Data Ingestion from the RDS to HDFS using Sqoop

1. Sqoop Import command

#> sqoop import --connect jdbc:mysql://upgradawsrds.cpclxrkdvwmz.us-east-1.rds.amazonaws.com:3306/indiaahs2012_13 --username upgraduser --password upgraduser --table Key_indicator_districtwise --target-dir /user/root/Key_indicator_districtwise_external

2. Command to see the list of imported data

#> hadoop fs -ls /user/root/Key_indicator_districtwise_external/part*

```
[hdfs@ip-10-0-0-153 ~]$ hadoop fs -ls /user/root/Key_indicator_districtwise_external/part*
-rw-r--r--   3 root supergroup     244283 2019-07-14 20:28 /user/root/Key_indicator_districtwise_external/part-m-00000
-rw-r--r--   3 root supergroup     249691 2019-07-14 20:28 /user/root/Key_indicator_districtwise_external/part-m-00001
-rw-r--r--   3 root supergroup     257360 2019-07-14 20:28 /user/root/Key_indicator_districtwise_external/part-m-00002
-rw-r--r--   3 root supergroup     276318 2019-07-14 20:28 /user/root/Key_indicator_districtwise_external/part-m-00003
```

External table creation in Hive and loading the ingested data into it. Data ingestion verification.

1. Command to create the external table

```
#> CREATE EXTERNAL TABLE Key_indicator_districtwise_ext (
 `ID` INT,
 `State_Name` STRING,
 `State_District_Name` STRING,
 `AA_Sample_Units_Total` INT,
 `AA_Sample_Units_Rural` INT,
 `AA_Sample_Units_Urban` DOUBLE,
 `AA_Households_Total` INT,
 `AA_Households_Rural` INT,
 `AA_Households_Urban` INT,
 `AA_Population_Total` INT,
 `AA_Population_Rural` INT,
 `AA_Population_Urban` INT,
 `AA_Ever_Married_Women_Aged_15_49_Years_Total` INT,
 `AA_Ever_Married_Women_Aged_15_49_Years_Rural` INT,
 `AA_Ever_Married_Women_Aged_15_49_Years_Urban` INT,
 `AA_Currently_Married_Women_Aged_15_49_Years_Total` INT,
 `AA_Currently_Married_Women_Aged_15_49_Years_Rural` INT,
 `AA_Currently_Married_Women_Aged_15_49_Years_Urban` INT,
 `AA_Children_12_23_Months_Total` INT,
 `AA_Children_12_23_Months_Rural` INT,
 `AA_Children_12_23_Months_Urban` INT,
 `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,
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`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,
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`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,
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`KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Person_Urban` DOUBLE,
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`KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Male_Rural` DOUBLE,
`KK_Chronic_Ill_And_Getting_Regular_Treatment_Govt_Male_Urban` DOUBLE,
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`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,
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`LL_Natural_Growth_Rate_Urban` DOUBLE,
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`LL_Total_Fertility_Rate_Rural` DOUBLE,
`LL_Total_Fertility_Rate_Urban` DOUBLE,
`LL_Women_20_24_Reporting_Birth_Of_Order_2__Above_Total` DOUBLE,
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`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_DOUBLEerval_Of_36_Months_Total` DOUBLE,
`LL_Live_Births_Taking_Place_After_An_DOUBLEerval_Of_36_Months_Rural` DOUBLE,
`LL_Live_Births_Taking_Place_After_An_DOUBLEerval_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,
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`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,
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`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,
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`MM_Abortion_Taking_Place_In_Institution_Urban` DOUBLE,
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`NN_Current_Usage_Any_Modern_Method_Urban` DOUBLE,
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`NN_Current_Usage_Male_Sterilization_Urban` DOUBLE,
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`NN_Current_Usage_Copper_T_Iud_Urban` DOUBLE,
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`NN_Current_Usage_Pills_Urban` DOUBLE,
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`NN_Current_Usage_Condom_Nirodh_Rural` DOUBLE,
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`NN_Current_Usage_Periodic_Abstinence_Urban` DOUBLE,
`NN_Current_Usage_Withdrawal_Total` DOUBLE,
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`NN_Current_Usage_Withdrawal_Urban` DOUBLE,
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`NN_Current_Usage_Lam_Urban` DOUBLE,
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`OO_Unmet_Need_For_Spacing_Urban` DOUBLE,
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`OO_Unmet_Need_For_Limiting_Urban` DOUBLE,
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`OO_Total_Unmet_Need_Rural` DOUBLE,
`OO_Total_Unmet_Need_Urban` DOUBLE,
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`PP_Married_Pregnant_Women_15_49_Years_Registered_For_Anc_Urban` DOUBLE,
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`PP_Mothers_Who_Had_Antenatal_Check_Up_In_First_Trimester_Rural` DOUBLE,
`PP_Mothers_Who_Had_Antenatal_Check_Up_In_First_Trimester_Urban` DOUBLE,
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`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,
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`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,
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`QQ_Delivery_At_Home_Urban` DOUBLE,
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`QQ_Delivery_At_Home_Conducted_By_Skilled_Health_Personnel_Rural` DOUBLE,
`QQ_Delivery_At_Home_Conducted_By_Skilled_Health_Personnel_Urban` DOUBLE,
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`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,
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`RR_Mothers_Who_Received_Within_48_Hrs_Of_Delivery_Rural` DOUBLE,
`RR_Mothers_Who_Received_Within_48_Hrs_Of_Delivery_Urban` DOUBLE,
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`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,
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`RR_New_Borns_Who_Were_Checked_Up_Within_24_Hrs_Of_Birth_Urban` DOUBLE,
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`SS_Availed_Financial_Assistance_For_Delivery_Under_Jsy_Urban` DOUBLE,
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`SS_Availed_Financial_Assis_For_Inst_Delivery_Under_Jsy_Urban` DOUBLE,
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`SS_Availed_Financial_Assis_For_Govt_Delivery_Under_Jsy_Rural` DOUBLE,
`SS_Availed_Financial_Assis_For_Govt_Delivery_Under_Jsy_Urban` DOUBLE,
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`TT_Children_Aged_12_23_Months_Who_Have_Received_Bcg_Urban` DOUBLE,
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`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,
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`TT_Children_Aged_12_23_Months_Received_Measles_Vaccine_Urban` DOUBLE,
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`TT_Children_Who_Have_Received_Polio_Dose_At_Birth_Urban` DOUBLE,
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`TT_Children_Who_Did_Not_Receive_Any_Vaccination_Rural` DOUBLE,
`TT_Children_Who_Did_Not_Receive_Any_Vaccination_Urban` DOUBLE,
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`TT_Children_6_35_Mon_Ifa_Tablets_Syrup_Last_3_Months_Urban` DOUBLE,
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`TT_Children_Whose_Birth_Weight_Was_Taken_Urban` DOUBLE,
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`TT_Children_With_Birth_Weight_Less_Than_2_5_Kg_Rural` DOUBLE,
`TT_Children_With_Birth_Weight_Less_Than_2_5_Kg_Urban` DOUBLE,
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`UU_Children_Diarrhoea_Who_Received_Haf_Ors_Ort_Urban` DOUBLE,
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`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,
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`VV_Children_Breastfed_Within_One_Hour_Of_Birth_Urban` DOUBLE,
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`VV_Children_6_35_Mon_Excl_Breastfed_For_At_Least_6_Mon_Rural` DOUBLE,
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`VV_Other_Than_Breast_Milk_During_First_6_Months_Water_Urban` DOUBLE,
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`VV_1st_6_Months_Semi_Solid_Mashed_Food_Urban` DOUBLE,
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`VV_1st_6_Months_Solid_Adult_Food_Rural` DOUBLE,
`VV_1st_6_Months_Solid_Adult_Food_Urban` DOUBLE,
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`VV_1st_6_Months_Vegetables_Fruits_Urban` DOUBLE,
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`VV_Avg_Month_Other_Than_Breast_Milk_Animal_Formula_Milk_Urban` DOUBLE,
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`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,
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`VV_Avg_Month_Other_Than_Breast_Milk_Solid_Adult_Food_Urban` DOUBLE,
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`VV_Avg_Month_Other_Than_Breast_Milk_Vegetables_Fruits_Urban` DOUBLE,
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`WW_Children_Registered_And_Received_Birth_Certificate_Urban` DOUBLE,
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`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 ','
location 's3a://etl-shub/Key_indicator_districtwise_external';
```

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

```
#> load data inpath '/user/root/Key_indicator_districtwise_external/part-m*' into table Key_indicator_districtwise_ext;
```

3. Queries to verify that the ingestion is correctly accomplished

a. Query to count the total number of rows along with the screenshots of the data

fetched by the query on MySQL Workbench and Hue

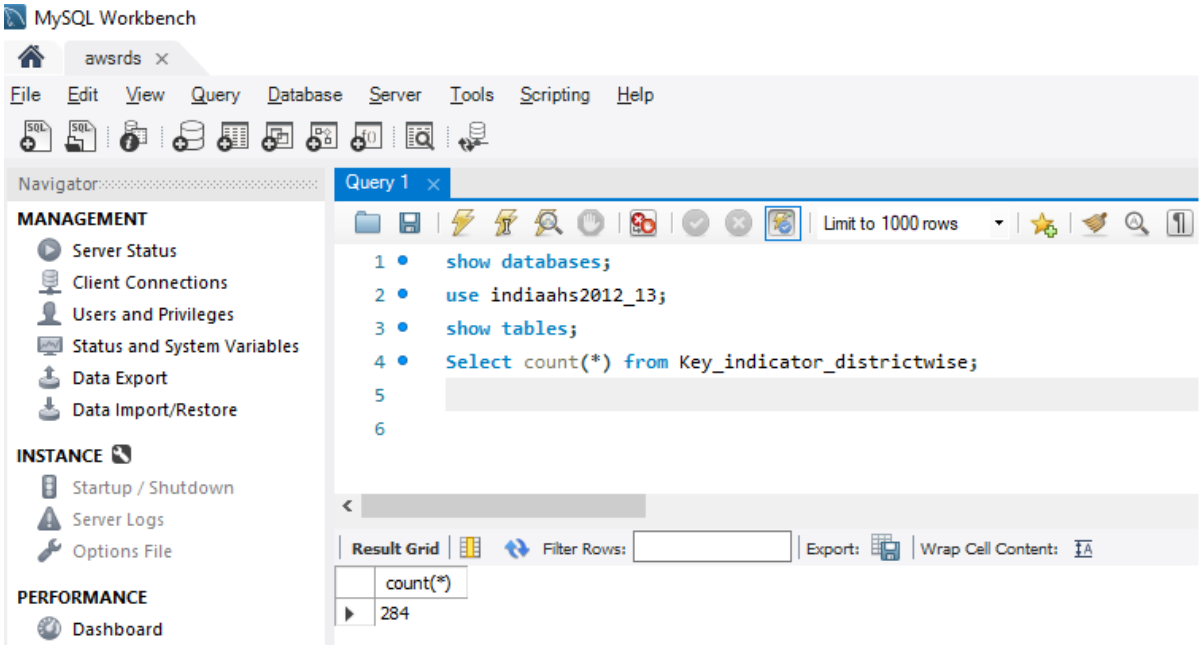
Query:

Mysql → `select count(*) from Key_indicator_districtwise;`

Hue → `select count(*) from Key_indicator_districtwise_ext;`

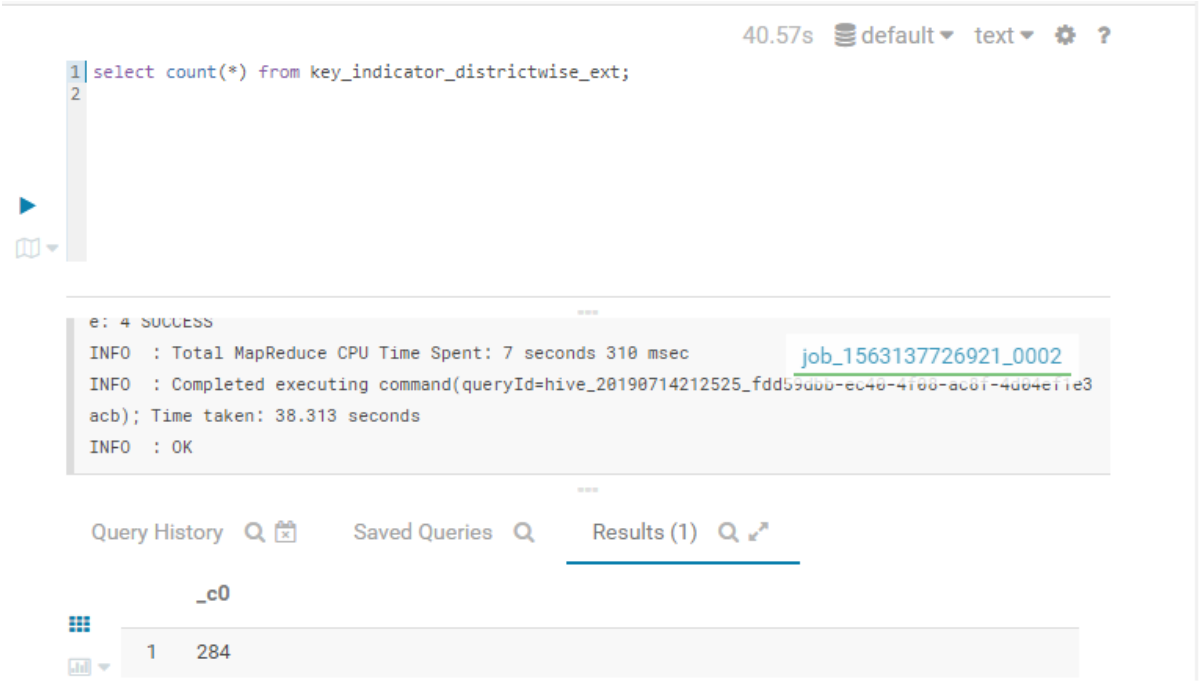
MySQL Workbench:

<Screenshot>



Hue:

<Screenshot>



b. Query to select the top 10 rows and first 8 columns along with the screenshots

of the data fetched by the query on MySQL Workbench and Hue

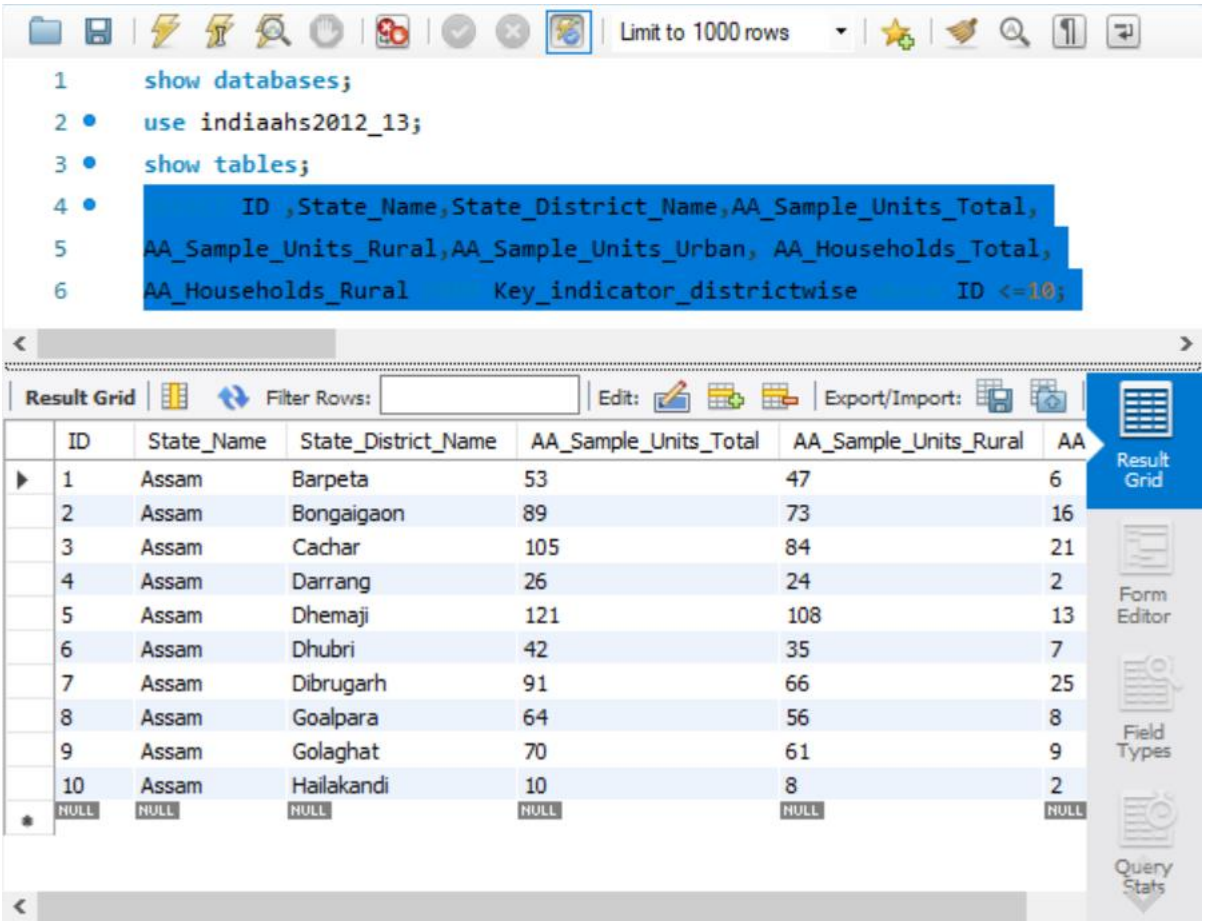
Query:

Mysql → 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_indicator_districtwise where ID <=10;

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_indicator_districtwise_ext where ID <=10;

MySQL Workbench:

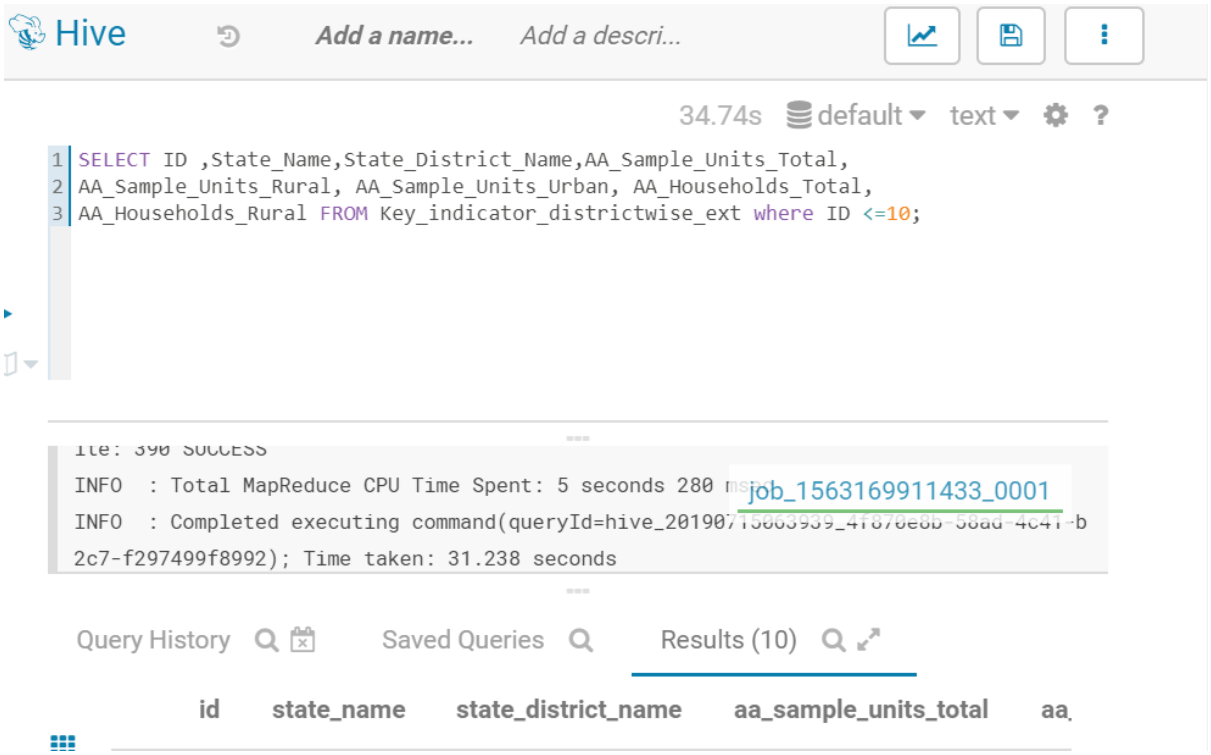
<Screenshot>



ID	State_Name	State_District_Name	AA_Sample_Units_Total	AA_Sample_Units_Rural	AA
1	Assam	Barpeta	53	47	6
2	Assam	Bongaigaon	89	73	16
3	Assam	Cachar	105	84	21
4	Assam	Darrang	26	24	2
5	Assam	Dhemaji	121	108	13
6	Assam	Dhubri	42	35	7
7	Assam	Dibrugarh	91	66	25
8	Assam	Goalpara	64	56	8
9	Assam	Golaghat	70	61	9
10	Assam	Hailakandi	10	8	2
NULL	NULL	NULL	NULL	NULL	NULL

Hue:

<Screenshot>



Query History Saved Queries Results (10)

	id	state_name	state_district_name	aa_sample_units_total	aa
1	1	Assam	Barpeta	53	47
2	2	Assam	Bongaigaon	89	73
3	3	Assam	Cachar	105	84
4	4	Assam	Darrang	26	24
5	5	Assam	Dhemaji	121	10
6	6	Assam	Dhubri	42	35
7	7	Assam	Dibrugarh	91	66
8	8	Assam	Goalpara	64	56
9	9	Assam	Golaghat	70	61
10	10	Assam	Hailakandi	10	8

Subset schema creation in Hive to support the analyses

1. Columns used in the subset schema

1. State_Name,
2. State_District_Name
3. AA_Households_Total
4. AA_Population_Total
5. CC_Sex_Ratio_All_Ages_Total
6. LL_Total_Fertility_Rate_Total
7. YY_Under_Five_Mortality_Rate_U5MR_Total_Person

2. Storage format used

ORC

3. Create and insert command for the default format

```
#> CREATE TABLE Key_indicator_districtwise_ext_subset (
 `State_Name` STRING,
 `State_District_Name` STRING,
 `AA_Households_Total` INT,
 `AA_Population_Total` INT,
 `CC_Sex_Ratio_All_Ages_Total` DOUBLE,
 `LL_Total_Fertility_Rate_Total` DOUBLE,
 `YY_Under_Five_Mortality_Rate_U5MR_Total_Person` DOUBLE )
 row format delimited fields terminated by ',';
```

```
#> INSERT INTO Key_indicator_districtwise_ext_subset SELECT State_Name,
 State_District_Name,
 AA_Households_Total, AA_Population_Total,
 CC_Sex_Ratio_All_Ages_Total,
 LL_Total_Fertility_Rate_Total,
 YY_Under_Five_Mortality_Rate_U5MR_Total_Person FROM Key_indicator_districtwise_ext;
```

4. Create and insert command for the formats such as ORC

```
#> CREATE TABLE Key_indicator_districtwise_ext_ORC (
 `State_Name` STRING,
 `State_District_Name` STRING,
 `AA_Households_Total` INT,
 `AA_Population_Total` INT,
 `CC_Sex_Ratio_All_Ages_Total` DOUBLE,
 `LL_Total_Fertility_Rate_Total` DOUBLE,
 `YY_Under_Five_Mortality_Rate_U5MR_Total_Person` DOUBLE )
 row format delimited fields terminated by ',' STORED AS ORC tblproperties
("orc.compress"="SNAPPY");

 #> INSERT INTO Key_indicator_districtwise_ext_ORC SELECT State_Name,
 State_District_Name,
 AA_Households_Total,
 AA_Population_Total,
 CC_Sex_Ratio_All_Ages_Total,
 LL_Total_Fertility_Rate_Total,
 YY_Under_Five_Mortality_Rate_U5MR_Total_Person FROM Key_indicator_districtwise_ext;
```

5. Create and insert command for the Hive-HBase integrated table

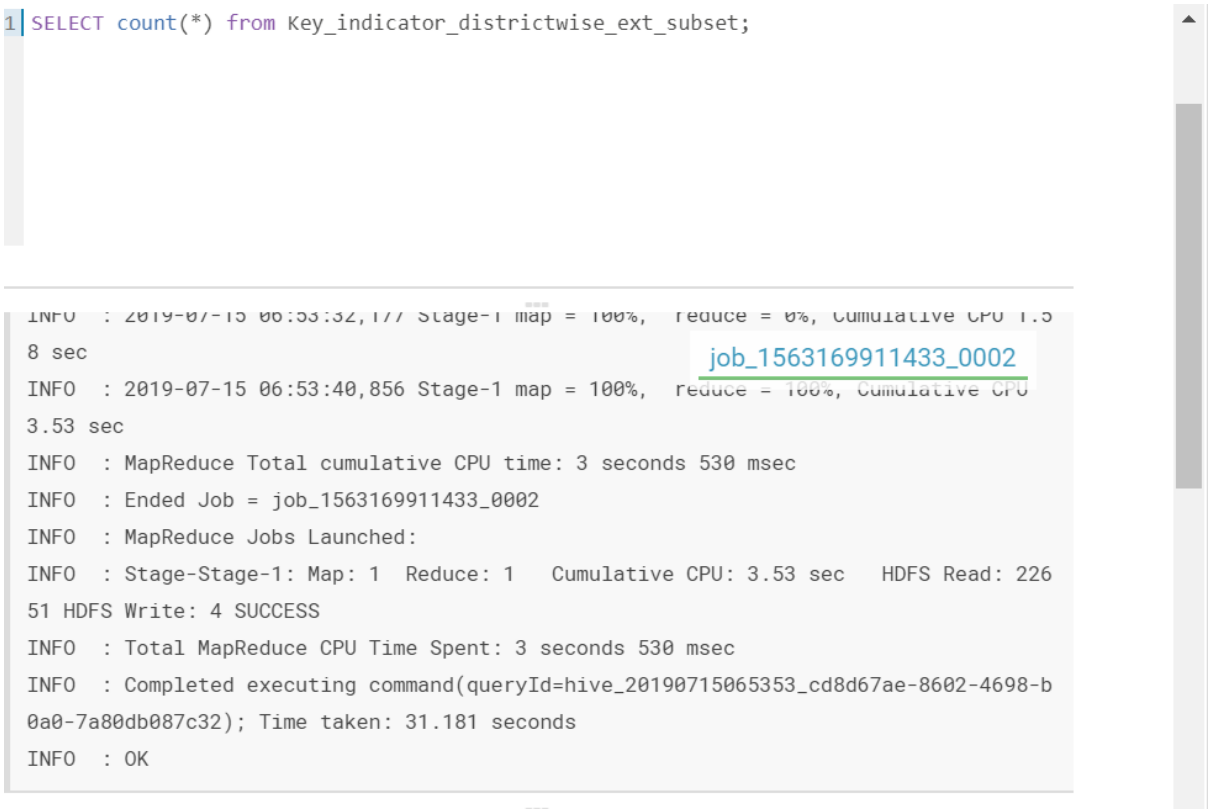
```
#> CREATE TABLE Key_indicator_districtwise_ext_HIVE_HBASE(`ID` INT,`State_Name` STRING,
 `State_District_Name` STRING,
 `AA_Households_Total` INT,
 `AA_Population_Total` INT,
 `CC_Sex_Ratio_All_Ages_Total` DOUBLE,
 `LL_Total_Fertility_Rate_Total` DOUBLE,
 `YY_Under_Five_Mortality_Rate_U5MR_Total_Person` DOUBLE)
STORED BY 'org.apache.hadoop.hive.hbase.HBaseStorageHandler'
WITH SERDEPROPERTIES ("hbase.columns.mapping" =
":key,cf2:val,cf3:val,cf4:val,cf5:val,cf6:val,cf7:val,cf8:val")
TBLPROPERTIES ("hbase.table.name" = "Key_indicator_districtwise_ext_HBASE_HIVE");

#> insert overwrite table Key_indicator_districtwise_ext_HIVE_HBASE
SELECT ID,State_Name,
 State_District_Name,
 AA_Households_Total,
 AA_Population_Total,
 CC_Sex_Ratio_All_Ages_Total,
 LL_Total_Fertility_Rate_Total,
```

YY_Under_Five_Mortality_Rate_U5MR_Total_Person FROM Key_indicator_districtwise_ext;

6. Screenshot of runtimes against each query given above for the default format, formats such as ORC format as well as Hive-Hbase integration

For default format:

<Screenshot of run time for query 1>



<Screenshot of run time for query 2>

```
select State_Name, count(*) from Key_indicator_districtwise_ext_subset
group by State_Name;
```

```
INFO  : 2019-07-15 07:02:57,672 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 1.5
4 sec
INFO  : 2019-07-15 07:03:08,361 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU
3.96 sec
INFO  : MapReduce Total cumulative CPU time: 3 seconds 960 msec
INFO  : Ended Job = job_1563169911433_0003
INFO  : MapReduce Jobs Launched:
INFO  : Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 3.96 sec   HDFS Read: 230
90 HDFS Write: 120 SUCCESS
INFO  : Total MapReduce CPU Time Spent: 3 seconds 960 msec
INFO  : Completed executing command(queryId=hive_20190715070202_317d4c8f-e3b4-4020-a
472-eb826998dddb); Time taken: 32.604 seconds
INFO  : OK
```

job_1563169911433_0003

<Screenshot of run time for query 3>

```
select * from Key_indicator_districtwise_ext_subset where State_Name = 'Uttar Pradesh
```

```
s: 0
INFO  : 2019-07-15 07:06:19,327 Stage-1 map = 0%,  reduce = 0%
INFO  : 2019-07-15 07:06:28,906 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 2.5
7 sec
INFO  : MapReduce Total cumulative CPU time: 2 seconds 570 msec
INFO  : Ended Job = job_1563169911433_0004
INFO  : MapReduce Jobs Launched:
INFO  : Stage-Stage-1: Map: 1   Cumulative CPU: 2.57 sec   HDFS Read: 19387 HDFS Wri
te: 3703 SUCCESS
INFO  : Total MapReduce CPU Time Spent: 2 seconds 570 msec
INFO  : Completed executing command(queryId=hive_20190715070606_487495eb-aadd-47d3-b
184-51f4f4355ad7); Time taken: 22.585 seconds
INFO  : OK
```

job_1563169911433_0004

For formats such as ORC:

<Screenshot of run time for query 1>

```
1 select count(*) from Key_indicator_districtwise_ext_ORC;
```

```
INFO  : 2019-07-15 07:37:33,878 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 1.7
7 sec                                                    job_1563169911433_0009
INFO  : 2019-07-15 07:37:43,442 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU
4.15 sec
INFO  : MapReduce Total cumulative CPU time: 4 seconds 150 msec
INFO  : Ended Job = job_1563169911433_0009
INFO  : MapReduce Jobs Launched:
INFO  : Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 4.15 sec   HDFS Read: 236
65 HDFS Write: 4 SUCCESS
INFO  : Total MapReduce CPU Time Spent: 4 seconds 150 msec
INFO  : Completed executing command(queryId=hive_20190715073737_1470e0e7-99c3-40eb-8
29c-7c386fe675d9); Time taken: 31.741 seconds
INFO  : OK
```

<Screenshot of run time for query 2>

```
1 select State_Name, count(*) from Key_indicator_districtwise_ext_ORC group
2 by State_Name;
```

```
INFO  : 2019-07-15 07:25:35,797 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 1.7
6 sec                                                    job_1563169911433_0006
INFO  : 2019-07-15 07:25:45,454 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU
4.3 sec
INFO  : MapReduce Total cumulative CPU time: 4 seconds 300 msec
INFO  : Ended Job = job_1563169911433_0006
INFO  : MapReduce Jobs Launched:
INFO  : Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 4.3 sec   HDFS Read: 2456
5 HDFS Write: 120 SUCCESS
INFO  : Total MapReduce CPU Time Spent: 4 seconds 300 msec
INFO  : Completed executing command(queryId=hive_20190715072525_e2a1cdc1-05b7-4374-b
5b7-13a3f3b87784); Time taken: 32.278 seconds
INFO  : OK
```

<Screenshot of run time for query 3>

```
1 select * from Key_indicator_districtwise_ext_ORC where State_Name = 'Uttar Pradesh';
```

```
s: 0
INFO  : 2019-07-15 07:22:24,384 Stage-1 map = 0%,  reduce = 0%
INFO  : 2019-07-15 07:22:33,001 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 2.1
2 sec
INFO  : MapReduce Total cumulative CPU time: 2 seconds 120 msec
INFO  : Ended Job = job_1563169911433_0005
INFO  : MapReduce Jobs Launched:
INFO  : Stage-Stage-1: Map: 1   Cumulative CPU: 2.12 sec   HDFS Read: 22331 HDFS Wri
te: 3703 SUCCESS
INFO  : Total MapReduce CPU Time Spent: 2 seconds 120 msec
INFO  : Completed executing command(queryId=hive_20190715072222_e3bfd5eb-f572-4f58-a
ac3-353da2313aba); Time taken: 21.731 seconds
INFO  : OK
```

job_1563169911433_0005

For Hive-Hbase Integrated Table:

<Screenshot of run time for query 1>

```
1 select count(*) from Key_indicator_districtwise_ext_HIVE_HBASE;
```

```
INFO  : 2019-07-15 07:35:59,477 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 3.2
6 sec                                                    job_1563169911433_0008
INFO  : 2019-07-15 07:36:09,106 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU
5.44 sec
INFO  : MapReduce Total cumulative CPU time: 5 seconds 440 msec
INFO  : Ended Job = job_1563169911433_0008
INFO  : MapReduce Jobs Launched:
INFO  : Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 5.44 sec   HDFS Read: 172
66 HDFS Write: 4 SUCCESS
INFO  : Total MapReduce CPU Time Spent: 5 seconds 440 msec
INFO  : Completed executing command(queryId=hive_20190715073535_80f09167-ca02-40bd-b
05c-ec0aa5824dd5); Time taken: 43.215 seconds
INFO  : OK
```

<Screenshot of run time for query 2>

```
1 select State_Name, count(*) from Key_indicator_districtwise_ext_HIVE_HBASE group
2 by State_Name;
```

```
INFO  : 2019-07-15 07:31:19,650 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 3.2
1 sec                                                    job_1563169911433_0007
INFO  : 2019-07-15 07:31:29,407 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU
5.59 sec
INFO  : MapReduce Total cumulative CPU time: 5 seconds 590 msec
INFO  : Ended Job = job_1563169911433_0007
INFO  : MapReduce Jobs Launched:
INFO  : Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 5.59 sec   HDFS Read: 175
51 HDFS Write: 120 SUCCESS
INFO  : Total MapReduce CPU Time Spent: 5 seconds 590 msec
INFO  : Completed executing command(queryId=hive_20190715073030_5706ec3e-a2df-4bdf-8
e12-8ab61b9da045); Time taken: 39.957 seconds
INFO  : OK
```

<Screenshot of run time for query 3>

```
select * from Key_indicator_districtwise_ext_HIVE_HBASE where
State_Name = 'Uttar Pradesh';
```

```
s: 0
INFO  : 2019-07-15 07:39:45,871 Stage-1 map = 0%,  reduce = 0%
INFO  : 2019-07-15 07:39:56,455 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 3.7
9 sec
INFO  : MapReduce Total cumulative CPU time: 3 seconds 790 msec
INFO  : Ended Job = job_1563169911433_0010
INFO  : MapReduce Jobs Launched:
INFO  : Stage-Stage-1: Map: 1   Cumulative CPU: 3.79 sec   HDFS Read: 14103 HDFS Wri
te: 3983 SUCCESS
INFO  : Total MapReduce CPU Time Spent: 3 seconds 790 msec
INFO  : Completed executing command(queryId=hive_20190715073939_78e94aa1-fbb4-4450-b
534-eb7bc230f19c); Time taken: 28.527 seconds
INFO  : OK
```

job_1563169911433_0010

6. Create and insert command for the partition table for analyses 1 & 2.

```
#> CREATE TABLE Key_indicator_districtwise_ext_ORC_PARTITION (
 `State_District_Name` STRING,
 `AA_Households_Total` INT,
 `AA_Population_Total` INT,
 `CC_Sex_Ratio_All_Ages_Total` DOUBLE,
 `LL_Total_Fertility_Rate_Total` DOUBLE,
 `YY_Under_Five_Mortality_Rate_U5MR_Total_Person` DOUBLE )
 PARTITIONED BY (`State_Name` STRING)
 row format delimited fields terminated by ','
 STORED AS ORC tblproperties ("orc.compress"="SNAPPY");

#> Insert into table Key_indicator_districtwise_ext_ORC_PARTITION partition(State_Name)
 select
 State_District_Name,
 AA_Households_Total,
 AA_Population_Total,
 CC_Sex_Ratio_All_Ages_Total,
 LL_Total_Fertility_Rate_Total,
 YY_Under_Five_Mortality_Rate_U5MR_Total_Person,
 State_Name from Key_indicator_districtwise_ext_ORC;
```

The result of each analysis along with the query and the corresponding chart generated in

Hue. Keep optimizations in mind

1. The child mortality rate of Uttar Pradesh

<Query on the table with the chosen format such as orc>

#> select AVG(YY_Under_Five_Mortality_Rate_U5MR_Total_Person) AS CHILD_MORTALITY_RATE from Key_indicator_districtwise_ext_ORC where State_Name = 'Uttar Pradesh';

<Screenshot of the result>

<Query on the Hive-Hbase integrated table>

#> select AVG(YY_Under_Five_Mortality_Rate_U5MR_Total_Person) AS CHILD_MORTALITY_RATE from key_indicator_districtwise_ext_hive_hbase where State_Name = 'Uttar Pradesh';

<Screenshot of the result>

2. The fertility rate of Bihar

<Query on the table with the chosen format such as orc>

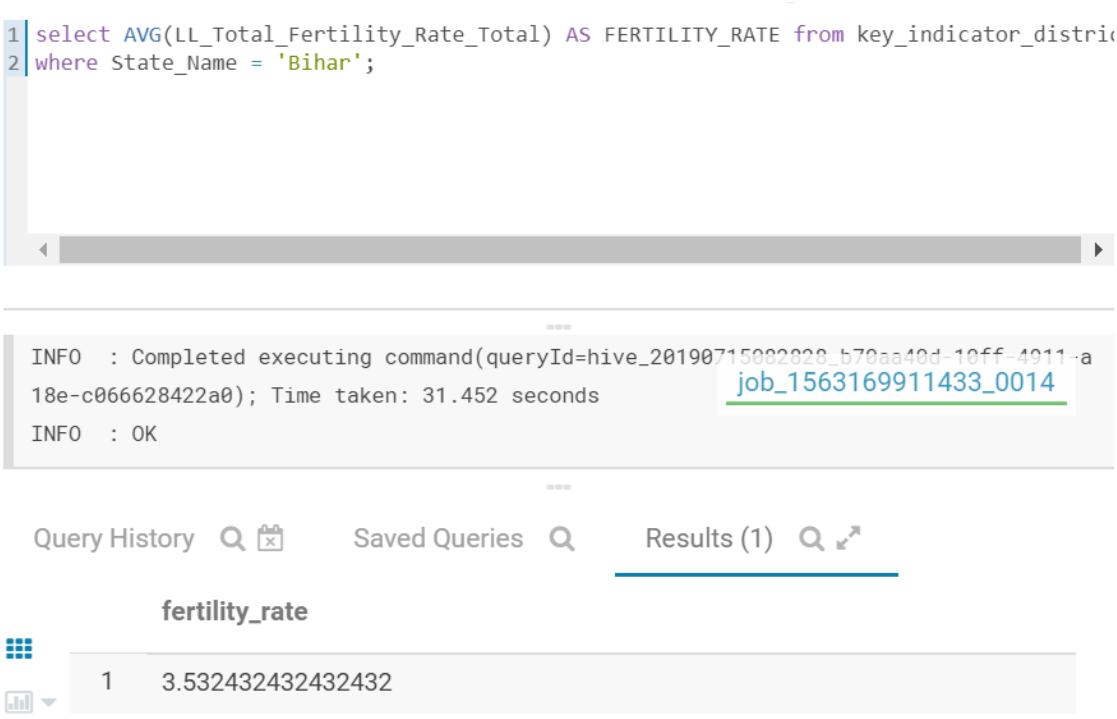
#> select AVG(LL_Total_Fertility_Rate_Total) AS FERTILITY_RATE from Key_indicator_districtwise_ext_ORC where State_Name = 'Bihar';

<Screenshot of the result>

<Query on the Hive-Hbase integrated table>

#> select AVG(LL_Total_Fertility_Rate_Total) AS FERTILITY_RATE from key_indicator_districtwise_ext_hive_hbase where State_Name = 'Bihar';

<Screenshot of the result>



3. State wise child mortality rate and state wise fertility rate and does high fertility

correlate with high child mortality?

<Query on the table with the chosen format such as orc>

#> select State_Name,AVG(YY_Under_Five_Mortality_Rate_U5MR_Total_Person) AS CHILD_MORTALITY_RATE from key_indicator_districtwise_ext_orc group by State_Name;

<Screenshot of the result>

```
select State_Name,AVG(YY_Under_Five_Mortality_Rate_U5MR_Total_Person) AS CHILD_MORTALI
from key_indicator_districtwise_ext_orc group by State_Name;
```

```
INFO  : Completed executing command(queryId=hive_20190715083030_ce0df40e-957f-4038-a
15d-16d4388e4f52); Time taken: 24.331 seconds
INFO  : OK
```

job_1563169911433_0015

Query History | Saved Queries | Results (9)

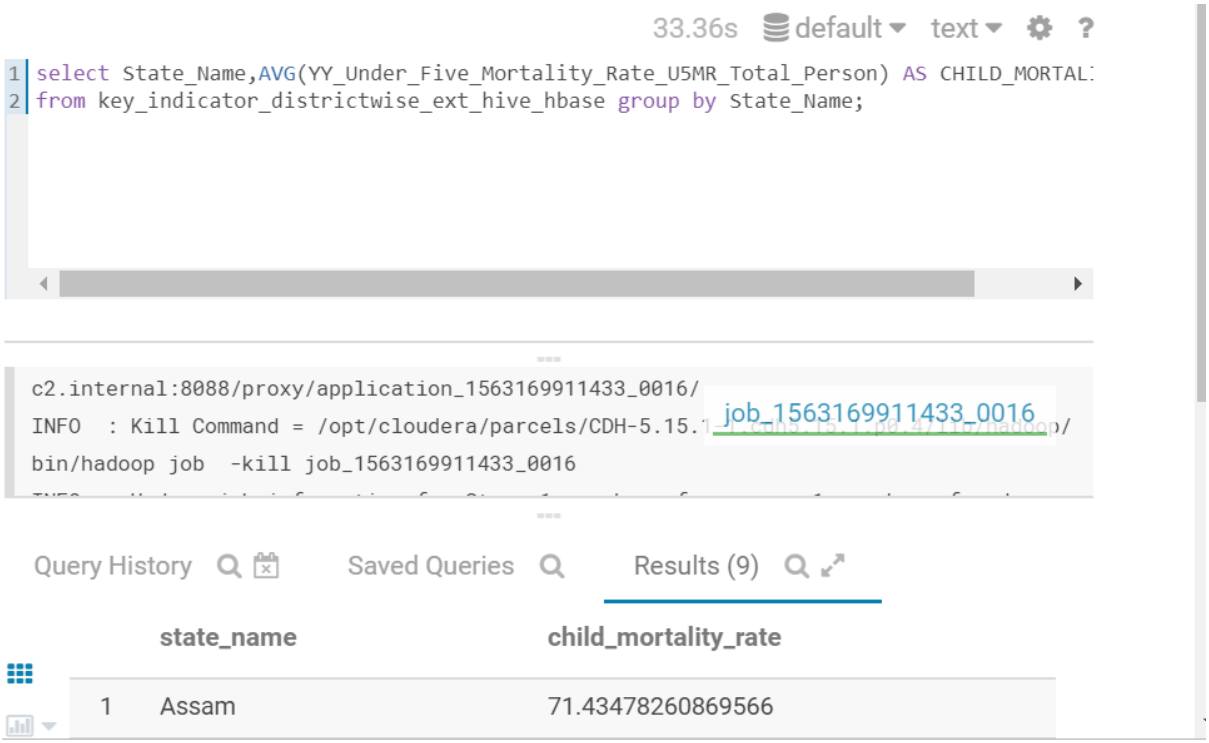
	state_name	child_mortality_rate
1	Assam	71.43478260869566

	state_name	child_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

<Query on the Hive-Hbase integrated table>

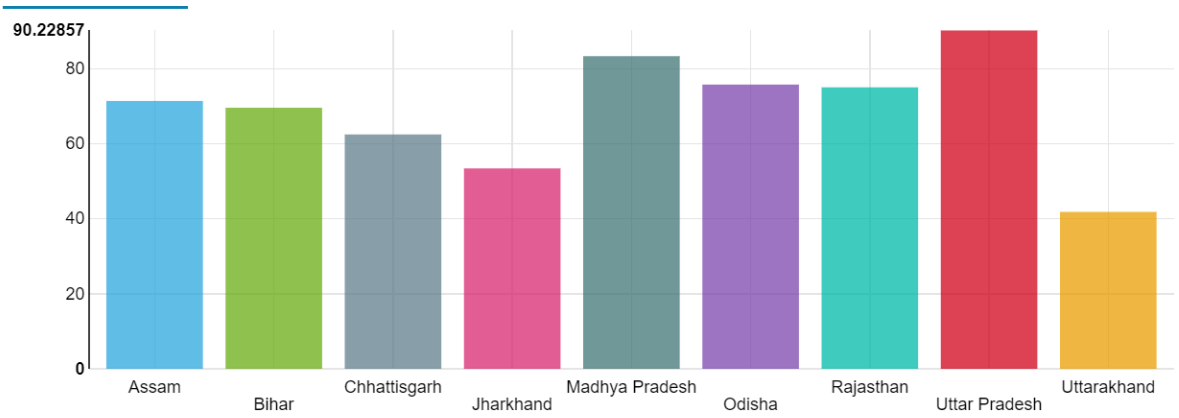
#> select State_Name,AVG(YY_Under_Five_Mortality_Rate_U5MR_Total_Person) AS CHILD_MORTALITY_RATE from key_indicator_districtwise_ext_hive_hbase group by State_Name;

<Screenshot of the result>



	state_name	child_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

<Chart>



<Query on the table with the chosen format such as orc>

#> select State_Name,AVG(LL_Total_Fertility_Rate_Total) AS FERTILITY_RATE from key_indicator_districtwise_ext_ORC group by State_Name;

<Screenshot of the result>

	state_name	fertility_rate
1	Assam	2.4
2	Bihar	3.532432432432432
3	Chhattisgarh	2.70125
4	Jharkhand	2.894444444444445
5	Madhya Pradesh	3.031111111111111
6	Odisha	2.28
7	Rajasthan	3.028125
8	Uttar Pradesh	3.3978571428571427
9	Uttarakhand	2.022307692307692

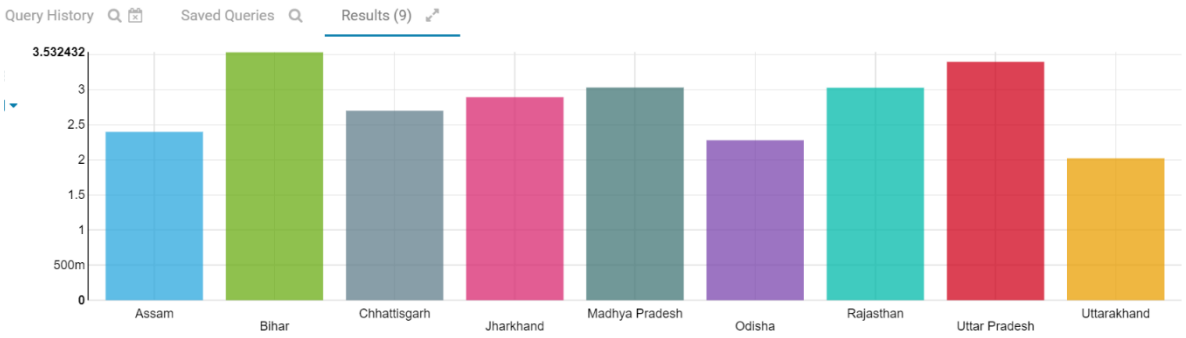
<Query on the Hive-Hbase integrated table>

#> select State_Name,AVG(LL_Total_Fertility_Rate_Total) AS FERTILITY_RATE from key_indicator_districtwise_ext_hive_hbase group by State_Name;

<Screenshot of the result>

	state_name	fertility_rate
1	Assam	2.3999999999999995
2	Bihar	3.532432432432432
3	Chhattisgarh	2.70125
4	Jharkhand	2.894444444444445
5	Madhya Pradesh	3.031111111111112
6	Odisha	2.28
7	Rajasthan	3.028125
8	Uttar Pradesh	3.3978571428571427
9	Uttarakhand	2.022307692307692

<Chart>



<Query on the table with the chosen format such as orc>

```
#> Select state_name,CORR_FERT_MORT,
CASE WHEN CORR_FERT_MORT > 0 then "POSITIVE ASSOSCIATION"
 WHEN CORR_FERT_MORT =0 then "NO ASSOSCIATION"
 WHEN CORR_FERT_MORT <0 then "NEGATIVE ASSOSCIATION"
END AS CORRELATION_INDICATOR FROM
(select
state_name,CORR(LL_Total_Fertility_Rate_Total,YY_Under_Five_Mortality_Rate_U5MR_Total_Perso
n) AS
CORR_FERT_MORT
from key_indicator_districtwise_ext_orc group by state_name )A
```

<Screenshot of the result>

	state_name	corr_fert_mort	correlation_indicator
1	Assam	0.3915829744764518	POSITIVE ASSOSCIATION
2	Bihar	0.7233339695538527	POSITIVE ASSOSCIATION
3	Chhattisgarh	0.4551421203097001	POSITIVE ASSOSCIATION
4	Jharkhand	0.7936967288511909	POSITIVE ASSOSCIATION
5	Madhya Pradesh	0.7051529438563544	POSITIVE ASSOSCIATION
6	Odisha	0.3116788576691367	POSITIVE ASSOSCIATION
7	Rajasthan	0.5992209550552275	POSITIVE ASSOSCIATION
8	Uttar Pradesh	0.6297529969287118	POSITIVE ASSOSCIATION
9	Uttarakhand	0.8430609600364916	POSITIVE ASSOSCIATION

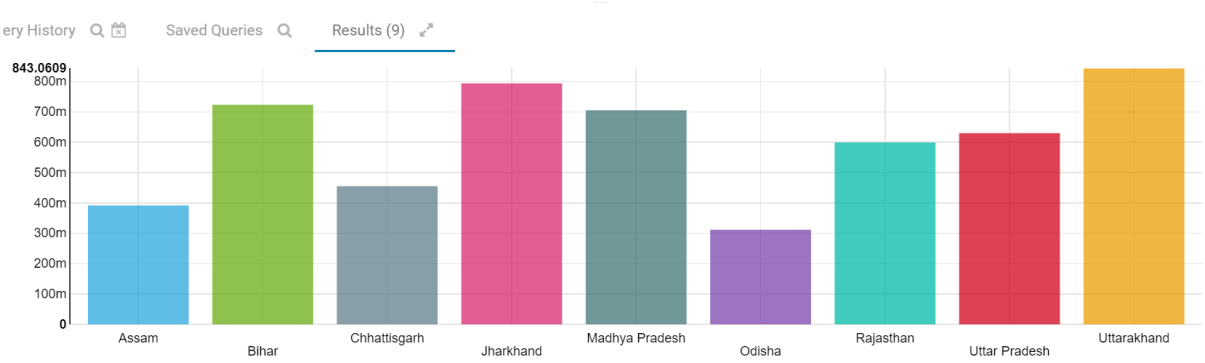
<Query on the Hive-Hbase integrated table>

```
#> Select state_name,CORR_FERT_MORT,
CASE WHEN CORR_FERT_MORT > 0 then "POSITIVE ASSOSCIATION"
 WHEN CORR_FERT_MORT =0 then "NO ASSOSCIATION"
 WHEN CORR_FERT_MORT <0 then "NEGATIVE ASSOSCIATION"
END AS CORRELATION_INDICATOR FROM
(select
state_name,CORR(LL_Total_Fertility_Rate_Total,YY_Under_Five_Mortality_Rate_U5MR_Total_Perso
n) AS CORR_FERT_MORT
from key_indicator_districtwise_ext_hive_hbase group by state_name )A
```

<Screenshot of the result>

	state_name	corr_fert_mort	correlation_indicator
1	Assam	0.39158297447645185	POSITIVE ASSOSCIATION
2	Bihar	0.7233339695538527	POSITIVE ASSOSCIATION
3	Chhattisgarh	0.4551421203097001	POSITIVE ASSOSCIATION
4	Jharkhand	0.7936967288511909	POSITIVE ASSOSCIATION
5	Madhya Pradesh	0.7051529438563545	POSITIVE ASSOSCIATION
6	Odisha	0.3116788576691367	POSITIVE ASSOSCIATION
7	Rajasthan	0.5992209550552275	POSITIVE ASSOSCIATION
8	Uttar Pradesh	0.6297529969287118	POSITIVE ASSOSCIATION
9	Uttarakhand	0.8430609600364916	POSITIVE ASSOSCIATION

<Chart>



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

<Query on the table with the chosen format such as orc>

#> WITH A as (select State_Name,state_district_name,AA_Population_Total/AA_Households_Total AS POPULATION_PER_HOUSEHOLD from key_indicator_districtwise_ext_ORC) SELECT State_Name,state_district_name,POPULATION_PER_HOUSEHOLD from (select State_Name,state_district_name,POPULATION_PER_HOUSEHOLD, ROW_NUMBER() OVER(PARTITION BY State_Name ORDER BY POPULATION_PER_HOUSEHOLD DESC) AS RANK from A) B where B.RANK IN (1,2)

<Screenshot of the result>

```
WITH A as (select State_Name,state_district_name,AA_Population_Total/AA_Households_Total AS
POPULATION_PER_HOUSEHOLD
from key_indicator_districtwise_ext_ORC )
SELECT State_Name,state_district_name,POPULATION_PER_HOUSEHOLD
from (select State_Name,state_district_name,POPULATION_PER_HOUSEHOLD,
ROW_NUMBER() OVER( PARTITION BY State_Name ORDER BY POPULATION_PER_HOUSEHOLD DESC) AS RANK
from A ) B where B.RANK IN (1,2)
```

```
INFO  : Total MapReduce CPU Time Spent: 4 seconds 340 msec
INFO  : Completed executing command(queryId=hive_20190715085353_72e0386d-c9c0-473f-a883-ea6f801ffb69); Time taken: 24.731 seconds
INFO  : OK
```

	state_name	state_district_name	population_per_household
1	Assam	Dhemaji	5.2103445894620535
2	Assam	Marigaon	4.978445126406547
3	Bihar	Gopalganj	5.979195301761839
4	Bihar	Nawada	5.944978455419291
5	Chhattisgarh	Durg	4.716408016844732
6	Chhattisgarh	Rajnandgaon	4.651162790697675
7	Jharkhand	Kodarma	5.868167462952465
8	Jharkhand	Giridih	5.787106964805766
9	Madhya Pradesh	Jhabua	5.5903925014645575
10	Madhya Pradesh	Sehore	5.366774132372464
11	Odisha	Bhadrak	4.765950743055191
12	Odisha	Jajapur	4.494145867839397
13	Rajasthan	Dhaulpur	5.810972222222222
14	Rajasthan	Barmer	5.629192111322455
15	Uttar Pradesh	Sant Ravidas Nagar (Bhadohi)	6.210831290394473
16	Uttar Pradesh	Baghpat	6.11956799591002
17	Uttarakhand	Udham Singh Nagar	5.1164532900989546
18	Uttarakhand	Nainital	4.748913659550349

<Query on the Hive-Hbase integrated table>

#> WITH A as (select State_Name,state_district_name,AA_Population_Total/AA_Households_Total AS POPULATION_PER_HOUSEHOLD from key_indicator_districtwise_ext_hive_hbase) SELECT State_Name,state_district_name,POPULATION_PER_HOUSEHOLD from (select State_Name,state_district_name,POPULATION_PER_HOUSEHOLD, ROW_NUMBER() OVER(PARTITION BY State_Name ORDER BY POPULATION_PER_HOUSEHOLD DESC) AS RANK from A) B where B.RANK IN (1,2)

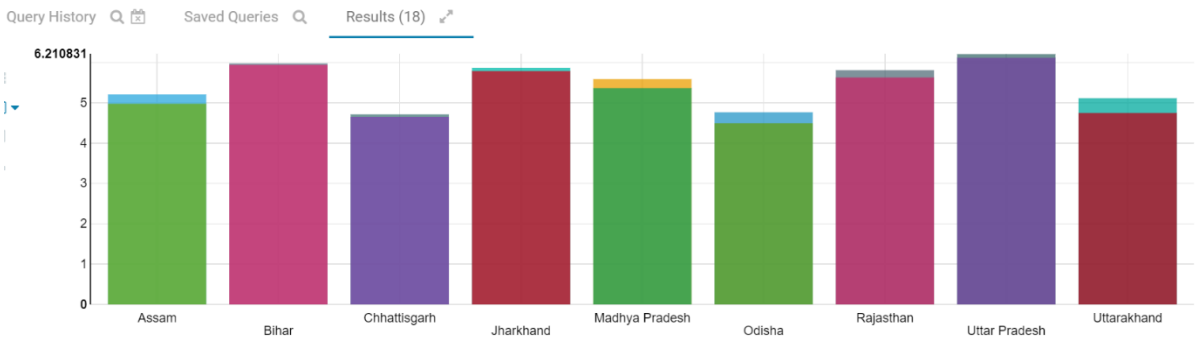
<Screenshot of the result>

```
WITH A as (select State_Name,state_district_name,AA_Population_Total/AA_Households_Total AS
POPULATION_PER_HOUSEHOLD
from key_indicator_districtwise_ext_hive_hbase )
SELECT State_Name,state_district_name,POPULATION_PER_HOUSEHOLD
from (select State_Name,state_district_name,POPULATION_PER_HOUSEHOLD,
ROW_NUMBER() OVER( PARTITION BY State_Name ORDER BY POPULATION_PER_HOUSEHOLD DESC) AS RANK
 from A ) B where B.RANK IN (1,2)
```

```
INFO  : Total MapReduce CPU Time Spent: 6 seconds 450 msec
INFO  : Completed executing command(queryId=hive_20190715085656_84a79f76-d654-4cb2-bc99-1622a6f3334b); Time taken: 38.002 seconds
INFO  : OK
```

	state_name	state_district_name	population_per_household
1	Assam	Dhemaji	5.2103445894620535
2	Assam	Marigaon	4.978445126406547
3	Bihar	Gopalganj	5.979195301761839
4	Bihar	Nawada	5.944978455419291
5	Chhattisgarh	Durg	4.716408016844732
6	Chhattisgarh	Rajnandgaon	4.651162790697675
7	Jharkhand	Kodarma	5.868167462952465
8	Jharkhand	Giridih	5.787106964805766
9	Madhya Pradesh	Jhabua	5.5903925014645575
10	Madhya Pradesh	Sehore	5.366774132372464
11	Odisha	Bhadrak	4.765950743055191
12	Odisha	Jajapur	4.494145867839397
13	Rajasthan	Dhaulpur	5.810972222222222
14	Rajasthan	Barmer	5.629192111322455
15	Uttar Pradesh	Sant Ravidas Nagar (Bhadohi)	6.210831290394473
16	Uttar Pradesh	Baghpat	6.11956799591002
17	Uttarakhand	Udham Singh Nagar	5.1164532900989546
18	Uttarakhand	Nainital	4.748913659550349

<Chart>



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

<Query on the table with the chosen format such as orc>

#> SELECT State_Name,state_district_name,sex_ratio from (select State_Name,state_district_name,CC_Sex_Ratio_All_Ages_Total AS SEX_RATIO, ROW_NUMBER() OVER(PARTITION BY State_Name ORDER BY CC_Sex_Ratio_All_Ages_Total) AS RANK from key_indicator_districtwise_ext_ORC) A where A.RANK IN (1,2)

<Screenshot of the result>

```
SELECT State_Name,state_district_name,sex_ratio
from (select State_Name,state_district_name,CC_Sex_Ratio_All_Ages_Total AS SEX_RATIO,
ROW_NUMBER() OVER( PARTITION BY State_Name ORDER BY CC_Sex_Ratio_All_Ages_Total) AS RANK
from key_indicator_districtwise_ext_ORC ) A where A.RANK IN (1,2)
```

```
INFO  : Total MapReduce CPU Time Spent: 4 seconds 70 msec
INFO  : Completed executing command(queryId=hive_20190715085959_0dfdbda1-ae9d-4c62-8c1b-b4d4d3c39199); Time taken: 26.193 seconds
INFO  : OK
```

	state_name	state_district_name	sex_ratio
1	Assam	Kamrup	925
2	Assam	North Cachar Hills	941
3	Bihar	Pashchim Champaran	894
4	Bihar	Khagaria	900
5	Chhattisgarh	Koriya	937.3
6	Chhattisgarh	Bilaspur	948.43
7	Jharkhand	Dhanbad	913
8	Jharkhand	Bokaro	917
9	Madhya Pradesh	Morena	833.13
10	Madhya Pradesh	Datia	852.12
11	Odisha	Sonapur	941
12	Odisha	Jharsuguda	944
13	Rajasthan	Karauli	837
14	Rajasthan	Dhaulpur	838
15	Uttar Pradesh	Gautam Buddha Nagar	836.82
16	Uttar Pradesh	Shahjahanpur	853.67
17	Uttarakhand	Haridwar	884.93
18	Uttarakhand	Udham Singh Nagar	914.31

<Query on the Hive-Hbase integrated table>

#> SELECT State_Name,state_district_name,sex_ratio from (select State_Name,state_district_name,CC_Sex_Ratio_All_Ages_Total AS SEX_RATIO, ROW_NUMBER() OVER(PARTITION BY State_Name ORDER BY CC_Sex_Ratio_All_Ages_Total) AS RANK from key_indicator_districtwise_ext_hive_hbase) A where A.RANK IN (1,2)

<Screenshot of the result>

```
SELECT State_Name,state_district_name,sex_ratio
from (select State_Name,state_district_name,CC_Sex_Ratio_All_Ages_Total AS SEX_RATIO,
ROW_NUMBER() OVER( PARTITION BY State_Name ORDER BY CC_Sex_Ratio_All_Ages_Total) AS RANK
 from key_indicator_districtwise_ext_hive_hbase ) A where A.RANK IN (1,2)
```

```
INFO  : The url to track the job: http://ip-10-0-0-153.ec2.internal:8088/proxy/application_1563169911433_0024/
INFO  : Starting Job = job_1563169911433_0024, Tracking URL = http://ip-10-0-0-153.ec2.internal:8088/proxy/application_1563169911433_0024/
INFO  : Kill Command = /opt/cloudera/parcels/CDH-5.15.1-1.cdh5.15.1.p0.4/lib/hadoop/bin/hadoop job  -kill job_1563169911433_0024
```

	state_name	state_district_name	sex_ratio
1	Assam	Kamrup	925
2	Assam	North Cachar Hills	941
3	Bihar	Pashchim Champaran	894
4	Bihar	Khagaria	900
5	Chhattisgarh	Koriya	937.3
6	Chhattisgarh	Bilaspur	948.43
7	Jharkhand	Dhanbad	913
8	Jharkhand	Bokaro	917
9	Madhya Pradesh	Morena	833.13
10	Madhya Pradesh	Datia	852.12
11	Odisha	Sonapur	941
12	Odisha	Jharsuguda	944
13	Rajasthan	Karauli	837
14	Rajasthan	Dhaulpur	838
15	Uttar Pradesh	Gautam Buddha Nagar	836.82
16	Uttar Pradesh	Shahjahanpur	853.67
17	Uttarakhand	Haridwar	884.93
18	Uttarakhand	Udham Singh Nagar	914.31

<Chart>