-- 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

A screenshot of a computer program

Description automatically generated

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Description automatically generated