

# STUDENT TABLES IN HIVE:

Create student1.txt and student2.txt as follows:

student1.txt:

```
1,John Smith,Computer Science
2,Jane Doe,Electrical Engineering
3,Michael Johnson,Mechanical Engineering
4,Sarah Williams,Chemistry
5,David Lee,Physics
6,Emily Brown,Mathematics
7,Robert Davis,English Literature
8,Lisa Wilson,Business Administration
9,James Anderson,Psychology
10,Amy Taylor,History
```

student2.txt:

```
1,Programming,90
2,Electrical Circuits,75
3,Thermodynamics,88
4,Organic Chemistry,70
5,Quantum Mechanics,85
6,Calculus,82
7,English Literature,92
8,Management,78
9,Psychological Disorders,77
10,World History,83
```

## CREATE TABLES :

```
hive> CREATE TABLE student1(
> STUDENT_ID INT,
> STUDENT_NAME STRING,
> STUDENT_BRANCH STRING
> )
> ROW FORMAT DELIMITED FIELDS TERMINATED BY ',';
```

OK

Time taken: 0.07 seconds

```
hive> LOAD DATA LOCAL INPATH
> '/home/akansha/student1.txt'
> INTO TABLE student1;
```

Loading data to table default.student1

OK

Time taken: 0.22 seconds

```
hive> select * from student1;
```

OK

```
1 John Smith Computer Science
2 Jane Doe Electrical Engineering
3 Michael Johnson Mechanical Engineering
4 Sarah Williams Chemistry
5 David Lee Physics
6 Emily Brown Mathematics
7 Robert Davis English Literature
8 Lisa Wilson Business Administration
9 James Anderson Psychology
10 Amy Taylor History
```

Time taken: 0.157 seconds, Fetched: 10 row(s)

hive>

```
hive> CREATE TABLE student2 (
```

```
> STUDENT_ID INT,
```

```
> SUBJECT STRING,
```

```
> MARKS INT
```

```
> )
```

```
> ROW FORMAT DELIMITED FIELDS TERMINATED BY ',';
```

OK

Time taken: 0.109 seconds

```
hive> LOAD DATA LOCAL INPATH
```

```
> '/home/akansha/student2.txt'
```

```
> INTO TABLE student2;
```

Loading data to table default.student2

OK

Time taken: 0.656 seconds

```
hive> select * from student2;
```

OK

```
1 Programming 90
2 Electrical Circuits 75
3 Thermodynamics 88
4 Organic Chemistry 70
5 Quantum Mechanics 85
6 Calculus 82
7 English Literature 92
8 Management 78
9 Psychological Disorders 77
10 World History 83
```

Time taken: 0.143 seconds, Fetched: 10 row(s)

hive>

## Perform JOIN:

```
hive> SELECT s.STUDENT_ID, s.STUDENT_NAME, s.STUDENT_BRANCH, m.SUBJECT, m.MARKS
```

```
> FROM student1 s
```

```
> JOIN student2 m ON s.STUDENT_ID = m.STUDENT_ID;
```

Query ID = akansha\_20230528042141\_536876ae-3dca-443d-85d5-a44a9a157cdc

Total jobs = 1

2023-05-28 04:21:48 Dump the side-table for tag: 1 with group count: 10 into file:  
file:/tmp/hive/java/akansha/1ce77038-0521-49ca-8952-374c7ab05d69/hive\_2023-05-28\_04-21-41\_267\_280776610738345637-1/-local-10004/HashTable-Stage-3/MapJoin-mapfile11--.hashtable

Execution completed successfully

MapredLocal task succeeded

Launching Job 1 out of 1

Number of reduce tasks is set to 0 since there's no reduce operator

Starting Job = job\_1685219240726\_0008, Tracking URL =

http://akansha-VirtualBox:8088/proxy/application\_1685219240726\_0008/

Kill Command = /home/akansha/hadoop-3.2.4/bin/mapred job -kill

job\_1685219240726\_0008

Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0

2023-05-28 04:21:56,130 Stage-3 map = 0%, reduce = 0%

2023-05-28 04:22:05,654 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 4.54 sec

MapReduce Total cumulative CPU time: 4 seconds 540 msec

Ended Job = job\_1685219240726\_0008

MapReduce Jobs Launched:

Stage-Stage-3: Map: 1 Cumulative CPU: 4.54 sec HDFS Read: 9828 HDFS Write: 697  
SUCCESS

Total MapReduce CPU Time Spent: 4 seconds 540 msec

OK

1	John Smith	Computer Science	Programming	90
2	Jane Doe	Electrical Engineering	Electrical Circuits	75
3	Michael Johnson	Mechanical Engineering	Thermodynamics	88
4	Sarah Williams	Chemistry	Organic Chemistry	70
5	David Lee	Physics	Quantum Mechanics	85
6	Emily Brown	Mathematics	Calculus	82
7	Robert Davis	English Literature	English Literature	92
8	Lisa Wilson	Business Administration	Management	78
9	James Anderson	Psychology	Psychological Disorders	77
10	Amy Taylor	History	World History	83

Time taken: 25.54 seconds, Fetched: 10 row(s)

hive>

```
hive> SELECT s.STUDENT_ID, s.STUDENT_NAME, s.STUDENT_BRANCH, m.SUBJECT, m.MARKS
```

```
> FROM student1 s
```

```
> JOIN student2 m ON s.STUDENT_ID = m.STUDENT_ID
```

```
> WHERE m.MARKS > 80;
```

Query ID = akansha\_20230528042552\_9e8bedb8-3738-4a04-b983-4770d3f034f7  
 Total jobs = 1  
 2023-05-28 04:25:59 End of local task; Time Taken: 1.547 sec.  
 Execution completed successfully  
 MapredLocal task succeeded  
 Launching Job 1 out of 1  
 Number of reduce tasks is set to 0 since there's no reduce operator  
 Starting Job = job\_1685219240726\_0009, Tracking URL =  
 http://akansha-VirtualBox:8088/proxy/application\_1685219240726\_0009/  
 Kill Command = /home/akansha/hadoop-3.2.4/bin/mapred job -kill  
 job\_1685219240726\_0009  
 Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0  
 2023-05-28 04:26:08,288 Stage-3 map = 0%, reduce = 0%  
 2023-05-28 04:26:14,572 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 2.81 sec  
 MapReduce Total cumulative CPU time: 2 seconds 810 msec  
 Ended Job = job\_1685219240726\_0009  
 MapReduce Jobs Launched:  
 Stage-Stage-3: Map: 1 Cumulative CPU: 2.81 sec HDFS Read: 9837 HDFS Write: 437  
 SUCCESS  
 Total MapReduce CPU Time Spent: 2 seconds 810 msec  
 OK  

1	John Smith	Computer Science	Programming	90
3	Michael Johnson	Mechanical Engineering	Thermodynamics	88
5	David Lee	Physics	Quantum Mechanics	85
6	Emily Brown	Mathematics	Calculus	82
7	Robert Davis	English Literature	English Literature	92
10	Amy Taylor	History	World History	83

 Time taken: 22.88 seconds, Fetched: 6 row(s)  
 hive>

hive> select \* from student2 where MARKS>80;

OK  

1	Programming	90
3	Thermodynamics	88
5	Quantum Mechanics	85
6	Calculus	82
7	English Literature	92
10	World History	83

 Time taken: 0.159 seconds, Fetched: 6 row(s)  
 hive>