Per_100000_Tb_Female_Total double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Tb_Female_Rural double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Tb_Female_Urban double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Asthma_Person_Total double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Asthma_Person_Rural double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Asthma_Person_Urban double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Asthma_Male_Total double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Asthma_Male_Rural double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Asthma_Male_Urban double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Asthma_Female_Total double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Asthma_Female_Rural double,
KK_Diagnosed_For_Chronic_Illness_Per_100000_Asthma_Female_Urban double,
KK_Diag_For_Chronic_Illness_Per_100000_Arthritis_Person_Total double,
KK_Diag_For_Chronic_Illness_Per_100000_Arthritis_Person_Rural double,
KK_Diag_For_Chronic_Illness_Per_100000_Arthritis_Person_Urban double,
KK_Diag_For_Chronic_Illness_Per_100000_Arthritis_Male_Total double,
KK_Diag_For_Chronic_Illness_Per_100000_Arthritis_Male_Rural double,
KK_Diag_For_Chronic_Illness_Per_100000_Arthritis_Male_Urban double,
KK_Diag_For_Chronic_Illness_Per_100000_Arthritis_Female_Total double,
KK_Diag_For_Chronic_Illness_Per_100000_Arthritis_Female_Rural double,
KK_Diag_For_Chronic_Illness_Per_100000_Arthritis_Female_Urban double,
KK_Diag_For_Chronic_Illness_Per_100000_Any_Kind_Person_Total double,
KK_Diag_For_Chronic_Illness_Per_100000_Any_Kind_Person_Rural double,
KK_Diag_For_Chronic_Illness_Per_100000_Any_Kind_Of_Person_Urban double,
KK_Diag_For_Chronic_Illness_Per_100000_Any_Kind_Of_Male_Total double,
KK_Diag_For_Chronic_Illness_Per_100000_Any_Kind_Of_Male_Rural double,
KK_Diag_For_Chronic_Illness_Per_100000_Any_Kind_Of_Male_Urban double,
```

```
KK_Diag_For_Chronic_Illness_Per_100000_Any_Kind_Of_Female_Total double,
KK_Diag_For_Chronic_Illness_Per_100000_Any_Kind_Of_Female_Rural double,
KK_Diag_For_Chronic_Illness_Per_100000_Any_Kind_Of_Female_Urban double,
KK_Chronic_Illness_And_Getting_Regular_Treatment_Person_Total double,
KK_Chronic_Illness_And_Getting_Regular_Treatment_Person_Rural double,
KK_Chronic_Illness_And_Getting_Regular_Treatment_Person_Urban double,
KK_Chronic_Illness_And_Getting_Regular_Treatment_Male_Total double,
KK_Chronic_Illness_And_Getting_Regular_Treatment_Male_Rural double,
KK_Chronic_Illness_And_Getting_Regular_Treatment_Male_Urban double,
KK_Chronic_Illness_And_Getting_Regular_Treatment_Female_Total double,
KK_Chronic_Illness_And_Getting_Regular_Treatment_Female_Rural double,
KK_Chronic_Illness_And_Getting_Regular_Treatment_Female_Urban double,
KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Person_Total double,
KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Person_Rural double,
KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Person_Urban double,
KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Male_Total double,
KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Male_Rural double,
KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Male_Urban double,
KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Female_Total double,
KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Female_Rural double,
KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Female_Urban double,
LL_Crude_Birth_Rate_Cbr_Total double,
LL_Crude_Birth_Rate_Cbr_Rural double,
LL_Crude_Birth_Rate_Cbr_Urban double,
LL_Natural_Growth_Rate_Total double,
LL_Natural_Growth_Rate_Rural double,
LL_Natural_Growth_Rate_Urban double,
LL_Total_Fertility_Rate_Total double,
LL_Total_Fertility_Rate_Rural double,
LL_Total_Fertility_Rate_Urban double,
LL_Women_20_24_Reporting_Birth_Of_Order_2__Above_Total double,
LL_Women_20_24_Reporting_Birth_Of_Order_2__Above_Rural double,
LL_Women_20_24_Reporting_Birth_Of_Order_2__Above_Urban double,
LL_Women_Reporting_Birth_Of_Order_3__Above_Total double,
LL_Women_Reporting_Birth_Of_Order_3__Above_Rural double,
LL_Women_Reporting_Birth_Of_Order_3__Above_Urban double,
LL_Women_With_Two_Children_Wanting_No_More_Children_Total double,
LL_Women_With_Two_Children_Wanting_No_More_Children_Rural double,
LL_Women_With_Two_Children_Wanting_No_More_Children_Urban double,
LL_Women_15_19_Years_Who_Were_Already_Mothers_Or_Pregnant_Total double,
LL_Women_15_19_Years_Who_Were_Already_Mothers_Or_Pregnant_Rural double,
LL_Women_15_19_Years_Who_Were_Already_Mothers_Or_Pregnant_Urban double,
LL_Median_Age_At_First_Live_Birth_Of_Women_15_49_Years_Total double,
LL_Median_Age_At_First_Live_Birth_Of_Women_15_49_Years_Rural double,
LL_Median_Age_At_First_Live_Birth_Of_Women_15_49_Years_Urban double,
LL_Median_Age_At_First_Live_Birth_Of_Women_25_49_Years_Total double,
LL_Median_Age_At_First_Live_Birth_Of_Women_25_49_Years_Rural double,
LL_Median_Age_At_First_Live_Birth_Of_Women_25_49_Years_Urban double,
LL_Live_Births_Taking_Place_After_An_Interval_Of_36_Months_Total double,
LL_Live_Births_Taking_Place_After_An_Interval_Of_36_Months_Rural double,
LL_Live_Births_Taking_Place_After_An_Interval_Of_36_Months_Urban double,
LL_Mean_Number_Of_Children_Ever_Born_To_Women_15_49_Years_Total double,
LL_Mean_Number_Of_Children_Ever_Born_To_Women_15_49_Years_Rural double,
LL_Mean_Number_Of_Children_Ever_Born_To_Women_15_49_Years_Urban double,
LL_Mean_Number_Of_Children_Surviving_To_Women_15_49_Years_Total double,
LL_Mean_Number_Of_Children_Surviving_To_Women_15_49_Years_Rural double,
LL_Mean_Number_Of_Children_Surviving_To_Women_15_49_Years_Urban double,
```

```
LL_Mean_Number_Of_Children_Ever_Born_To_Women_45_49_Years_Total double,
LL_Mean_Number_Of_Children_Ever_Born_To_Women_45_49_Years_Rural double,
LL_Mean_Number_Of_Children_Ever_Born_To_Women_45_49_Years_Urban double,
MM_Pregnancy_To_Women_15_49_Years_Resulting_In_Abortion_Total double,
MM_Pregnancy_To_Women_15_49_Years_Resulting_In_Abortion_Rural double,
MM_Pregnancy_To_Women_15_49_Years_Resulting_In_Abortion_Urban double,
MM_Women_Who_Received_Any_Anc_Before_Abortion_Total double,
MM_Women_Who_Received_Any_Anc_Before_Abortion_Rural double,
MM_Women_Who_Received_Any_Anc_Before_Abortion_Urban double,
MM_Women_Who_Went_For_Ultrasound_Before_Abortion_Total double,
MM_Women_Who_Went_For_Ultrasound_Before_Abortion_Rural double,
MM_Women_Who_Went_For_Ultrasound_Before_Abortion_Urban double,
MM_Average_Month_Of_Pregnancy_At_The_Time_Of_Abortion_Total double,
MM_Average_Month_Of_Pregnancy_At_The_Time_Of_Abortion_Rural double,
MM_Average_Month_Of_Pregnancy_At_The_Time_Of_Abortion_Urban double,
MM_Abortion_Performed_By_Skilled_Health_Personnel_Total double,
MM_Abortion_Performed_By_Skilled_Health_Personnel_Rural double,
MM_Abortion_Performed_By_Skilled_Health_Personnel_Urban double,
MM_Abortion_Taking_Place_In_Institution_Total double,
MM_Abortion_Taking_Place_In_Institution_Rural double,
MM_Abortion_Taking_Place_In_Institution_Urban double,
NN_Current_Usage_Any_Method_Total double,
NN_Current_Usage_Any_Method_Rural double,
NN_Current_Usage_Any_Method_Urban double,
NN_Current_Usage_Any_Modern_Method_Total double,
NN_Current_Usage_Any_Modern_Method_Rural double,
NN_Current_Usage_Any_Modern_Method_Urban double,
NN_Current_Usage_Female_Sterilization_Total double,
NN_Current_Usage_Female_Sterilization_Rural double,
NN_Current_Usage_Female_Sterilization_Urban double,
NN_Current_Usage_Male_Sterilization_Total double,
NN_Current_Usage_Male_Sterilization_Rural double,
NN_Current_Usage_Male_Sterilization_Urban double,
NN_Current_Usage_Copper_T_Iud_Total double,
NN_Current_Usage_Copper_T_Iud_Rural double,
NN_Current_Usage_Copper_T_Iud_Urban double,
NN_Current_Usage_Pills_Total double,
NN_Current_Usage_Pills_Rural double,
NN_Current_Usage_Pills_Urban double,
NN_Current_Usage_Condom_Nirodh_Total double,
NN_Current_Usage_Condom_Nirodh_Rural double,
NN_Current_Usage_Condom_Nirodh_Urban double,
NN_Current_Usage_Emergency_Contraceptive_Pills_Total double,
NN_Current_Usage_Emergency_Contraceptive_Pills_Rural double,
NN_Current_Usage_Emergency_Contraceptive_Pills_Urban double,
NN_Current_Usage_Any_Traditional_Method_Total double,
NN_Current_Usage_Any_Traditional_Method_Rural double,
NN_Current_Usage_Any_Traditional_Method_Urban double,
NN_Current_Usage_Periodic_Abstinence_Total double,
NN_Current_Usage_Periodic_Abstinence_Rural double,
NN_Current_Usage_Periodic_Abstinence_Urban double,
NN_Current_Usage_Withdrawal_Total double,
NN_Current_Usage_Withdrawal_Rural double,
NN_Current_Usage_Withdrawal_Urban double,
NN_Current_Usage_Lam_Total double,
NN_Current_Usage_Lam_Rural double,
NN_Current_Usage_Lam_Urban double,
```

```
OO_Unmet_Need_For_Spacing_Total double,
OO_Unmet_Need_For_Spacing_Rural double,
OO_Unmet_Need_For_Spacing_Urban double,
OO_Unmet_Need_For_Limiting_Total double,
OO_Unmet_Need_For_Limiting_Rural double,
OO_Unmet_Need_For_Limiting_Urban double,
OO_Total_Unmet_Need_Total double,
OO_Total_Unmet_Need_Rural double,
OO_Total_Unmet_Need_Urban double,
PP_Married_Pregnant_Women_15_49_Years_Registered_For_Anc_Total double,
PP_Married_Pregnant_Women_15_49_Years_Registered_For_Anc_Rural double,
PP_Married_Pregnant_Women_15_49_Years_Registered_For_Anc_Urban double,
PP_Mothers_Who_Received_Any_Antenatal_Check_Up_Total double,
PP_Mothers_Who_Received_Any_Antenatal_Check_Up_Rural double,
PP_Mothers_Who_Received_Any_Antenatal_Check_Up_Urban double,
PP_Mothers_Who_Had_Antenatal_Check_Up_In_First_Trimester_Total double,
PP_Mothers_Who_Had_Antenatal_Check_Up_In_First_Trimester_Rural double,
PP_Mothers_Who_Had_Antenatal_Check_Up_In_First_Trimester_Urban double,
PP_Mothers_Who_Received_3_Or_More_Antenatal_Care_Total double,
PP_Mothers_Who_Received_3_Or_More_Antenatal_Care_Rural double,
PP_Mothers_Who_Received_3_Or_More_Antenatal_Care_Urban double,
PP_Mothers_Who_Received_At_Least_One_Tt_Injection_Total double,
PP_Mothers_Who_Received_At_Least_One_Tt_Injection_Rural double,
PP_Mothers_Who_Received_At_Least_One_Tt_Injection_Urban double,
PP_Mothers_Who_Consumed_Ifa_For_100_Days_Or_More_Total double,
PP_Mothers_Who_Consumed_Ifa_For_100_Days_Or_More_Rural double,
PP_Mothers_Who_Consumed_Ifa_For_100_Days_Or_More_Urban double,
PP_Mothers_Who_Had_Full_Antenatal_Check_Up_Total double,
PP_Mothers_Who_Had_Full_Antenatal_Check_Up_Rural double,
PP_Mothers_Who_Had_Full_Antenatal_Check_Up_Urban double,
PP_Mothers_Who_Received_Anc_From_Govt_Source_Total double,
PP_Mothers_Who_Received_Anc_From_Govt_Source_Rural double,
PP_Mothers_Who_Received_Anc_From_Govt_Source_Urban double,
PP_Mothers_Whose_Blood_Pressure_Bp_Taken_Total double,
PP_Mothers_Whose_Blood_Pressure_Bp_Taken_Rural double,
PP_Mothers_Whose_Blood_Pressure_Bp_Taken_Urban double,
PP_Mothers_Whose_Blood_Taken_For_Hb_Total double,
PP_Mothers_Whose_Blood_Taken_For_Hb_Rural double,
PP_Mothers_Whose_Blood_Taken_For_Hb_Urban double,
PP_Mothers_Who_Underwent_Ultrasound_Total double,
PP_Mothers_Who_Underwent_Ultrasound_Rural double,
PP_Mothers_Who_Underwent_Ultrasound_Urban double,
QQ_Institutional_Delivery_Total double,
QQ_Institutional_Delivery_Rural double,
QQ_Institutional_Delivery_Urban double,
QQ_Delivery_At_Government_Institution_Total double,
QQ_Delivery_At_Government_Institution_Rural double,
QQ_Delivery_At_Government_Institution_Urban double,
QQ_Delivery_At_Private_Institution_Total double,
QQ_Delivery_At_Private_Institution_Rural double,
QQ_Delivery_At_Private_Institution_Urban double,
QQ_Delivery_At_Home_Total double,
QQ_Delivery_At_Home_Rural double,
QQ_Delivery_At_Home_Urban double,
QQ_Delivery_At_Home_Conducted_By_Skilled_Health_Personnel_Total double,
QQ_Delivery_At_Home_Conducted_By_Skilled_Health_Personnel_Rural double,
QQ_Delivery_At_Home_Conducted_By_Skilled_Health_Personnel_Urban double,
```

```
QQ_Safe_Delivery_Total double,
QQ_Safe_Delivery_Rural double,
QQ_Safe_Delivery_Urban double,
QQ_Caesarean_Out_Of_Total_Delivery_In_Government_Total double,
QQ_Caesarean_Out_Of_Total_Delivery_In_Government_Rural double,
QQ_Caesarean_Out_Of_Total_Delivery_In_Government_Urban double,
QQ_Caesarean_Out_Of_Total_Delivery_In_Private_Total double,
QQ_Caesarean_Out_Of_Total_Delivery_In_Private_Rural double,
QQ_Caesarean_Out_Of_Total_Delivery_In_Private_Urban double,
RR_Less_Than_24_Hrs_Stay_In_Institution_After_Delivery_Total double,
RR_Less_Than_24_Hrs_Stay_In_Institution_After_Delivery_Rural double,
RR_Less_Than_24_Hrs_Stay_In_Institution_After_Delivery_Urban double,
RR_Mothers_Who_Received_Within_48_Hrs_Of_Delivery_Total double,
RR_Mothers_Who_Received_Within_48_Hrs_Of_Delivery_Rural double,
RR_Mothers_Who_Received_Within_48_Hrs_Of_Delivery_Urban double,
RR_Mothers_Who_Received_Within_1_Week_Of_Delivery_Total double,
RR_Mothers_Who_Received_Within_1_Week_Of_Delivery_Rural double,
RR_Mothers_Who_Received_Within_1_Week_Of_Delivery_Urban double,
RR_Mothers_Who_Did_Not_Receive_Any_Post_Natal_Check_Up_Total double,
RR_Mothers_Who_Did_Not_Receive_Any_Post_Natal_Check_Up_Rural double,
RR_Mothers_Who_Did_Not_Receive_Any_Post_Natal_Check_Up_Urban double,
RR_New_Borns_Who_Were_Checked_Up_Within_24_Hrs_Of_Birth_Total double,
RR_New_Borns_Who_Were_Checked_Up_Within_24_Hrs_Of_Birth_Rural double,
RR_New_Borns_Who_Were_Checked_Up_Within_24_Hrs_Of_Birth_Urban double,
SS_Availed_Financial_Assistance_For_Delivery_Under_Jsy_Total double,
SS_Availed_Financial_Assistance_For_Delivery_Under_Jsy_Rural double,
SS_Availed_Financial_Assistance_For_Delivery_Under_Jsy_Urban double,
SS_Availed_Financial_Assis_For_Inst_Delivery_Under_Jsy_Total double,
SS_Availed_Financial_Assis_For_Inst_Delivery_Under_Jsy_Rural double,
SS_Availed_Financial_Assis_For_Inst_Delivery_Under_Jsy_Urban double,
SS_Availed_Financial_Assis_For_Govt_Delivery_Under_Jsy_Total double,
SS_Availed_Financial_Assis_For_Govt_Delivery_Under_Jsy_Rural double,
SS_Availed_Financial_Assis_For_Govt_Delivery_Under_Jsy_Urban double,
TT_Children_Aged_12_23_Months_Having_Immunization_Card_Total double,
TT_Children_Aged_12_23_Months_Having_Immunization_Card_Rural double,
TT_Children_Aged_12_23_Months_Having_Immunization_Card_Urban double,
TT_Children_Aged_12_23_Months_Who_Have_Received_Bcg_Total double,
TT_Children_Aged_12_23_Months_Who_Have_Received_Bcg_Rural double,
TT_Children_Aged_12_23_Months_Who_Have_Received_Bcg_Urban double,
TT_Children_12_23_Months_Received_3_Doses_Of_Polio_Vaccine_Total double,
TT_Children_12_23_Months_Received_3_Doses_Of_Polio_Vaccine_Rural double,
TT_Children_12_23_Months_Received_3_Doses_Of_Polio_Vaccine_Urban double,
TT_Children_12_23_Months_Received_3_Doses_Of_Dpt_Vaccine_Total double,
TT_Children_12_23_Months_Received_3_Doses_Of_Dpt_Vaccine_Rural double,
TT_Children_12_23_Months_Received_3_Doses_Of_Dpt_Vaccine_Urban double,
TT_Children_Aged_12_23_Months_Received_Measles_Vaccine_Total double,
TT_Children_Aged_12_23_Months_Received_Measles_Vaccine_Rural double,
TT_Children_Aged_12_23_Months_Received_Measles_Vaccine_Urban double,
TT_Children_Aged_12_23_Months_Fully_Immunized_Total double,
TT_Children_Aged_12_23_Months_Fully_Immunized_Rural double,
TT_Children_Aged_12_23_Months_Fully_Immunized_Urban double,
TT_Children_Who_Have_Received_Polio_Dose_At_Birth_Total double,
TT_Children_Who_Have_Received_Polio_Dose_At_Birth_Rural double,
TT_Children_Who_Have_Received_Polio_Dose_At_Birth_Urban double,
TT_Children_Who_Did_Not_Receive_Any_Vaccination_Total double,
TT_Children_Who_Did_Not_Receive_Any_Vaccination_Rural double,
TT_Children_Who_Did_Not_Receive_Any_Vaccination_Urban double,
```

```
TT_Children_6_35_Mon_At_Least_1_Vit_A_Dose_Last_6_Months_Total double,
TT_Children_6_35_Mon_At_Least_1_Vit_A_Dose_Last_6_Months_Rural double,
TT_Children_6_35_Mon_At_Least_1_Vit_A_Dose_Last_6_Months_Urban double,
TT_Children_6_35_Mon_Ifa_Tablets_Syrup_Last_3_Months_Total double,
TT_Children_6_35_Mon_Ifa_Tablets_Syrup_Last_3_Months_Rural double,
TT_Children_6_35_Mon_Ifa_Tablets_Syrup_Last_3_Months_Urban double,
TT_Children_Whose_Birth_Weight_Was_Taken_Total double,
TT_Children_Whose_Birth_Weight_Was_Taken_Rural double,
TT_Children_Whose_Birth_Weight_Was_Taken_Urban double,
TT_Children_With_Birth_Weight_Less_Than_2_5_Kg_Total double,
TT_Children_With_Birth_Weight_Less_Than_2_5_Kg_Rural double,
TT_Children_With_Birth_Weight_Less_Than_2_5_Kg_Urban double,
UU_Children_Suffering_From_Diarrhoea_Total double,
UU_Children_Suffering_From_Diarrhoea_Rural double,
UU_Children_Suffering_From_Diarrhoea_Urban double,
UU_Children_Diarrhoea_Who_Received_Haf_Ors_Ort_Total double,
UU_Children_Diarrhoea_Who_Received_Haf_Ors_Ort_Rural double,
UU_Children_Diarrhoea_Who_Received_Haf_Ors_Ort_Urban double,
UU_Children_Suffering_From_Acute_Respiratory_Infection_Total double,
UU_Children_Suffering_From_Acute_Respiratory_Infection_Rural double,
UU_Children_Suffering_From_Acute_Respiratory_Infection_Urban double,
UU_Children_Acute_Respiratory_Infection_Sought_Treatment_Total double,
UU_Children_Acute_Respiratory_Infection_Sought_Treatment_Rural double,
UU_Children_Acute_Respiratory_Infection_Sought_Treatment_Urban double,
UU_Children_Suffering_From_Fever_Total double,
UU_Children_Suffering_From_Fever_Rural double,
UU_Children_Suffering_From_Fever_Urban double,
UU_Children_Suffering_From_Fever_Who_Sought_Treatment_Total double,
UU_Children_Suffering_From_Fever_Who_Sought_Treatment_Rural double,
UU_Children_Suffering_From_Fever_Who_Sought_Treatment_Urban double,
VV_Children_Breastfed_Within_One_Hour_Of_Birth_Total double,
VV_Children_Breastfed_Within_One_Hour_Of_Birth_Rural double,
VV_Children_Breastfed_Within_One_Hour_Of_Birth_Urban double,
VV_Children_6_35_Mon_Excl_Breastfed_For_At_Least_6_Mon_Total double,
VV_Children_6_35_Mon_Excl_Breastfed_For_At_Least_6_Mon_Rural double,
VV_Children_6_35_Mon_Excl_Breastfed_For_At_Least_6_Mon_Urban double,
VV_Other_Than_Breast_Milk_During_First_6_Months_Water_Total double,
VV_Other_Than_Breast_Milk_During_First_6_Months_Water_Rural double,
VV_Other_Than_Breast_Milk_During_First_6_Months_Water_Urban double,
VV_1st_6_Months_Animal_Formula_Milk_Total double,
VV_1st_6_Months_Animal_Formula_Milk_Rural double,
VV_1st_6_Months_Animal_Formula_Milk_Urban double,
VV_1st_6_Months_Semi_Solid_Mashed_Food_Total double,
VV_1st_6_Months_Semi_Solid_Mashed_Food_Rural double,
VV_1st_6_Months_Semi_Solid_Mashed_Food_Urban double,
VV_1st_6_Months_Solid_Adult_Food_Total double,
VV_1st_6_Months_Solid_Adult_Food_Rural double,
VV_1st_6_Months_Solid_Adult_Food_Urban double,
VV_1st_6_Months_Vegetables_Fruits_Total double,
VV_1st_6_Months_Vegetables_Fruits_Rural double,
VV_1st_6_Months_Vegetables_Fruits_Urban double,
VV_Avg_Month_Other_Than_Breast_Milk_Water_Total double,
VV_Avg_Month_Other_Than_Breast_Milk_Water_Rural double,
VV_Avg_Month_Other_Than_Breast_Milk_Water_Urban double,
VV_Avg_Month_Other_Than_Breast_Milk_Animal_Formula_Milk_Total double,
VV_Avg_Month_Other_Than_Breast_Milk_Animal_Formula_Milk_Rural double,
VV_Avg_Month_Other_Than_Breast_Milk_Animal_Formula_Milk_Urban double,
```

```
VV_Avg_Month_Other_Than_Breast_Milk_Semi_Solid_Mashed_Food_Total double,
VV_Avg_Month_Other_Than_Breast_Milk_Semi_Solid_Mashed_Food_Rural double,
VV_Avg_Month_Other_Than_Breast_Milk_Semi_Solid_Mashed_Food_Urban double,
VV_Avg_Month_Other_Than_Breast_Milk_Solid_Adult_Food_Total double,
VV_Avg_Month_Other_Than_Breast_Milk_Solid_Adult_Food_Rural double,
VV_Avg_Month_Other_Than_Breast_Milk_Solid_Adult_Food_Urban double,
VV_Avg_Month_Other_Than_Breast_Milk_Vegetables_Fruits_Total double,
VV_Avg_Month_Other_Than_Breast_Milk_Vegetables_Fruits_Rural double,
VV_Avg_Month_Other_Than_Breast_Milk_Vegetables_Fruits_Urban double,
WW_Birth_Registered_Total double,
WW_Birth_Registered_Rural double,
WW_Birth_Registered_Urban double,
WW_Children_Registered_And_Received_Birth_Certificate_Total double,
WW_Children_Registered_And_Received_Birth_Certificate_Rural double,
WW_Children_Registered_And_Received_Birth_Certificate_Urban double,
XX_Women_Who_Are_Aware_Of_Hiv_Aids_Total double,
XX_Women_Who_Are_Aware_Of_Hiv_Aids_Rural double,
XX_Women_Who_Are_Aware_Of_Hiv_Aids_Urban double,
XX_Women_Who_Are_Aware_Of_Rti_Sti_Total double,
XX_Women_Who_Are_Aware_Of_Rti_Sti_Rural double,
XX_Women_Who_Are_Aware_Of_Rti_Sti_Urban double,
XX_Women_Who_Are_Aware_Of_Haf_Ors_Ort_Zinc_Total double,
XX_Women_Who_Are_Aware_Of_Haf_Ors_Ort_Zinc_Rural double,
XX_Women_Who_Are_Aware_Of_Haf_Ors_Ort_Zinc_Urban double,
XX_Women_Who_Are_Aware_Of_Danger_Signs_Of_Ari_Pneumonia_Total double,
XX_Women_Who_Are_Aware_Of_Danger_Signs_Of_Ari_Pneumonia_Rural double,
XX_Women_Who_Are_Aware_Of_Danger_Signs_Of_Ari_Pneumonia_Urban double,
YY_Crude_Death_Rate_Cdr_Total_Person double,
YY_Crude_Death_Rate_Cdr_Total_Male double,
YY_Crude_Death_Rate_Cdr_Total_Female double,
YY_Crude_Death_Rate_Cdr_Rural_Person double,
YY_Crude_Death_Rate_Cdr_Rural_Male double,
YY_Crude_Death_Rate_Cdr_Rural_Female double,
YY_Crude_Death_Rate_Cdr_Urban_Person double,
YY_Crude_Death_Rate_Cdr_Urban_Male double,
YY_Crude_Death_Rate_Cdr_Urban_Female double,
YY_Infant_Mortality_Rate_Imr_Total_Person double,
YY_Infant_Mortality_Rate_Imr_Total_Male double,
YY_Infant_Mortality_Rate_Imr_Total_Female double,
YY_Infant_Mortality_Rate_Imr_Rural_Person double,
YY_Infant_Mortality_Rate_Imr_Rural_Male double,
YY_Infant_Mortality_Rate_Imr_Rural_Female double,
YY_Infant_Mortality_Rate_Imr_Urban_Person double,
YY_Infant_Mortality_Rate_Imr_Urban_Male double,
YY_Infant_Mortality_Rate_Imr_Urban_Female double,
YY_Neo_Natal_Mortality_Rate_Total double,
YY_Neo_Natal_Mortality_Rate_Rural double,
YY_Neo_Natal_Mortality_Rate_Urban double,
YY_Post_Neo_Natal_Mortality_Rate_Total double,
YY_Post_Neo_Natal_Mortality_Rate_Rural double,
YY_Post_Neo_Natal_Mortality_Rate_Urban double,
YY_Under_Five_Mortality_Rate_U5MR_Total_Person double,
YY_Under_Five_Mortality_Rate_U5MR_Total_Male double,
YY_Under_Five_Mortality_Rate_U5MR_Total_Female double,
YY_Under_Five_Mortality_Rate_U5MR_Rural_Person double,
YY_Under_Five_Mortality_Rate_U5MR_Rural_Male double,
YY_Under_Five_Mortality_Rate_U5MR_Rural_Female double,
```

```
YY_Under_Five_Mortality_Rate_U5MR_Urban_Person double,
YY_Under_Five_Mortality_Rate_U5MR_Urban_Male double,
YY_Under_Five_Mortality_Rate_U5MR_Urban_Female double,
ZZ_Crude_Birth_Rate_Total_Lower_Limit double,
ZZ_Crude_Birth_Rate_Total_Upper_Limit double,
ZZ_Crude_Birth_Rate_Rural_Lower_Limit double,
ZZ_Crude_Birth_Rate_Rural_Upper_Limit double,
ZZ_Crude_Birth_Rate_Urban_Lower_Limit double,
ZZ_Crude_Birth_Rate_Urban_Upper_Limit double,
ZZ_Crude_Death_Rate_Total_Lower_Limit double,
ZZ_Crude_Death_Rate_Total_Upper_Limit double,
ZZ_Crude_Death_Rate_Rural_Lower_Limit double,
ZZ_Crude_Death_Rate_Rural_Upper_Limit double,
ZZ_Crude_Death_Rate_Urban_Lower_Limit double,
ZZ_Crude_Death_Rate_Urban_Upper_Limit double,
ZZ_Infant_Mortality_Rate_Total_Lower_Limit double,
ZZ_Infant_Mortality_Rate_Total_Upper_Limit double,
ZZ_Infant_Mortality_Rate_Rural_Lower_Limit double,
ZZ_Infant_Mortality_Rate_Rural_Upper_Limit double,
ZZ_Infant_Mortality_Rate_Urban_Lower_Limit double,
ZZ_Infant_Mortality_Rate_Urban_Upper_Limit double,
ZZ_Under_Five_Mortality_Rate_U5MR_Total_Lower_Limit double,
ZZ_Under_Five_Mortality_Rate_U5MR_Total_Upper_Limit double,
ZZ_Under_Five_Mortality_Rate_U5MR_Rural_Lower_Limit double,
ZZ_Under_Five_Mortality_Rate_U5MR_Rural_Upper_Limit double,
ZZ_Under_Five_Mortality_Rate_U5MR_Urban_Lower_Limit double,
ZZ_Under_Five_Mortality_Rate_U5MR_Urban_Upper_Limit double,
ZZ_Sex_Ratio_At_Birth_Total_Lower_Limit double,
ZZ_Sex_Ratio_At_Birth_Total_Upper_Limit double,
ZZ_Sex_Ratio_At_Birth_Rural_Lower_Limit double,
ZZ_Sex_Ratio_At_Birth_Rural_Upper_Limit double,
ZZ_Sex_Ratio_At_Birth_Urban_Lower_Limit double,
ZZ_Sex_Ratio_At_Birth_Urban_Upper_Limit double
) row format delimited fields terminated by ',';
```

4. Give permissions to /user/ec2-user directory:

```
[ec2-user@ip-10-0-0-243 ~]$ hdfs dfs -chmod -R 777 /user/ec2-user
```

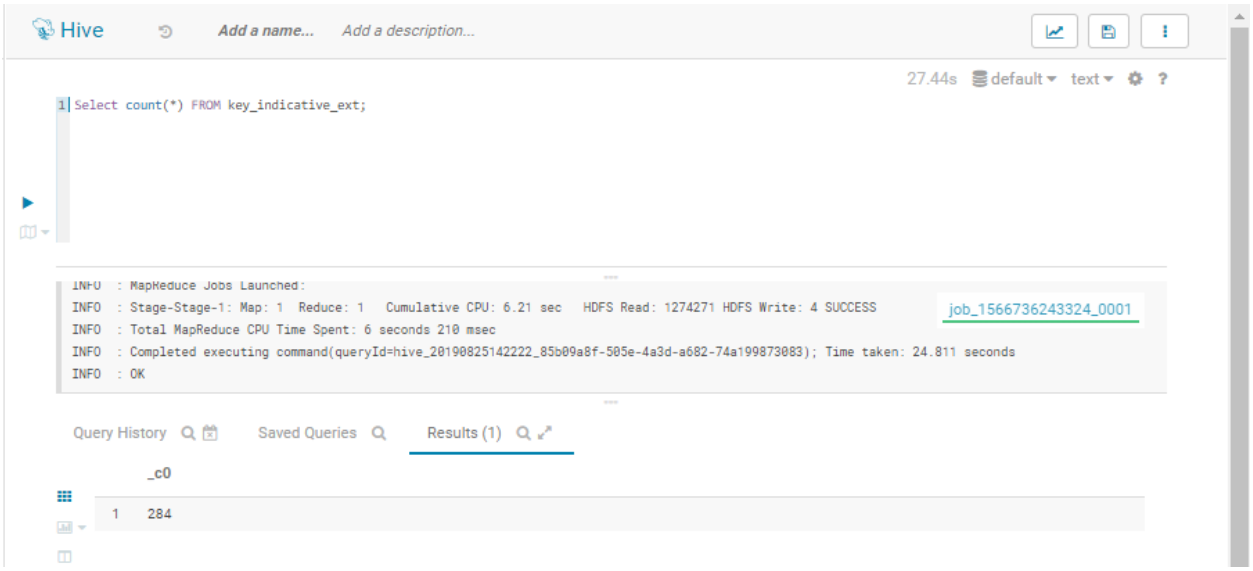
5. Command to load the ingested data into the external table

```
hive> load data inpath '/user/ec2-user/Key_indicator_districtwise' into table
key_indicative_ext;
```

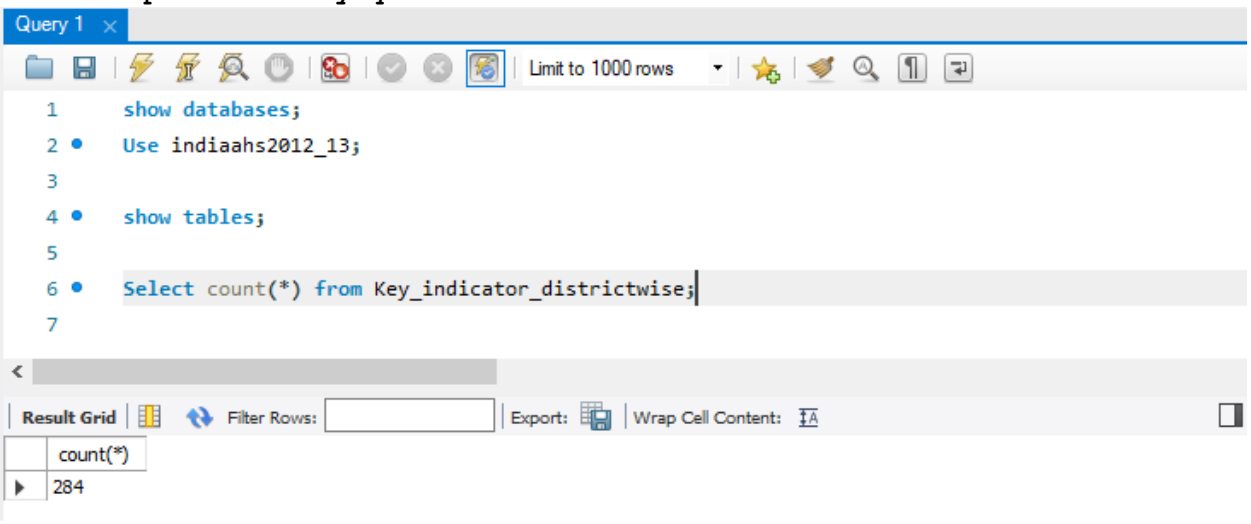
6. Queries to verify that the ingestion is correctly accomplished
Query to count the total number of rows fetched by the query Hue. Query to count the total number of rows along with the screenshots of the data fetched by the query on MySQL Workbench and Hue.

```
Select count(*)
From key_indicative_ext;
```

Screen Capture from HUE:

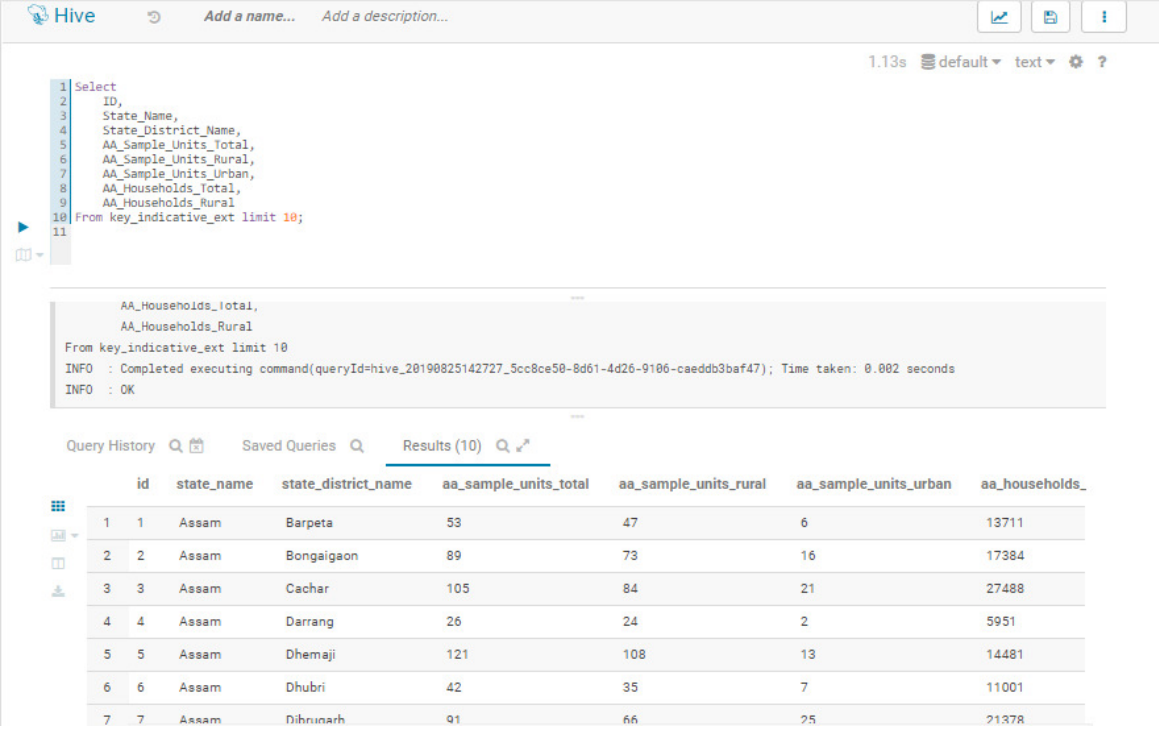


Screen Capture from MySql Workbench:



7. Query to select the top 10 rows and first 8 columns of the data fetched by the query on Hue.

```
Select
      ID,
      State_Name,
      State_District_Name,
      AA_Sample_Units_Total,
      AA_Sample_Units_Rural,
      AA_Sample_Units_Urban,
      AA_Households_Total,
      AA_Households_Rural
From key_indicative_ext limit 10;
```



Subset schema creation in Hive to support the analyses:

8. Create a subset schema in Hive to store the data for the analyses to be done. The schema should be optimized to support ONLY the analyses to be done. You will be graded on your choice of the chosen columns, storage format (Parquet, RC, ORC, and CSV), etc. Benchmark the performance of the storage formats before finalizing the one to be used.

Columns used in subset schema creation.

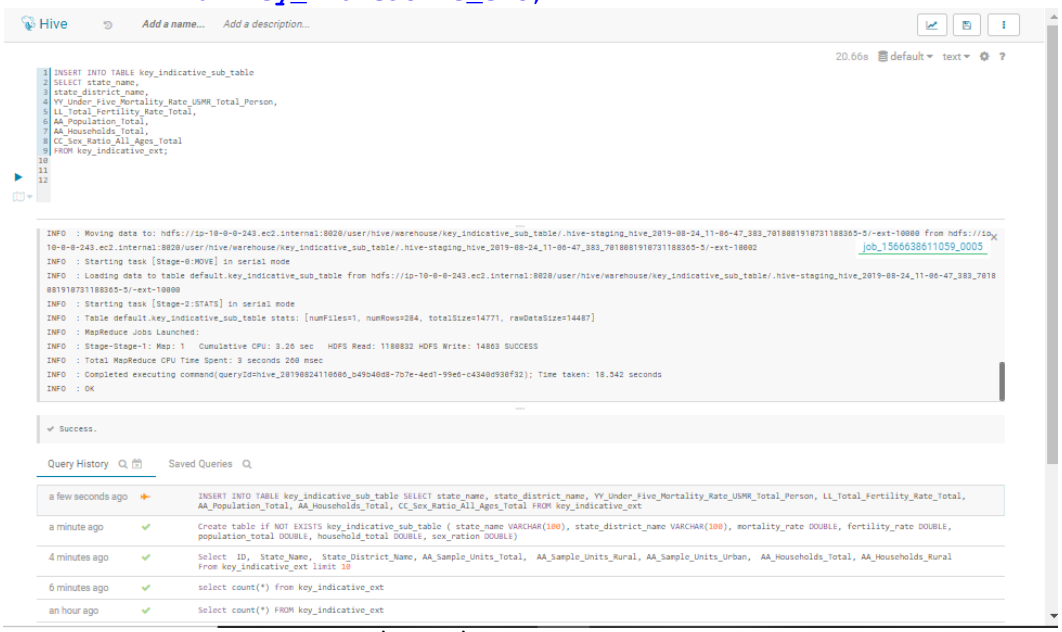
1. state_name VARCHAR(100),
2. state_district_name VARCHAR(100),
3. mortality_rate DOUBLE,
4. fertility_rate DOUBLE,
5. population_total DOUBLE,
6. household_total DOUBLE,
7. sex_ration DOUBLE

Storage Format used ORC

a. Create and insert command for the default format

```
Create table if NOT EXISTS key_indicative_sub_table (
state_name VARCHAR(100),
state_district_name VARCHAR(100),
mortality_rate DOUBLE,
fertility_rate DOUBLE,
population_total DOUBLE,
household_total DOUBLE,
sex_ration DOUBLE);

INSERT INTO TABLE key_indicative_sub_table
SELECT state_name,
```

```
state_district_name,
YY_Under_Five_Mortality_Rate_U5MR_Total_Person,
LL_Total_Fertility_Rate_Total,
AA_Population_Total,
AA_Households_Total,
CC_Sex_Ratio_All_Ages_Total
FROM key_indicative_ext;
```

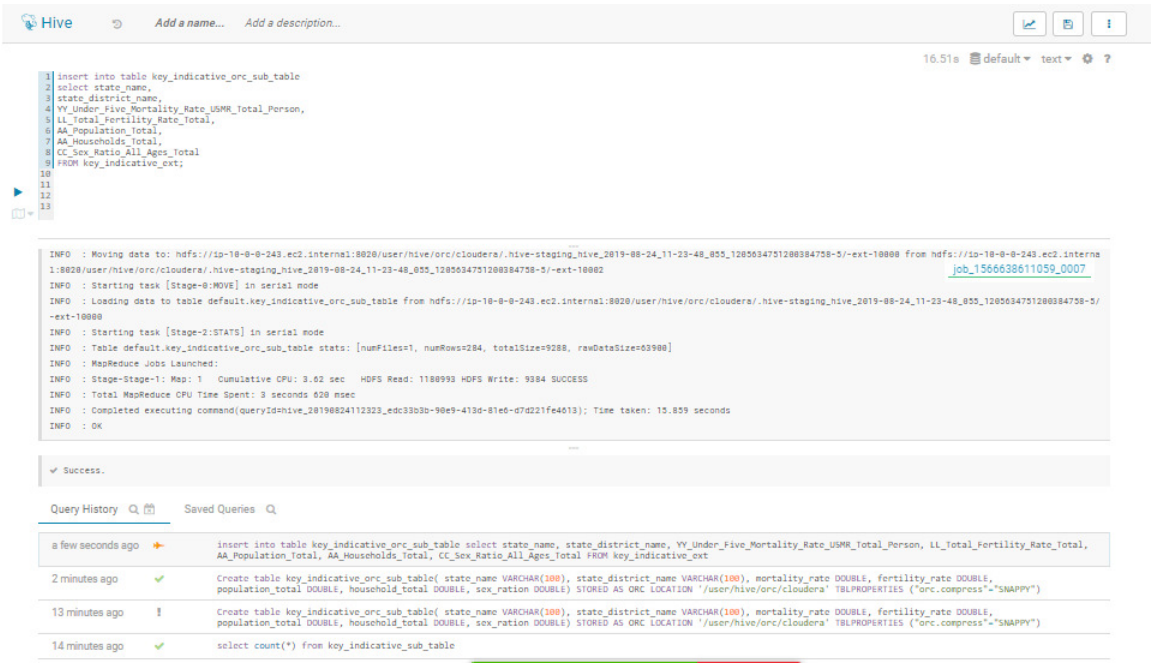


Give write permission to /user/hive

```
[hdfs@ip-10-0-0-243 ec2-user]$ sudo su hdfs
[hdfs@ip-10-0-0-243 ec2-user]$ hdfs dfs -chmod -R 777 /user/hive
[hdfs@ip-10-0-0-243 ec2-user]$ ctrl + D
```

b. Create and insert command for ORC format:

```
Create table key_indicative_orc_sub_table(
state_name VARCHAR(100),
state_district_name VARCHAR(100),
mortality_rate DOUBLE,
fertility_rate DOUBLE,
population_total DOUBLE,
household_total DOUBLE,
sex_ratio DOUBLE)
STORED AS ORC
LOCATION '/user/hive/orc/cloudera'
TBLPROPERTIES ("orc.compress"="SNAPPY");

hive> insert into table key_indicative_orc_sub_table
select state_name,
state_district_name,
YY_Under_Five_Mortality_Rate_U5MR_Total_Person,
LL_Total_Fertility_Rate_Total,
AA_Population_Total,
AA_Households_Total,
CC_Sex_Ratio_All_Ages_Total
FROM key_indicative_ext;
```



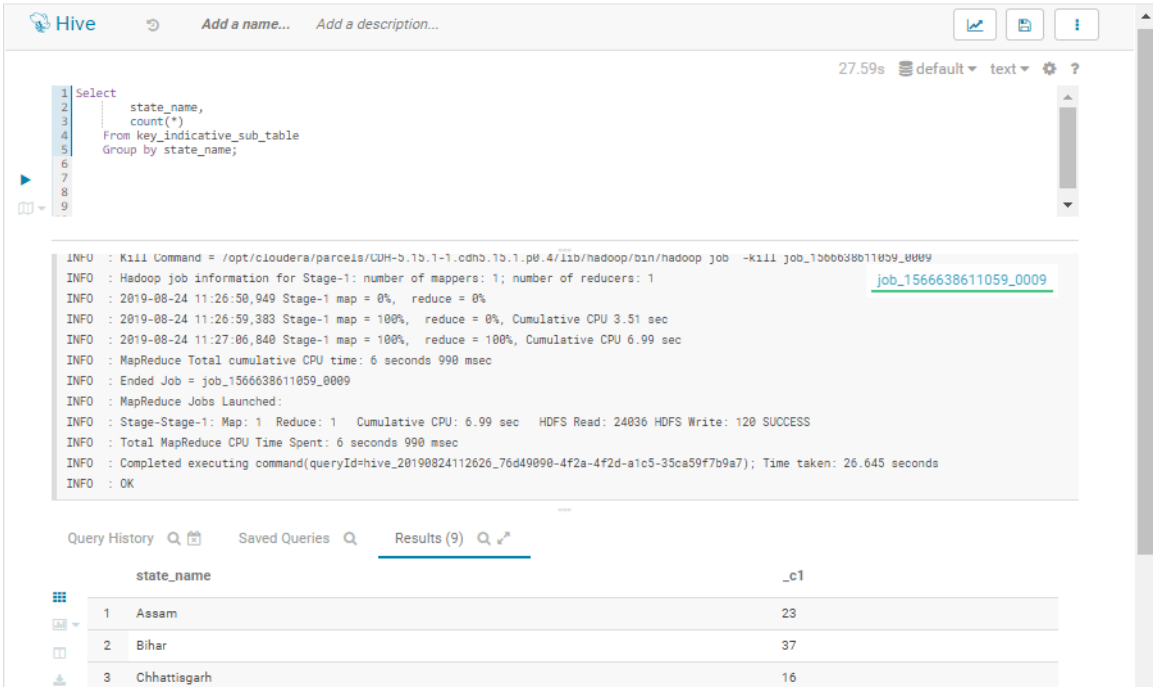
c. Create and insert command for HIVE-HBASE integrated table

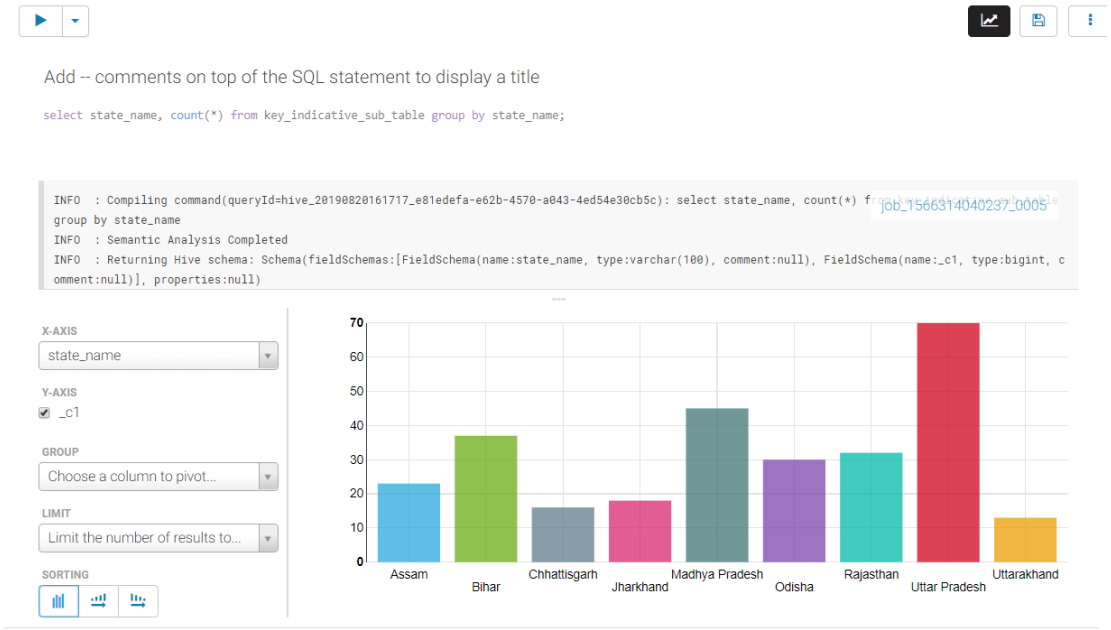
```
Create table if NOT EXISTS key_indicative_hbase_sub_tbl (
id int,
state_name VARCHAR(100),
state_district_name VARCHAR(100),
mortality_rate double,
fertility_rate double,
population_total double,
household_total double,
sex_ratio double)
STORED BY 'org.apache.hadoop.hive.hbase.HBaseStorageHandler'
with serdeproperties
("hbase.columns.mapping"=":key,key_indicative:state_name,key_indicative
:state_district_name,key_indicative:mortality_rate,
key_indicative:fertility_rate,key_indicative:population_total,key_indic
ative:household_total,key_indicative:sex_ratio")
tblproperties("hbase.table.name"="key_indicative_hbase_sub_table");

INSERT INTO TABLE key_indicative_hbase_sub_tbl
SELECT id,state_name,
state_district_name,
YY_Under_Five_Mortality_Rate_U5MR_Total_Person,
LL_Total_Fertility_Rate_Total,
AA_Population_Total,
AA_Households_Total,
CC_Sex_Ratio_All_Ages_Total
FROM key_indicative_ext;
```

a. For Default Format:

```
hive> Select count(*)
      From key_indicative_sub_table;
```

```
hive> Select state_name, count(*)
      From key_indicative_sub_table
      Group by state_name;
```

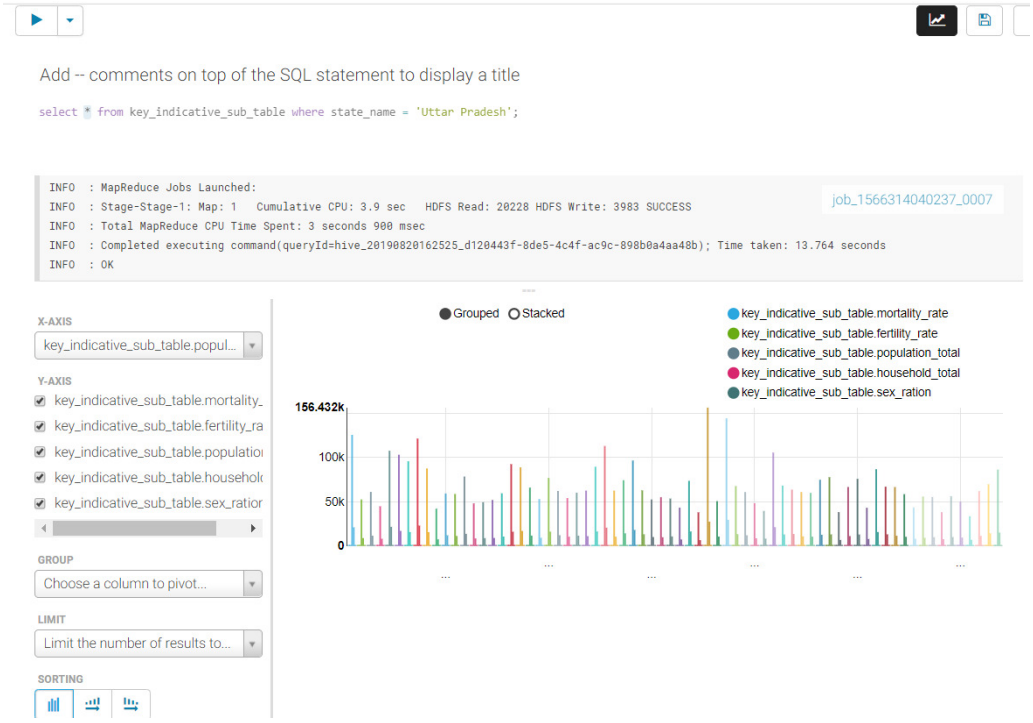





```
hive> Select *
      From key_indicative_sub_table
      Where state_name = 'Uttar Pradesh';
```

key_indicative_sub_table.state_name	key_indicative_sub_table.state_district_name	key_indicative_sub_table.mortality_rate	key_indicative_sub_table.fertility_rate	key_indicative_sub_table.population_total	key_indicative_sub_table.household_total	key_indicative_sub_table.sex_ration
Uttar Pradesh	Agra	69	3.02	125614	20911	873.47
Uttar Pradesh	Aligarh	90	3.53	52583	8844	910.76
Uttar Pradesh	Allahabad	104	3.16	61029	11563	1016.34
Uttar Pradesh	Ambedkar Nagar	78	3.03	44698	7923	1114.48
Uttar Pradesh	Auraiya	84	3.47	107619	21590	875.68
Uttar Pradesh	Azamgarh	89	3.15	103165	16962	1104.91
Uttar Pradesh	Baghpat	70	3.03	95759	15648	859.29
Uttar Pradesh	Bahraich	105	4.87	121402	22906	896.37
Uttar Pradesh	Ballia	82	2.97	87623	15606	992.82
Uttar Pradesh	Balrampur	117	4.94	42016	7315	1040.09
Uttar Pradesh	Banda	96	4.13	59266	11915	925.05
Uttar Pradesh	Barabanki	97	3.85	58722	11232	895.18
Uttar Pradesh	Bareilly	104	3.64	78492	13678	887.13
Uttar Pradesh	Basti	106	3.47	48055	8393	1067.67
Uttar Pradesh	Bijnor	79	3.23	49416	8748	963.34
Uttar Pradesh	Budaun	108	4.48	51993	8999	915.88
Uttar Pradesh	Bulandshahar	89	3.44	59473	10578	912
Uttar Pradesh	Chandauli	98	3.29	92389	15936	993.76
Uttar Pradesh	Chitrakoot	119	3.6	88832	16937	910.69
Uttar Pradesh	Deoria	83	3.12	65914	11641	1171.6
Uttar Pradesh	Etah	86	4.16	52944	9054	884.45
Uttar Pradesh	Etawah	85	3.06	76793	16067	857.88
Uttar Pradesh	Faizabad	115	3.02	62219	12075	1016.34
Uttar Pradesh	Farrukhabad	98	3.68	54111	10364	869.08
Uttar Pradesh	Fatehpur	81	3.46	60209	11582	919.64
Uttar Pradesh	Firozabad	79	3.57	62573	11053	899.61
Uttar Pradesh	Gautam Buddha Nagar	70	2.64	89498	16323	836.82
Uttar Pradesh	Ghaziabad	59	2.54	112985	20612	862.85
Uttar Pradesh	Ghazipur	94	2.97	62521	10337	1064.96
Uttar Pradesh	Gonda	97	4.01	74324	14169	906.07
Uttar Pradesh	Gorakhpur	76	2.72	96497	17975	1073.8
Uttar Pradesh	Hamirpur	66	3.57	62783	13042	862.22
Uttar Pradesh	Hardoi	118	4.23	52567	10040	877.61
Uttar Pradesh	Hathras	78	3.2	55062	9779	868.83
Uttar Pradesh	Jalaun	97	3.1	53505	10675	880.57
Uttar Pradesh	Jaunpur	91	2.87	43285	7272	1037.06
Uttar Pradesh	Jhansi	59	2.3	73590	16295	875.12
Uttar Pradesh	Jyotiba Phule Nagar	92	3.51	37927	6546	930.23
Uttar Pradesh	Kannauj	102	3.28	156432	27431	893.92
Uttar Pradesh	Kanpur Dehat	94	2.84	50626	10543	873.47
Uttar Pradesh	Kanpur Nagar	50	2.11	144182	29525	875.09
Uttar Pradesh	Kaushambi	113	3.89	67572	13179	1032.4
Uttar Pradesh	Kheri	117	3.88	60900	12004	888.43
Uttar Pradesh	Kushinagar	99	3.33	48371	8608	1136.58
Uttar Pradesh	Lalitpur	114	3.4	39529	8108	889.05
Uttar Pradesh	Lucknow	58	2.23	105538	21138	898.35

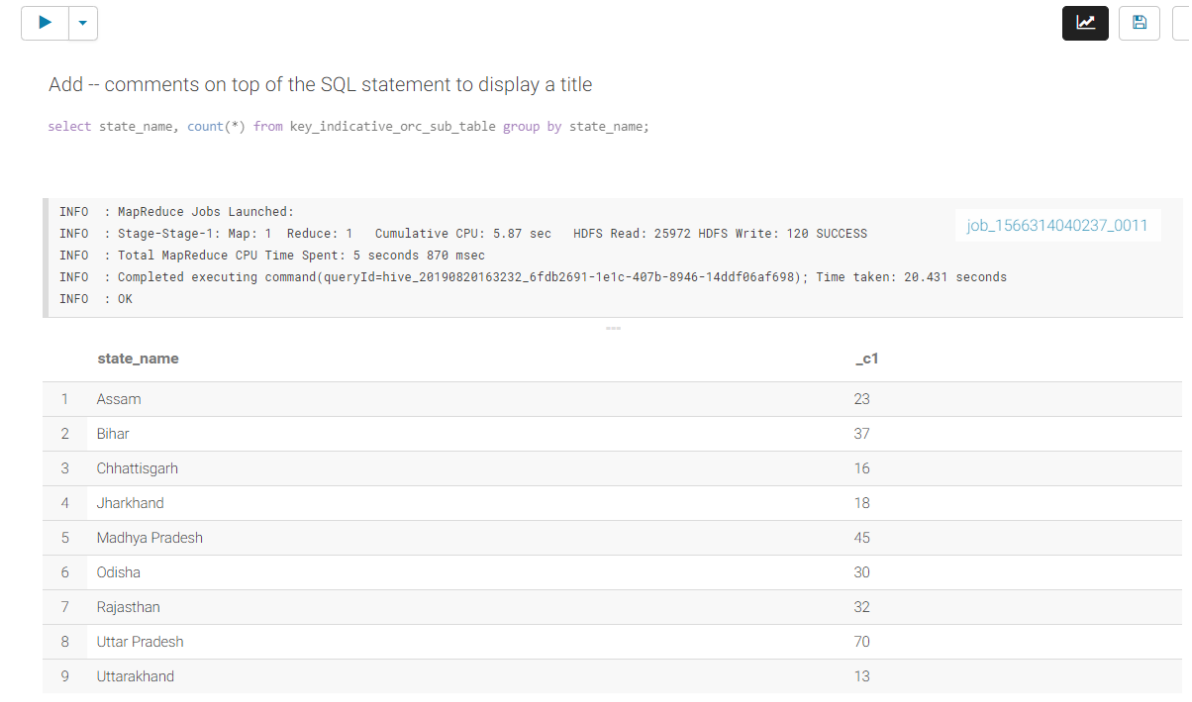
Uttar Pradesh	Maharajganj	96	3.23	68263	12950	1133.13
Uttar Pradesh	Mahoba	73	3.55	63537	13461	887.27
Uttar Pradesh	Mainpuri	78	3.37	60823	10727	885.2
Uttar Pradesh	Mathura	58	2.98	59930	10406	876.42
Uttar Pradesh	Mau	86	2.86	74750	12606	1038.26
Uttar Pradesh	Meerut	59	3.07	77688	12884	900.55
Uttar Pradesh	Mirzapur	105	2.57	38180	6709	962.7
Uttar Pradesh	Moradabad	80	3.61	66632	11054	902.28
Uttar Pradesh	Muzaffarnagar	71	3.22	75749	12812	888.14
Uttar Pradesh	Pilibhit	91	3.56	43038	7773	880.49
Uttar Pradesh	Pratapgarh	104	2.9	86770	15695	1142.93
Uttar Pradesh	Rae Bareli	80	3.29	66935	12981	946.64
Uttar Pradesh	Rampur	86	3.48	66460	11435	904.74
Uttar Pradesh	Saharanpur	99	3.31	58510	10259	919.02
Uttar Pradesh	Sant Kabir Nagar	91	3.84	43549	8028	1174.95
Uttar Pradesh	Sant Ravidas Nagar (Bhadohi)	106	2.88	55736	8974	998.61
Uttar Pradesh	Shahjahanpur	100	4.17	55307	9822	853.67
Uttar Pradesh	Shrawasti	130	5.52	38131	7483	983.63
Uttar Pradesh	Siddharthnagar	116	4.82	56238	9919	1178.11
Uttar Pradesh	Sitapur	114	4.42	50237	9323	882.49
Uttar Pradesh	Sonbhadra	99	3.78	33562	6838	952.06
Uttar Pradesh	Sultanpur	66	3.03	61923	11251	984.1
Uttar Pradesh	Unnao	83	3.08	69686	14128	887.85
Uttar Pradesh	Varanasi	90	2.32	86266	14974	921.53



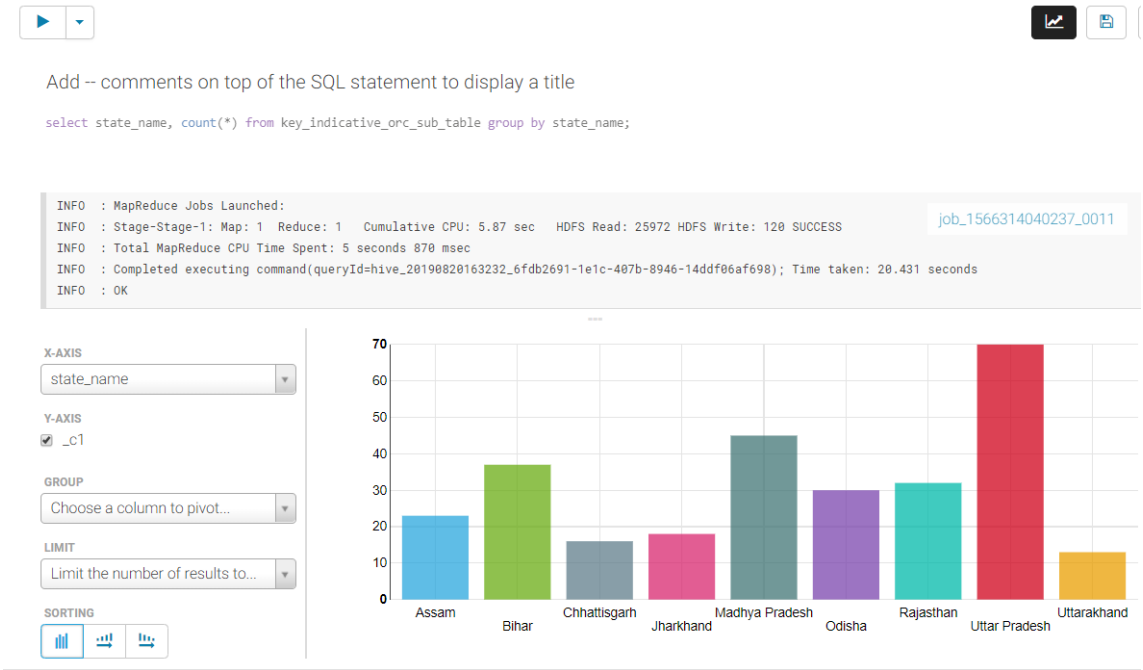
b. For ORC Format:

```
hive> Select count(*)
      From key_indicative_orc_sub_table;
```


```
hive> Select state_name, count(*)
      From key_indicative_orc_sub_table
      Group by state_name;
```



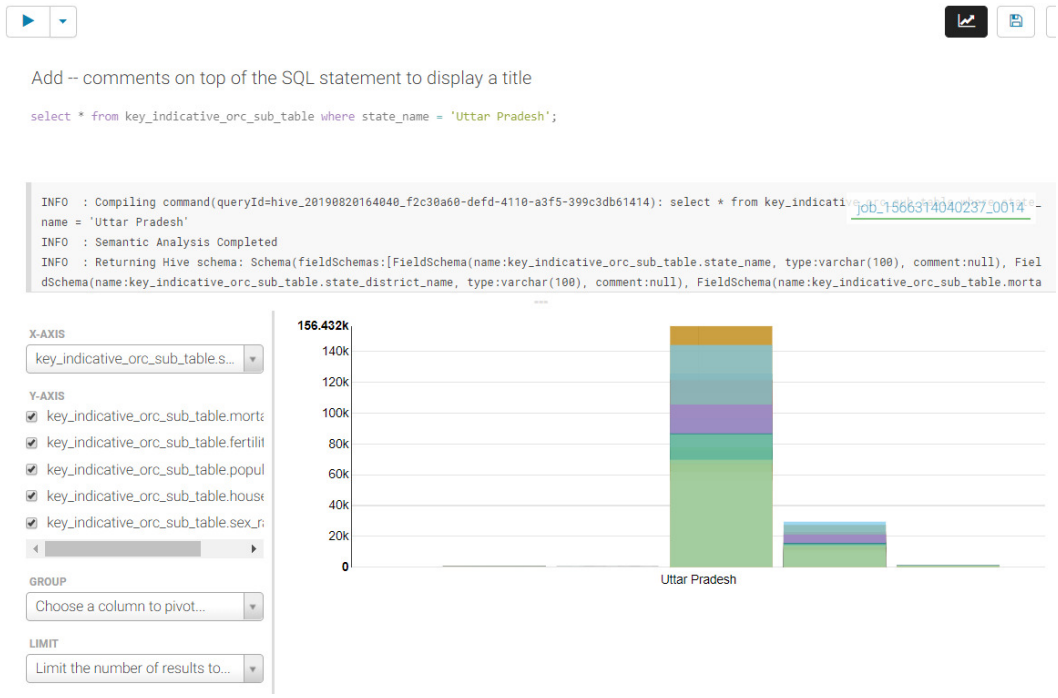
	state_name	_c1
1	Assam	23
2	Bihar	37
3	Chhattisgarh	16
4	Jharkhand	18
5	Madhya Pradesh	45
6	Odisha	30
7	Rajasthan	32
8	Uttar Pradesh	70
9	Uttarakhand	13




```
hive> Select *
From key_indicative_orc_sub_table
Where state_name = 'Uttar Pradesh';
```

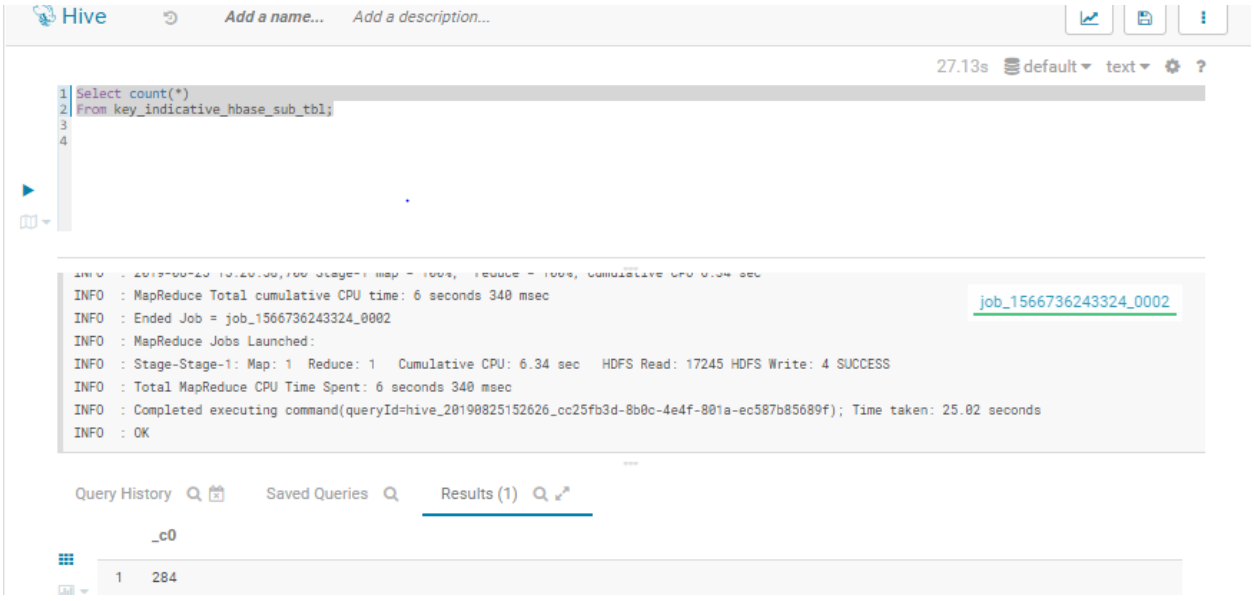
key_indicative_orc_sub_table.state_name	key_indicative_orc_sub_table.state_district_name	key_indicative_orc_sub_table.mortality_rate	key_indicative_orc_sub_table.fertility_rate	key_indicative_orc_sub_table.population_total	key_indicative_orc_sub_table.household_total	key_indicative_orc_sub_table.sex_ration
Uttar Pradesh	Agra	69	3.02	125614	20911	873.47
Uttar Pradesh	Aligarh	90	3.53	52583	8844	910.76
Uttar Pradesh	Allahabad	104	3.16	61029	11563	1016.34
Uttar Pradesh	Ambedkar Nagar	78	3.03	44698	7923	1114.48
Uttar Pradesh	Auraiya	84	3.47	107619	21590	875.68
Uttar Pradesh	Azamgarh	89	3.15	103165	16962	1104.91
Uttar Pradesh	Baghpat	70	3.03	95759	15648	859.29
Uttar Pradesh	Bahraich	105	4.87	121402	22906	896.37
Uttar Pradesh	Ballia	82	2.97	87623	15606	992.82
Uttar Pradesh	Balrampur	117	4.94	42016	7315	1040.09
Uttar Pradesh	Banda	96	4.13	59266	11915	925.05
Uttar Pradesh	Barabanki	97	3.85	58722	11232	895.18
Uttar Pradesh	Bareilly	104	3.64	78492	13678	887.13
Uttar Pradesh	Basti	106	3.47	48055	8393	1067.67
Uttar Pradesh	Bijnor	79	3.23	49416	8748	963.34
Uttar Pradesh	Budaun	108	4.48	51993	8999	915.88
Uttar Pradesh	Bulandshahar	89	3.44	59473	10578	912
Uttar Pradesh	Chandauli	98	3.29	92389	15936	993.76
Uttar Pradesh	Chitrakoot	119	3.6	88832	16937	910.69
Uttar Pradesh	Deoria	83	3.12	65914	11641	1171.6
Uttar Pradesh	Etah	86	4.16	52944	9054	884.45
Uttar Pradesh	Etawah	85	3.06	76793	16067	857.88
Uttar Pradesh	Faizabad	115	3.02	62219	12075	1016.34

Uttar Pradesh	Farrukhabad	98	3.68	54111	10364	869.08
Uttar Pradesh	Fatehpur	81	3.46	60209	11582	919.64
Uttar Pradesh	Firozabad	79	3.57	62573	11053	899.61
Uttar Pradesh	Gautam Buddha Nagar	70	2.64	89498	16323	836.82
Uttar Pradesh	Ghaziabad	59	2.54	112985	20612	862.85
Uttar Pradesh	Ghazipur	94	2.97	62521	10337	1064.96
Uttar Pradesh	Gonda	97	4.01	74324	14169	906.07
Uttar Pradesh	Gorakhpur	76	2.72	96497	17975	1073.8
Uttar Pradesh	Hamirpur	66	3.57	62783	13042	862.22
Uttar Pradesh	Hardoi	118	4.23	52567	10040	877.61
Uttar Pradesh	Hathras	78	3.2	55062	9779	868.83
Uttar Pradesh	Jalaun	97	3.1	53505	10675	880.57
Uttar Pradesh	Jaunpur	91	2.87	43285	7272	1037.06
Uttar Pradesh	Jhansi	59	2.3	73590	16295	875.12
Uttar Pradesh	Jyotiba Phule Nagar	92	3.51	37927	6546	930.23
Uttar Pradesh	Kannauj	102	3.28	156432	27431	893.92
Uttar Pradesh	Kanpur Dehat	94	2.84	50626	10543	873.47
Uttar Pradesh	Kanpur Nagar	50	2.11	144182	29525	875.09
Uttar Pradesh	Kaushambi	113	3.89	67572	13179	1032.4
Uttar Pradesh	Kheri	117	3.88	60900	12004	888.43
Uttar Pradesh	Kushinagar	99	3.33	48371	8608	1136.58
Uttar Pradesh	Lalitpur	114	3.4	39529	8108	889.05
Uttar Pradesh	Lucknow	58	2.23	105538	21138	898.35
Uttar Pradesh	Maharajganj	96	3.23	68263	12950	1133.13
Uttar Pradesh	Mahoba	73	3.55	63537	13461	887.27
Uttar Pradesh	Mainpuri	78	3.37	60823	10727	885.2
Uttar Pradesh	Mathura	58	2.98	59930	10406	876.42
Uttar Pradesh	Mau	86	2.86	74750	12606	1038.26
Uttar Pradesh	Meerut	59	3.07	77688	12884	900.55
Uttar Pradesh	Mirzapur	105	2.57	38180	6709	962.7
Uttar Pradesh	Moradabad	80	3.61	66632	11054	902.28
Uttar Pradesh	Muzaffarnagar	71	3.22	75749	12812	888.14
Uttar Pradesh	Pilibhit	91	3.56	43038	7773	880.49
Uttar Pradesh	Pratapgarh	104	2.9	86770	15695	1142.93
Uttar Pradesh	Rae Bareli	80	3.29	66935	12981	946.64
Uttar Pradesh	Rampur	86	3.48	66460	11435	904.74
Uttar Pradesh	Saharanpur	99	3.31	58510	10259	919.02
Uttar Pradesh	Sant Kabir Nagar	91	3.84	43549	8028	1174.95
Uttar Pradesh	Sant Ravidas Nagar (Bhadohi)	106	2.88	55736	8974	998.61
Uttar Pradesh	Shahjahanpur	100	4.17	55307	9822	853.67
Uttar Pradesh	Shrawasti	130	5.52	38131	7483	983.63
Uttar Pradesh	Siddharthnagar	116	4.82	56238	9919	1178.11
Uttar Pradesh	Sitapur	114	4.42	50237	9323	882.49
Uttar Pradesh	Sonbhadra	99	3.78	33562	6838	952.06
Uttar Pradesh	Sultanpur	66	3.03	61923	11251	984.1
Uttar Pradesh	Unnao	83	3.08	69686	14128	887.85
Uttar Pradesh	Varanasi	90	2.32	86266	14974	921.53

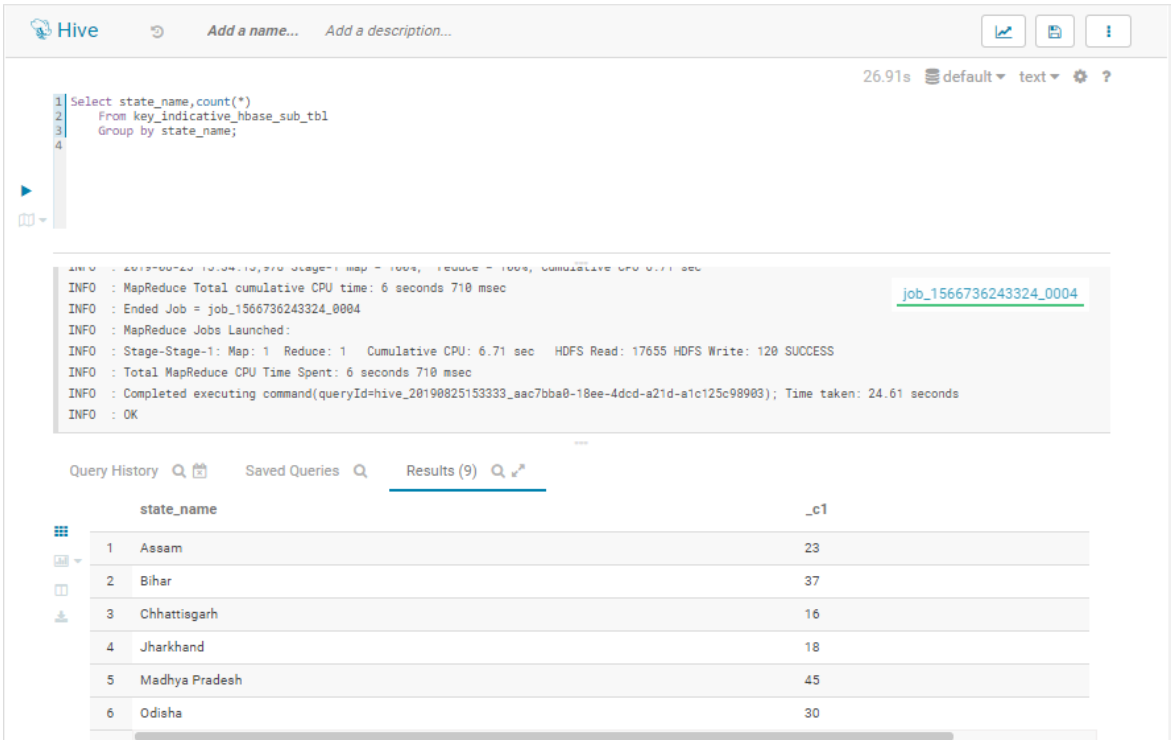


c. For HIVE-HBASE Integrated Format:

```
hive> Select count(*)
      From key_indicative_hbase_sub_tbl;
```




```
hive> Select state_name, count(*)
      From key_indicative_hbase_sub_tbl
      Group by state_name;
```

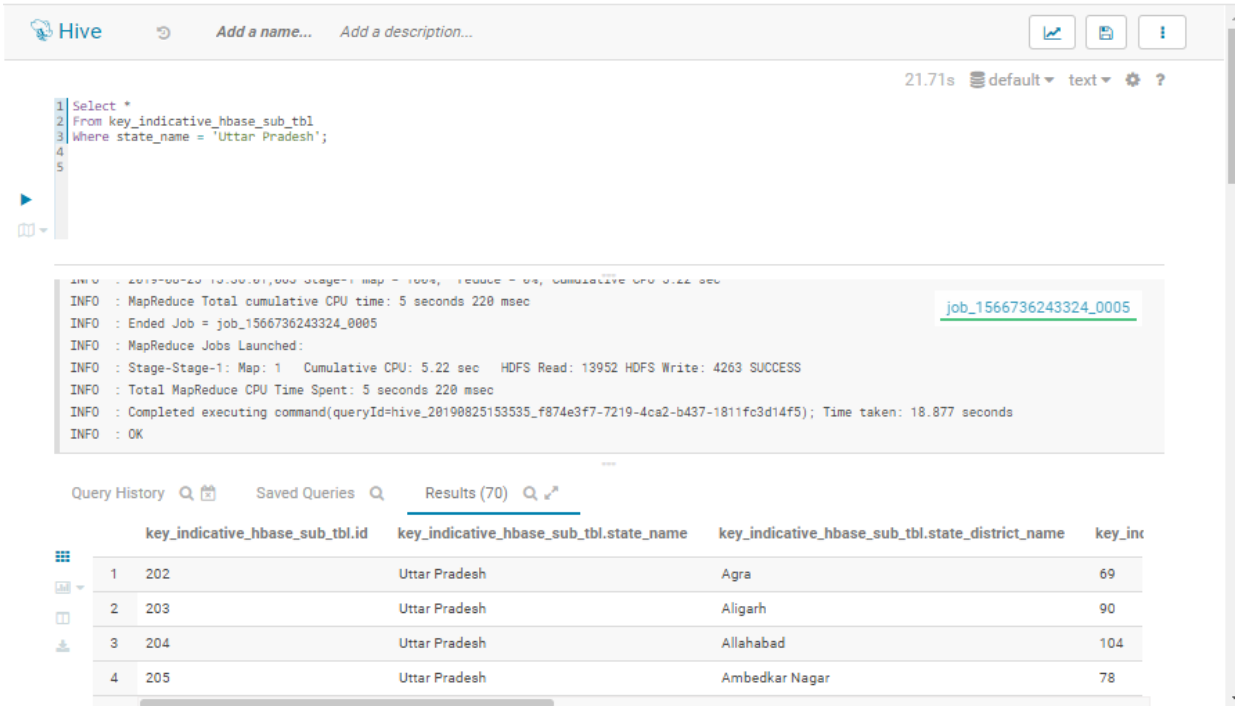



```
hive> Select *
From key_indicative_hbase_sub_tbl
Where state_name = 'Uttar Pradesh';
```

key_indicative_orc_sub_table.state_name	key_indicative_orc_sub_table.state_district_name	key_indicative_orc_sub_table.mortality_rate	key_indicative_orc_sub_table.fertility_rate	key_indicative_orc_sub_table.population_total	key_indicative_orc_sub_table.household_total	key_indicative_orc_sub_table.sex_ration
Uttar Pradesh	Agra	69	3.02	125614	20911	873.47
Uttar Pradesh	Aligarh	90	3.53	52583	8844	910.76
Uttar Pradesh	Allahabad	104	3.16	61029	11563	1016.34
Uttar Pradesh	Ambedkar Nagar	78	3.03	44698	7923	1114.48
Uttar Pradesh	Auraiya	84	3.47	107619	21590	875.68
Uttar Pradesh	Azamgarh	89	3.15	103165	16962	1104.91
Uttar Pradesh	Baghpat	70	3.03	95759	15648	859.29
Uttar Pradesh	Bahraich	105	4.87	121402	22906	896.37
Uttar Pradesh	Ballia	82	2.97	87623	15606	992.82
Uttar Pradesh	Balrampur	117	4.94	42016	7315	1040.09
Uttar Pradesh	Banda	96	4.13	59266	11915	925.05
Uttar Pradesh	Barabanki	97	3.85	58722	11232	895.18
Uttar Pradesh	Bareilly	104	3.64	78492	13678	887.13
Uttar Pradesh	Basti	106	3.47	48055	8393	1067.67
Uttar Pradesh	Bijnor	79	3.23	49416	8748	963.34
Uttar Pradesh	Budaun	108	4.48	51993	8999	915.88
Uttar Pradesh	Bulandshahar	89	3.44	59473	10578	912
Uttar Pradesh	Chandauli	98	3.29	92389	15936	993.76
Uttar Pradesh	Chitrakoot	119	3.6	88832	16937	910.69

Uttar Pradesh	Deoria	83	3.12	65914	11641	1171.6
Uttar Pradesh	Etah	86	4.16	52944	9054	884.45
Uttar Pradesh	Etawah	85	3.06	76793	16067	857.88
Uttar Pradesh	Faizabad	115	3.02	62219	12075	1016.34
Uttar Pradesh	Farrukhabad	98	3.68	54111	10364	869.08
Uttar Pradesh	Fatehpur	81	3.46	60209	11582	919.64
Uttar Pradesh	Firozabad	79	3.57	62573	11053	899.61
Uttar Pradesh	Gautam Buddha Nagar	70	2.64	89498	16323	836.82
Uttar Pradesh	Ghaziabad	59	2.54	112985	20612	862.85
Uttar Pradesh	Ghazipur	94	2.97	62521	10337	1064.96
Uttar Pradesh	Gonda	97	4.01	74324	14169	906.07
Uttar Pradesh	Gorakhpur	76	2.72	96497	17975	1073.8
Uttar Pradesh	Hamirpur	66	3.57	62783	13042	862.22
Uttar Pradesh	Hardoi	118	4.23	52567	10040	877.61
Uttar Pradesh	Hathras	78	3.2	55062	9779	868.83
Uttar Pradesh	Jalaun	97	3.1	53505	10675	880.57
Uttar Pradesh	Jaunpur	91	2.87	43285	7272	1037.06
Uttar Pradesh	Jhansi	59	2.3	73590	16295	875.12
Uttar Pradesh	Jyotiba Phule Nagar	92	3.51	37927	6546	930.23
Uttar Pradesh	Kannauj	102	3.28	156432	27431	893.92
Uttar Pradesh	Kanpur Dehat	94	2.84	50626	10543	873.47
Uttar Pradesh	Kanpur Nagar	50	2.11	144182	29525	875.09
Uttar Pradesh	Kaushambi	113	3.89	67572	13179	1032.4
Uttar Pradesh	Kheri	117	3.88	60900	12004	888.43
Uttar Pradesh	Kushinagar	99	3.33	48371	8608	1136.58
Uttar Pradesh	Lalitpur	114	3.4	39529	8108	889.05
Uttar Pradesh	Lucknow	58	2.23	105538	21138	898.35
Uttar Pradesh	Maharajganj	96	3.23	68263	12950	1133.13
Uttar Pradesh	Mahoba	73	3.55	63537	13461	887.27
Uttar Pradesh	Mainpuri	78	3.37	60823	10727	885.2
Uttar Pradesh	Mathura	58	2.98	59930	10406	876.42
Uttar Pradesh	Mau	86	2.86	74750	12606	1038.26
Uttar Pradesh	Meerut	59	3.07	77688	12884	900.55
Uttar Pradesh	Mirzapur	105	2.57	38180	6709	962.7
Uttar Pradesh	Moradabad	80	3.61	66632	11054	902.28
Uttar Pradesh	Muzaffarnagar	71	3.22	75749	12812	888.14
Uttar Pradesh	Pilibhit	91	3.56	43038	7773	880.49
Uttar Pradesh	Pratapgarh	104	2.9	86770	15695	1142.93
Uttar Pradesh	Rae Bareli	80	3.29	66935	12981	946.64
Uttar Pradesh	Rampur	86	3.48	66460	11435	904.74
Uttar Pradesh	Saharanpur	99	3.31	58510	10259	919.02
Uttar Pradesh	Sant Kabir Nagar	91	3.84	43549	8028	1174.95
Uttar Pradesh	Sant Ravidas Nagar (Bhadohi)	106	2.88	55736	8974	998.61
Uttar Pradesh	Shahjahanpur	100	4.17	55307	9822	853.67
Uttar Pradesh	Shrawasti	130	5.52	38131	7483	983.63
Uttar Pradesh	Siddharthnagar	116	4.82	56238	9919	1178.11
Uttar Pradesh	Sitapur	114	4.42	50237	9323	882.49
Uttar Pradesh	Sonbhadra	99	3.78	33562	6838	952.06

Uttar Pradesh	Sultanpur	66	3.03	61923	11251	984.1
Uttar Pradesh	Unnao	83	3.08	69686	14128	887.85
Uttar Pradesh	Varanasi	90	2.32	86266	14974	921.53

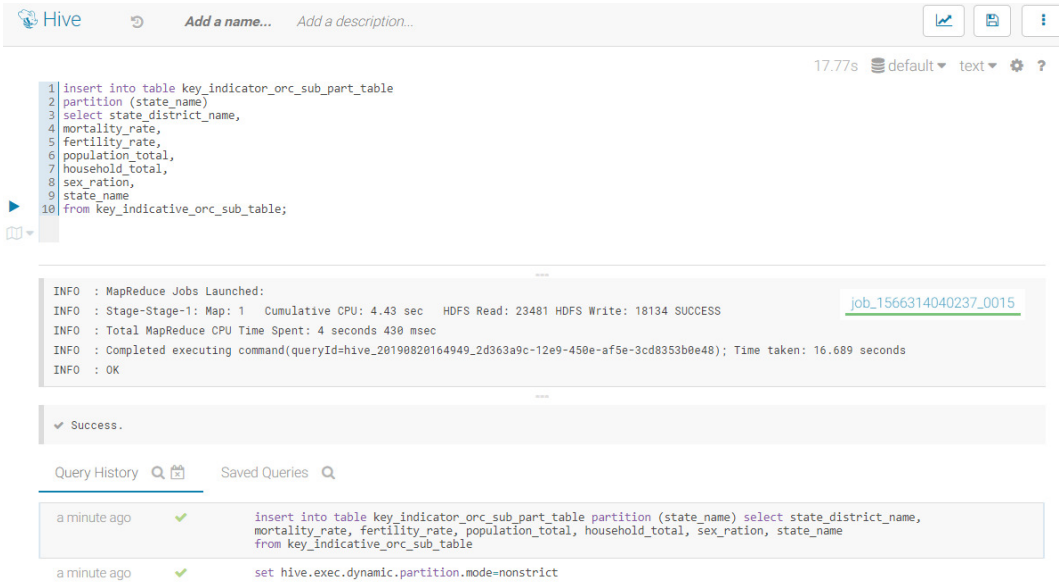


9. Create and insert command for the partition table for analyses 1 & 2. The partition table should be created using the table created above. This step to be done for the Hive only table.

```
Create table key_indicator_orc_sub_part_table (
state_district_name string,
mortality_rate DOUBLE,
fertility_rate DOUBLE,
population_total DOUBLE,
household_total DOUBLE,
sex_ratio DOUBLE)
partitioned by (state_name string)
STORED AS ORC
LOCATION '/user/hive/orc/'
TBLPROPERTIES ("orc.compress"="SNAPPY");
```

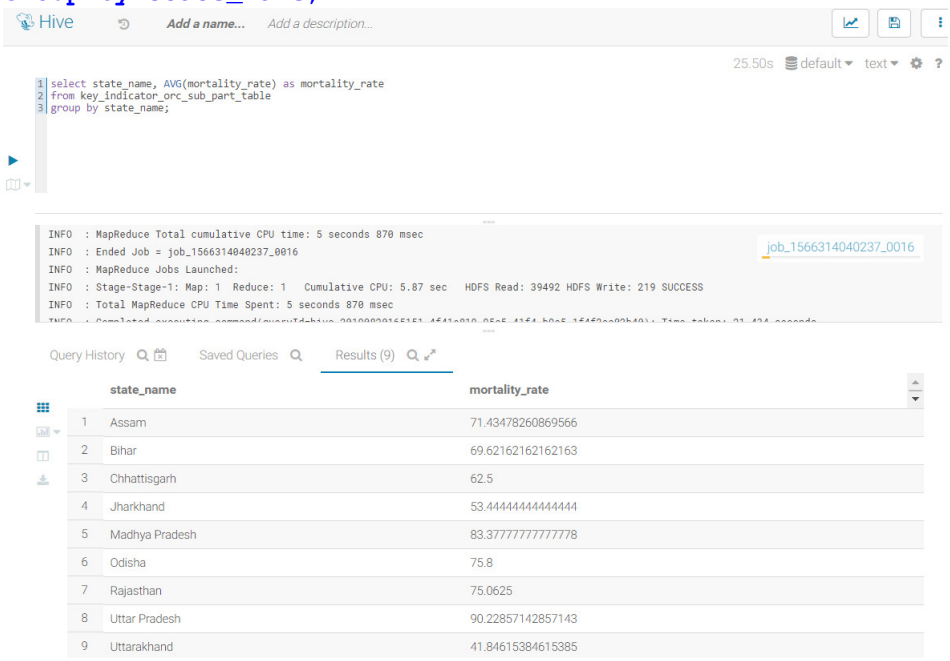
Execute below command in hive.

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

Insert into table key_indicator_orc_sub_part_table
partition (state_name)
select state_district_name,
mortality_rate,
fertility_rate,
population_total,
household_total,
sex_ration,
state_name
From key_indicative_orc_sub_table;
```

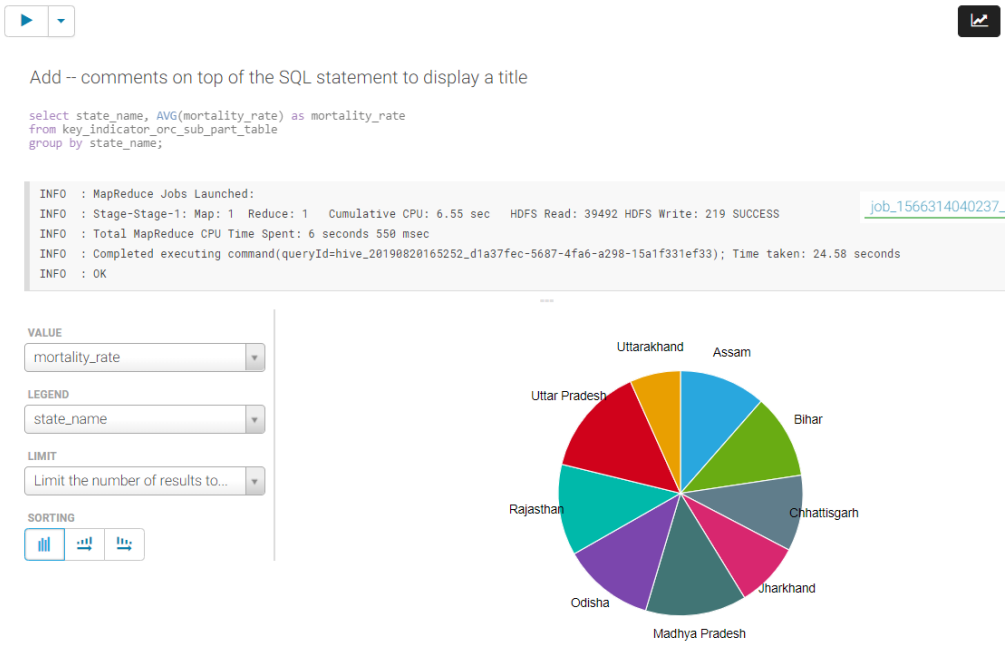


1. **The child mortality rate of Uttar Pradesh (screen shot of the result)**
   State wise child mortality rate:

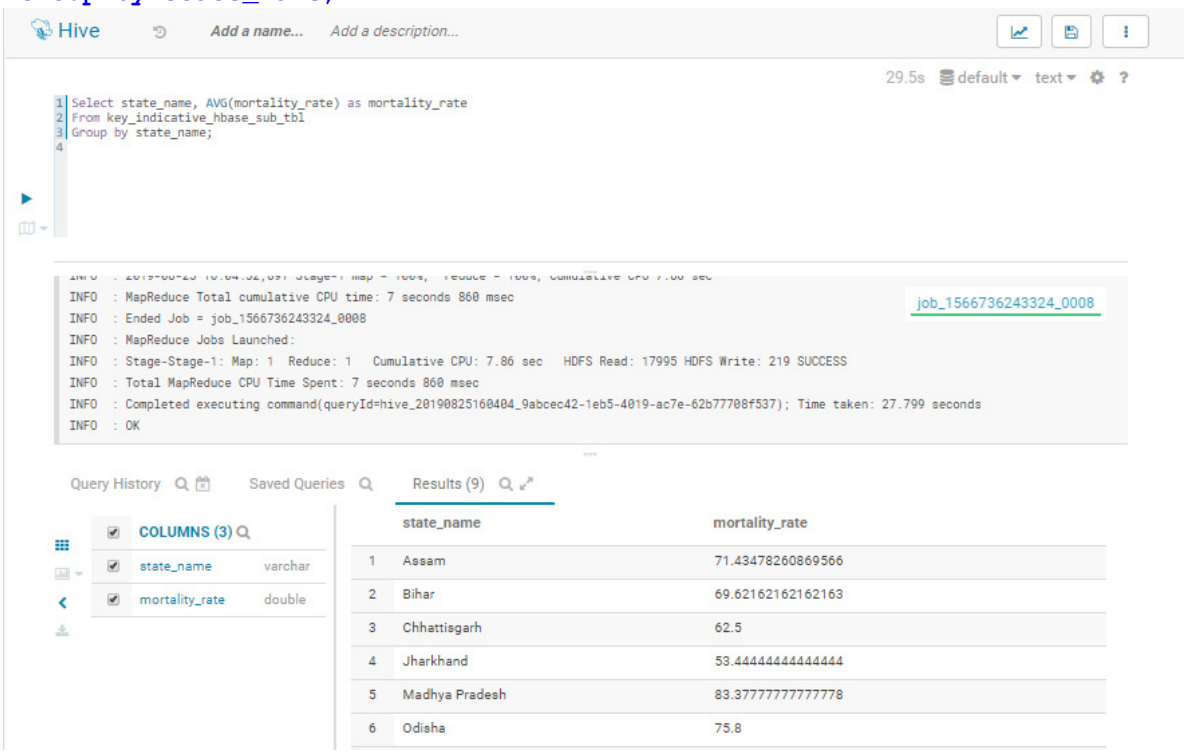
```
Select state_name, AVG(mortality_rate) as mortality_rate
From key_indicator_orc_sub_part_table
Group by state_name;
```



	state_name	mortality_rate
1	Assam	71.43478260869566
2	Bihar	69.62162162162163
3	Chhattisgarh	62.5
4	Jharkhand	53.44444444444444
5	Madhya Pradesh	83.37777777777778
6	Odisha	75.8
7	Rajasthan	75.0625
8	Uttar Pradesh	90.22857142857143
9	Uttarakhand	41.84615384615385

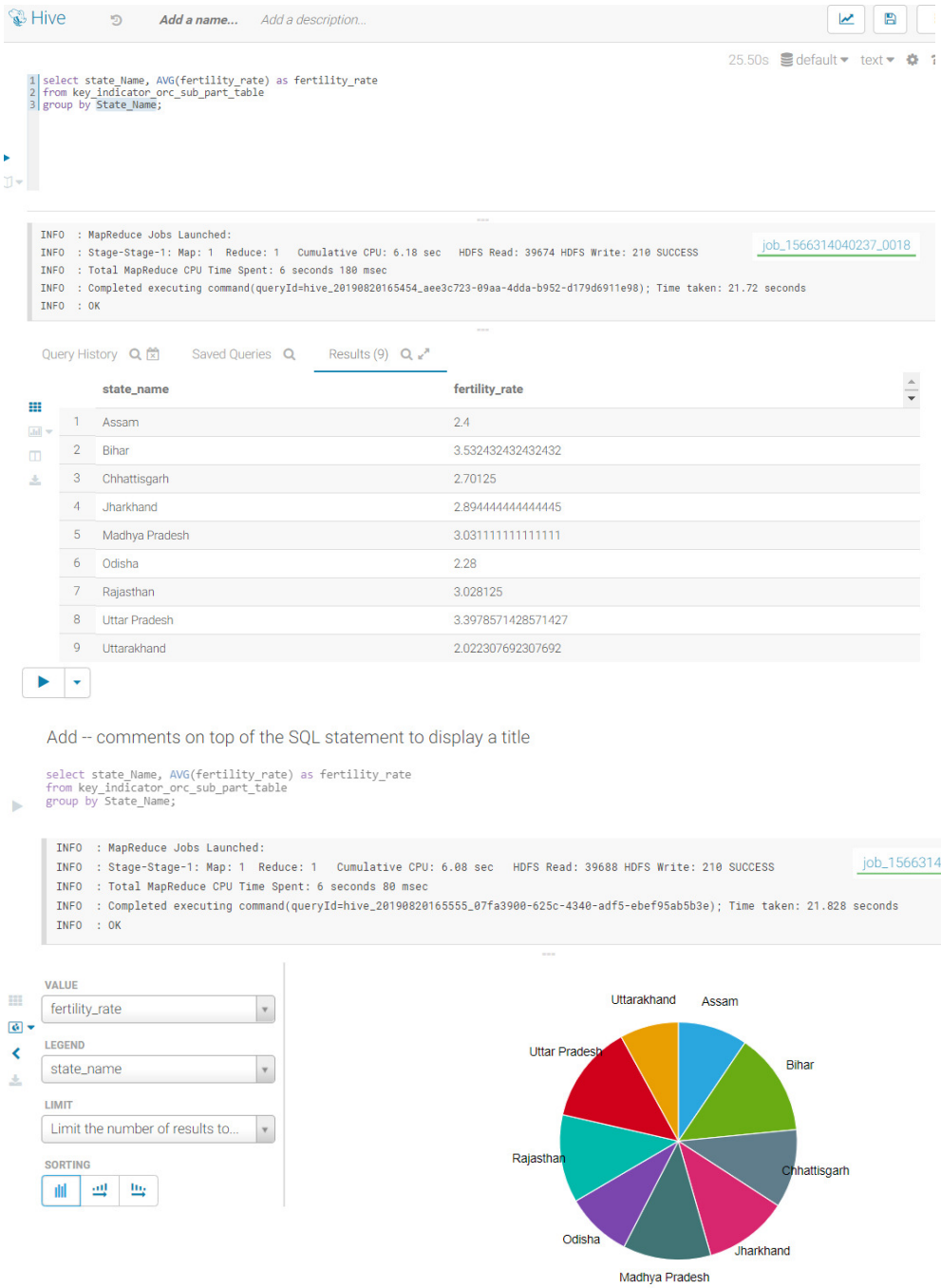



```
Select state_name, AVG(mortality_rate) as mortality_rate
From key_indicative_hbase_sub_tbl
Group by state_name;
```

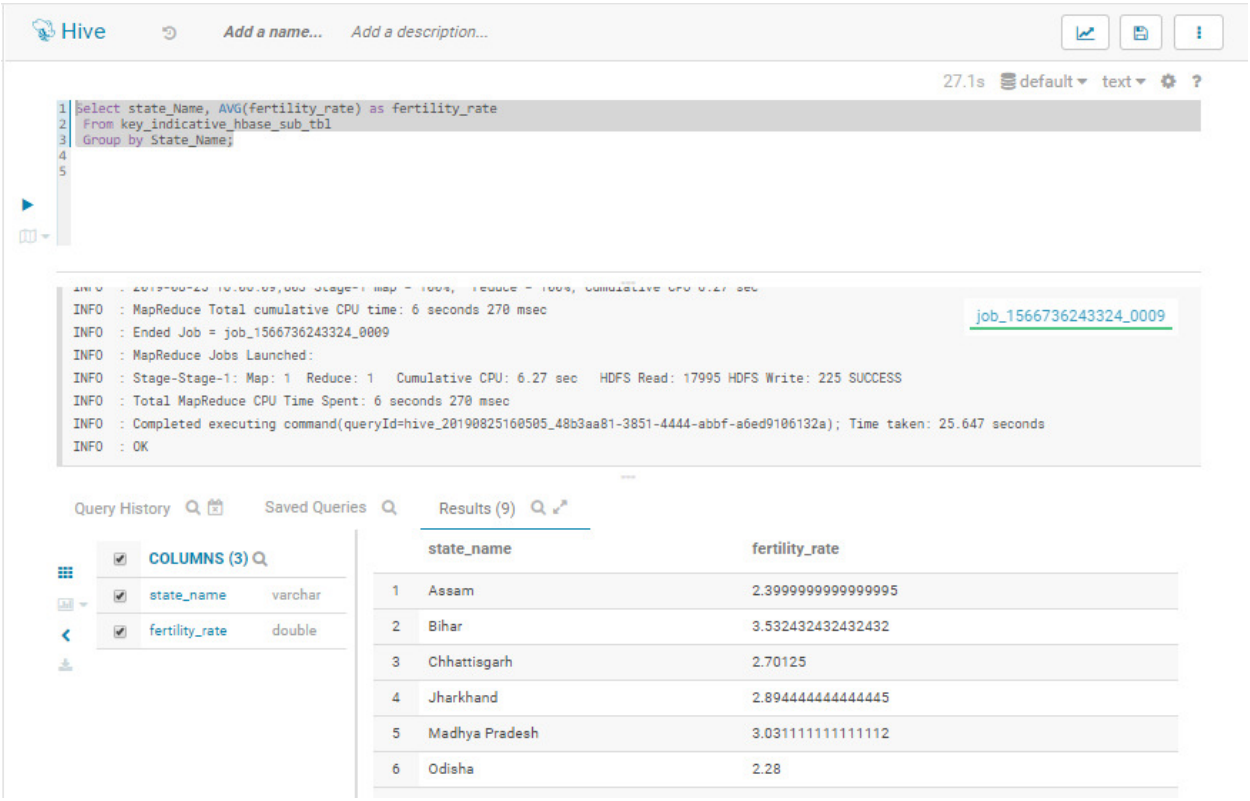


2. **State wise Fertility:**

```
Select state_Name, AVG(fertility_rate) as fertility_rate
From key_indicative_orc_sub_part_table
Group by State_Name;
```

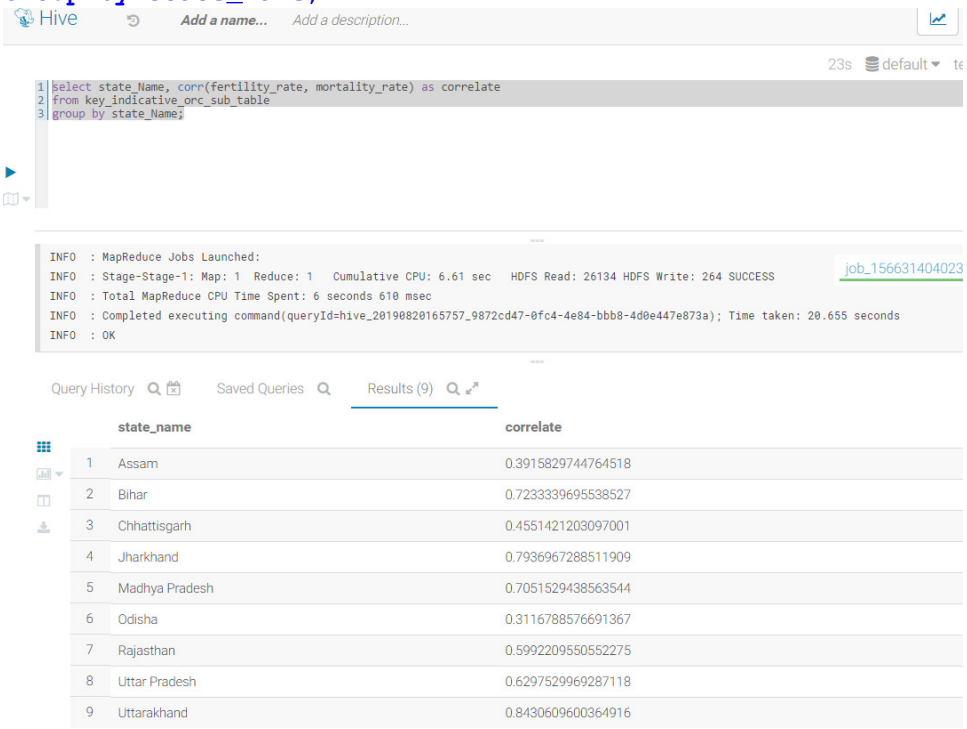


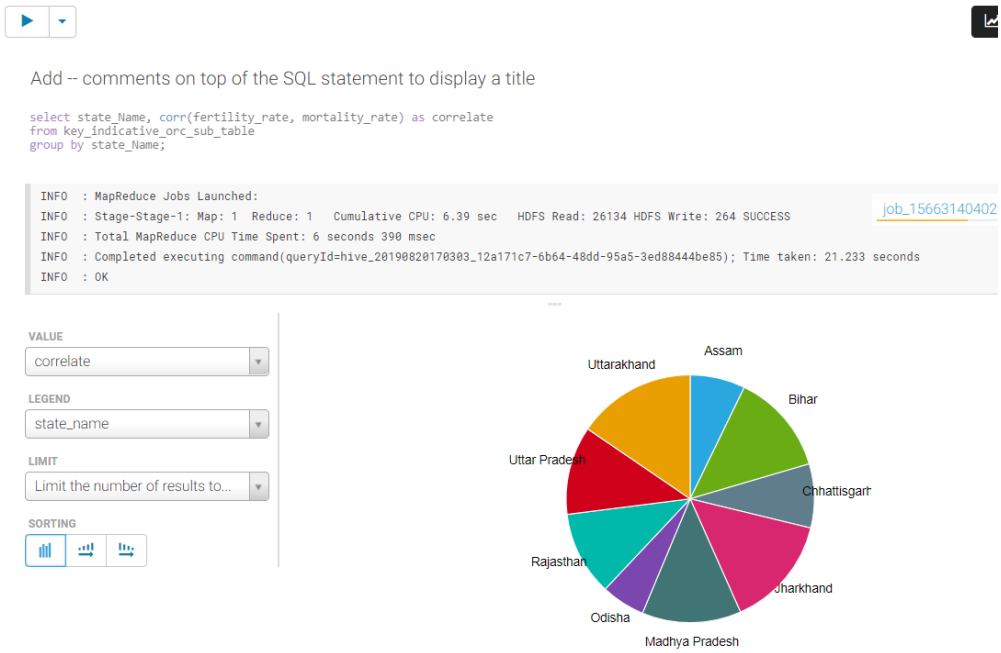

```
Select state_Name, AVG(fertility_rate) as fertility_rate
From key_indicative_hbase_sub_tbl
Group by State_Name;
```



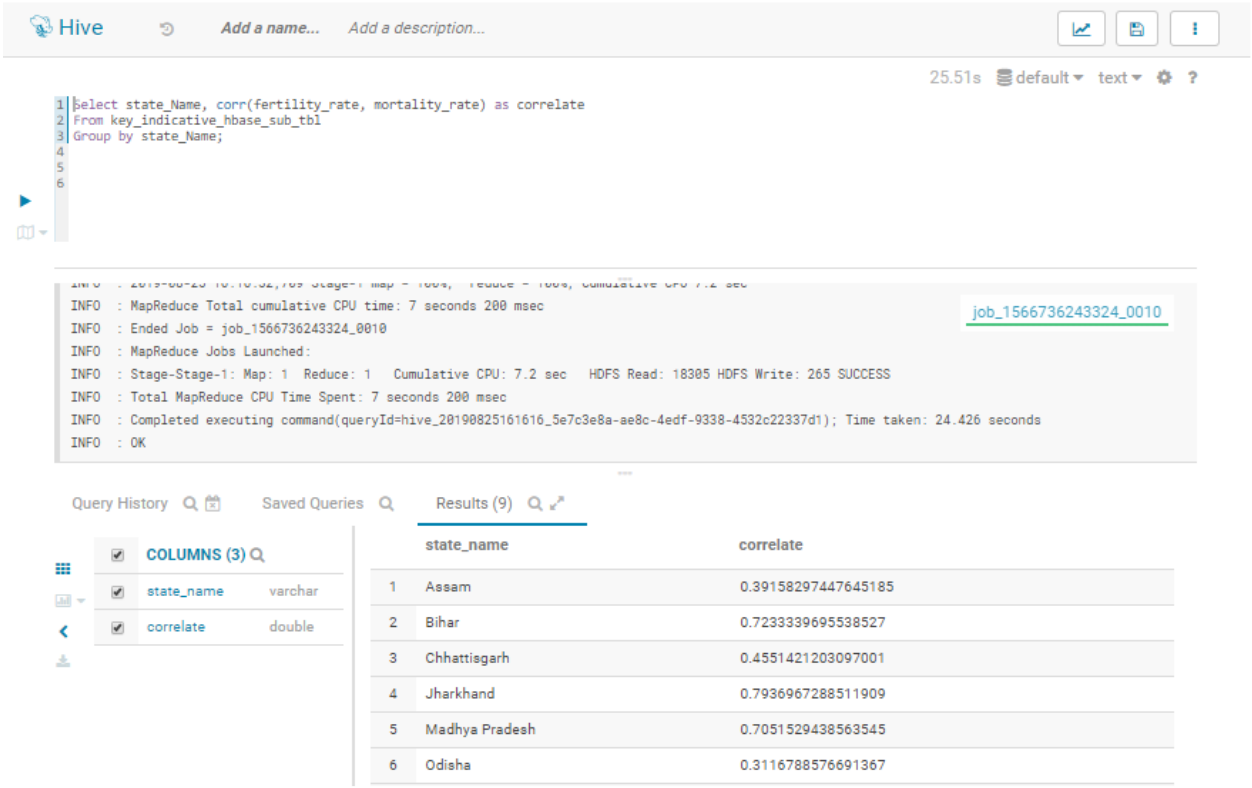
3. **Does high fertility correlate with high child mortality:**

```
Select state_Name, corr(fertility_rate, mortality_rate) as correlate
From key_indicative_orc_sub_table
Group by state_Name;
```





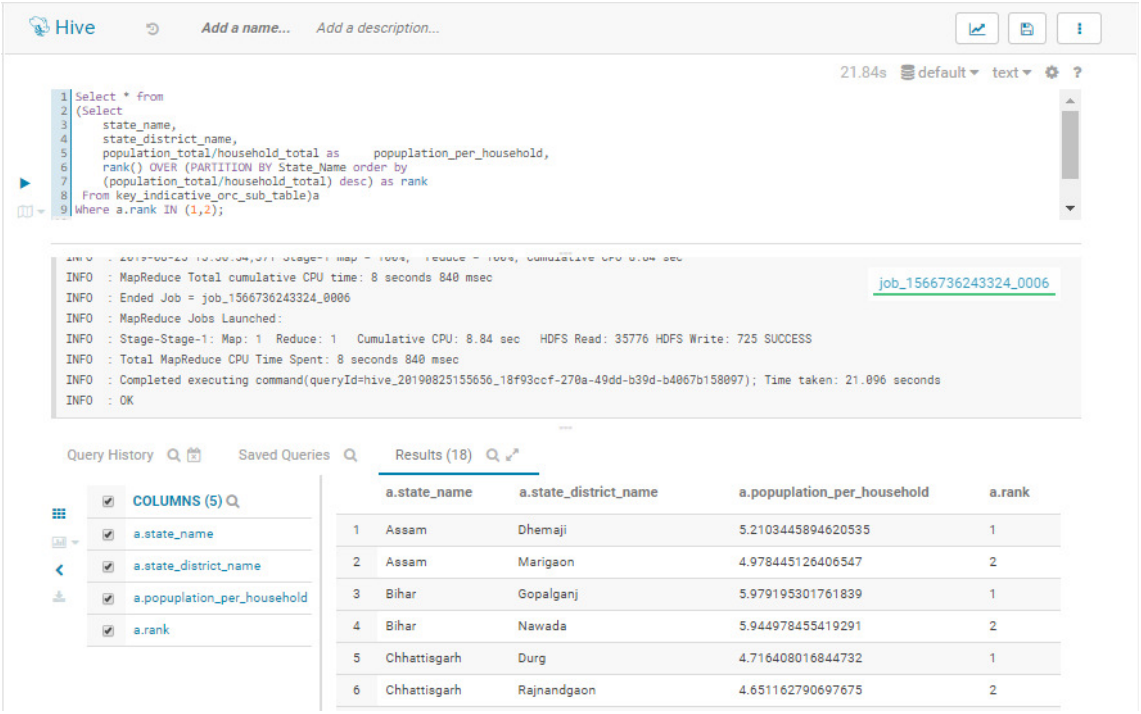

```
Select state_Name, corr(fertility_rate, mortality_rate) as correlate
From key_indicative_hbase_sub_tbl
Group by state_Name;
```



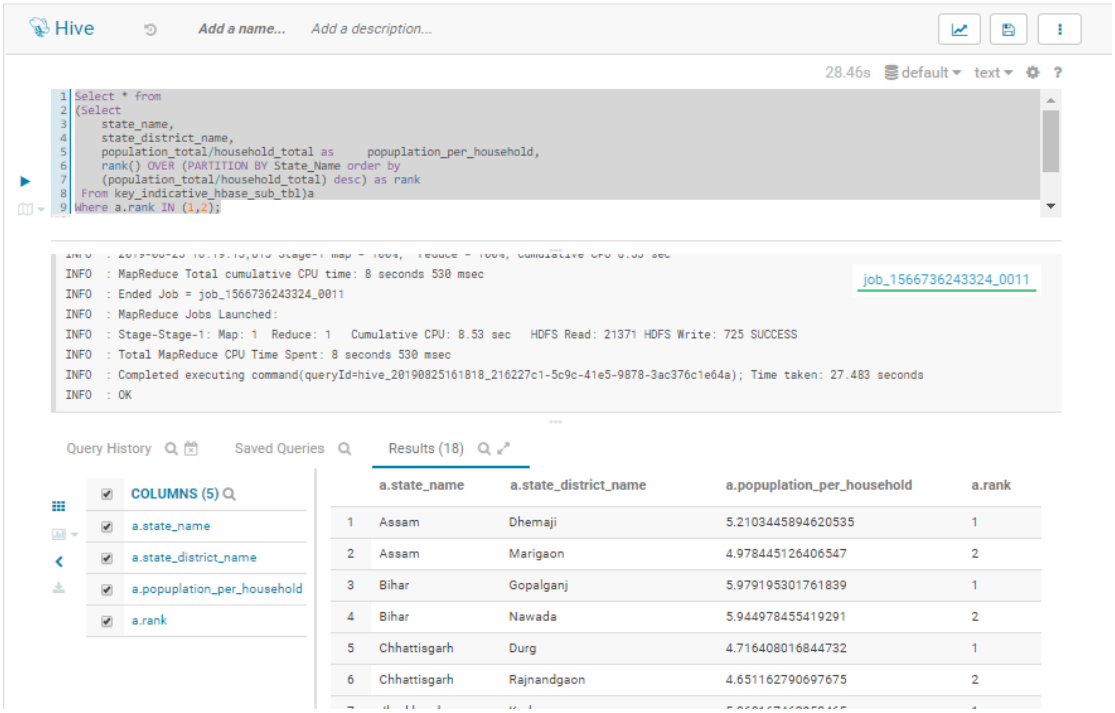
4. **Find top 2 districts per state with the highest population per household:**

```
Select * from
      (Select
            state_name,
            state_district_name,
            population_total/household_total as
            popuplation_per_household,
            rank() OVER (PARTITION BY State_Name order by
            (population_total/household_total) desc) as rank
       From key_indicative_orc_sub_table)a
Where a.rank IN (1,2);
```

a.state_name	a.state_district_name	a.popuplation_per_household	a.rank
Assam	Dhemaji	5.210344589	1
Assam	Marigaon	4.978445126	2
Bihar	Gopalganj	5.979195302	1
Bihar	Nawada	5.944978455	2
Chhattisgarh	Durg	4.716408017	1
Chhattisgarh	Rajnandgaon	4.651162791	2
Jharkhand	Kodarma	5.868167463	1
Jharkhand	Giridih	5.787106965	2
Madhya Pradesh	Jhabua	5.590392501	1
Madhya Pradesh	Sehore	5.366774132	2
Odisha	Bhadrak	4.765950743	1
Odisha	Jajapur	4.494145868	2
Rajasthan	Dhaulpur	5.810972222	1
Rajasthan	Barmer	5.629192111	2
Uttar Pradesh	Sant Ravidas Nagar (Bhadohi)	6.21083129	1
Uttar Pradesh	Baghpat	6.119567996	2
Uttarakhand	Udham Singh Nagar	5.11645329	1
Uttarakhand	Nainital	4.74891366	2



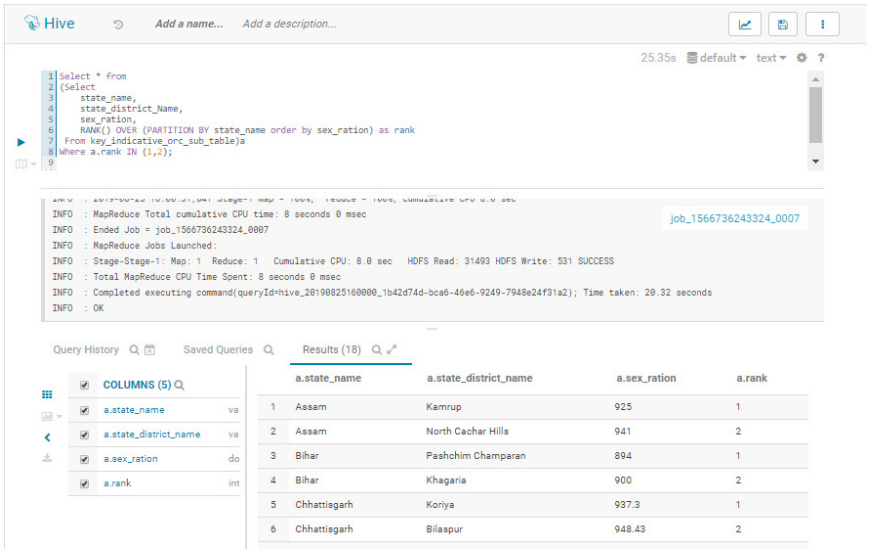

```
Select * from
(Select
      state_name,
      state_district_name,
      population_total/household_total as
      popuplation_per_household,
      rank() OVER (PARTITION BY State_Name order by
      (population_total/household_total) desc) as rank
 From key_indicative_hbase_sub_tbl)a
Where a.rank IN (1,2);
```



5. **Find top 2 districts per state with the lowest sex ratios:**

```
Select * from
      (Select
            state_name,
            state_district_Name,
            sex_ration,
            RANK() OVER (PARTITION BY state_name order by sex_ration)
      as rank
       From key_indicative_orc_sub_table)a
Where a.rank IN (1,2);
```

a.state_name	a.state_district_name	a.popuplation_per_household	a.rank
Assam	Dhemaji	5.210344589	1
Assam	Marigaon	4.978445126	2
Bihar	Gopalganj	5.979195302	1
Bihar	Nawada	5.944978455	2
Chhattisgarh	Durg	4.716408017	1
Chhattisgarh	Rajnandgaon	4.651162791	2
Jharkhand	Kodarma	5.868167463	1
Jharkhand	Giridih	5.787106965	2
Madhya Pradesh	Jhabua	5.590392501	1
Madhya Pradesh	Sehore	5.366774132	2
Odisha	Bhadrak	4.765950743	1
Odisha	Jajapur	4.494145868	2
Rajasthan	Dhaulpur	5.810972222	1
Rajasthan	Barmer	5.629192111	2
Uttar Pradesh	Sant Ravidas Nagar (Bhadohi)	6.21083129	1
Uttar Pradesh	Baghpat	6.119567996	2
Uttarakhand	Udham Singh Nagar	5.11645329	1
Uttarakhand	Nainital	4.74891366	2




```
Select * from
(Select
    state_name,
    state_district_Name,
    sex_ratio,
    RANK() OVER (PARTITION BY state_name order by sex_ratio) as rank
 From key_indicative_hbase_sub_tbl)a
Where a.rank IN (1,2);
```