# Hive and HBase Integration Example

# Step 1: Create an HBase Table

1. Open the HBase Shell:

hbase shell

2. Create the HBase Table:

create 'grades', 'info'

3. Verify the Table:

list

# Step 2: Add Data to the HBase Table

1. Insert Data into the HBase Table:

put 'grades', '123-45-6789', 'info:last\_name', 'Alfalfa'  
put 'grades', '123-45-6789', 'info:first\_name', 'Aloysius'  
put 'grades', '123-45-6789', 'info:test1', '40'  
put 'grades', '123-45-6789', 'info:test2', '90'  
put 'grades', '123-45-6789', 'info:test3', '100'  
put 'grades', '123-45-6789', 'info:test4', '83'  
put 'grades', '123-45-6789', 'info:final\_score', '49'  
put 'grades', '123-45-6789', 'info:grade', 'D-'

2. Verify the Data:

scan 'grades'

# Step 3: Create a Hive Table to Map to the HBase Table

1. Open Hive Shell:

hive

2. Create Hive External Table:

CREATE EXTERNAL TABLE hive\_grades (  
 ssn STRING,  
 last\_name STRING,  
 first\_name STRING,  
 test1 STRING,  
 test2 STRING,  
 test3 STRING,  
 test4 STRING,  
 final\_score STRING,  
 grade STRING  
)  
STORED BY 'org.apache.hadoop.hive.hbase.HBaseStorageHandler'  
WITH SERDEPROPERTIES (  
 "hbase.columns.mapping" = ":key,info:last\_name,info:first\_name,info:test1,info:test2,info:test3,info:test4,info:final\_score,info:grade"  
)  
TBLPROPERTIES ("hbase.table.name" = "grades");

# Step 4: Query the Hive Table

1. Query the Data:

SELECT \* FROM hive\_grades;