

```
-- Student Number: 10241485
-- Name: Jeslyn Ho Ka Yan
-- Date: 13 Oct 2024
-- Assignment 2, Task 3
```

-- Start Beeline: Open the Beeline command line tool for Hive.

```
bigdata@bigdata-VirtualBox:~$ $HIVE_HOME/bin/beeline
Beeline version 2.1.1 by Apache Hive
```

-- Connect to Hive: Connect to the Hive server running on your local machine

```
beeline> !connect jdbc:hive2://localhost:10000
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/usr/share/apache-hive-2.1.1-bin/lib/log4j-slf4j-impl-2.4.1.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/share/hadoop-2.7.3/share/hadoop/common/lib/slf4j-log4j12-1.7.10.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.apache.logging.slf4j.Log4jLoggerFactory]
Connecting to jdbc:hive2://localhost:10000
Enter username for jdbc:hive2://localhost:10000:
Enter password for jdbc:hive2://localhost:10000:
Connected to: Apache Hive (version 2.1.1)
Driver: Hive JDBC (version 2.1.1)
24/10/29 19:26:31 [main]: WARN jdbc.HiveConnection: Request to set autoCommit to false; Hive does not support autoCommit=false.
Transaction isolation: TRANSACTION_REPEATABLE_READ
```

-- Create Database: Make a new database called 'a2'.

```
0: jdbc:hive2://localhost:10000> create database a2;
No rows affected (0.43 seconds)
```

-- Show Databases: List all existing databases to check if 'a2' was created.

```
0: jdbc:hive2://localhost:10000> show databases;
```

```
+-----+
| database_name |
+-----+
| a2             |
| default        |
| isit312        |
+-----+
```

```
3 rows selected (0.314 seconds)
```

-- Use Database: Switch to using the 'a2' database.

```
0: jdbc:hive2://localhost:10000> use a2;
No rows affected (0.448 seconds)
```

-- Run HQL Script: Execute a script of Hive commands stored in a file.

```
0: jdbc:hive2://localhost:10000> !run /home/bigdata/ISIT312/A2/Task3/solution3.hql
```

```
>>> -- Student Number: 10241485
>>> -- Name: Jeslyn Ho Ka Yan
>>> -- Date: 13 Oct 2024
>>> -- Assignment 2, Task
>>>
>>>
>>> -- Step 1: Create an internal table in Hive
>>> create table student_evaluations (
  student_id INT,
  subjects MAP<STRING, INT>
)
STORED AS TEXTFILE;
```

No rows affected (0.172 seconds)

>>>

>>> -- Step 2: Insert sample data into the table

>>> INSERT INTO student_evaluations

SELECT 1111, MAP('CSIT111', 1, 'CSIT121', 23, 'CSIT101', 50, 'CSIT235', 99, 'ISIT312', 2) UNION ALL

SELECT 1112, MAP('CSIT101', 56, 'CSIT111', 78, 'CSIT115', 10, 'ISIT312', 5) UNION ALL

SELECT 1113, MAP('CSIT121', 76, 'CSIT235', 87, 'ISIT312', 49) UNION ALL

SELECT 1114, MAP('CSIT111', 50, 'ISIT312', 45) UNION ALL

SELECT 1115, MAP('ISIT115', 67, 'CSCI235', 45, 'CSIT127', 56) UNION ALL

SELECT 1118, MAP('CSIT127', 48, 'CSIT115', 88) UNION ALL

SELECT 1119, MAP('CSCI235', 100, 'ISIT115', 80, 'CSIT121', 75) UNION ALL

SELECT 1120, MAP('CSIT101', 45, 'CSIT111', 89);

WARNING: Hive-on-MR is deprecated in Hive 2 and may not be available in the future versions. Consider using a different execution engine (i.e. spark, tez) or using Hive 1.X releases.

No rows affected (33.67 seconds)

>>>

>>> -- Step 3: Select statement to list the contents of the table

>>> SELECT student_id, subjects

FROM student_evaluations

LIMIT 5;

student_id	subjects
1111	{"CSIT121":23,"CSIT111":1,"CSIT101":50,"CSIT235":99,"ISIT312":2}
1112	{"CSIT111":78,"CSIT101":56,"CSIT115":10,"ISIT312":5}
1113	{"CSIT121":76,"CSIT235":87,"ISIT312":49}
1114	{"CSIT111":50,"ISIT312":45}
1115	{"ISIT115":67,"CSCI235":45,"CSIT127":56}

+

5 rows selected (0.526 seconds)

Screenshot

```
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+-----+
| database_name |
+-----+
| a2             |
| default       |
| isit312       |
+-----+
3 rows selected (0.314 seconds)
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No rows affected (0.448 seconds)
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+-----+
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+-----+
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0: jdbc:hive2://localhost:10000> █
```