# Setup dummy Databse into MYSQL

1.  Open putty again -> login you account username is maria_dev and password is hadoop
2.  We need to create Database :

    We can use mysql workbench or Terminal also

    Type : create database movielens;

    Using terminal
3.  Type: mysql -u root -p

4.  Type: show database;

5.  create/Import Database into mysql by using dummy Database. We will get dummy database from online for that we need to type following line

    | mysql> wget media.sundog-soft.com/hadoop/movielens.sql |

6.  Type: exit;
7.  You can see all scripts under movielens.sql by Typing : less movielens.sql
8.  login again

Type: mysql -u root -p

Password: password (or your database password)

| 9. Type: SET NAMES 'utf8'; |
| 10. Type: SET CHARACTER SET utf8; |

11. Type: use movielens;
12. Type: source movielens.sql;
13. You can see al tables under movielens table. you need to type following line.

    | -> show tables; |

# Import Data from SQL to HADOOP and HIVE

Import command is used to importing a table from relational databases to HDFS. In our case, we are going to import tables from MySQL databases to HDFS.

As you can see in the below image, we have employees table in employees database which we will be importing into HDFS.

login mysql using following line.

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Type :  -u root -p

password: password (or your database password)

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1.  Type following line
2.  We have to provide all permission to movielens database

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mysql> grant all privileges on  movielens.* to ' '@'localhost';

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```
mysql> grant all privileges on movielens.* to ''@'localhost';
Query OK, 0 rows affected (0.00 sec)
```

mysql> exit;

3.  The command for importing table is:

> Type: sqoop import  --connect jdbc:mysql://localhost/movielens --driver  com.mysql.jdbc.Driver --table movies  -m 1

4.  Goto AMbari -> Click on File View -> click on maria_dev directory   -> you can see imported data under movielens folder

5.  The command for importing table into hive :

> sqoop import --connect jdbc:mysql://localhost/movielens --driver com.mysql.jdbc.Driver --table movies -m 1 --hive-import

or we can define database , table name and where clause also

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sqoop import --connect jdbc:mysql://localhost/movielens --driver com.mysql.jdbc.Driver --table movies -m 1
--hive-database default
    --hive-table new_movies
    --where "id = '1'"
    --create-hive-table
    --fields-terminated-by '\t'
     --hive-import;

---

6.  Goto AMbari -> Click on File View -> click on maria_dev directory   -> you can see imported data under apps/hive/warehouse/movies

**Reference**

- https://hortonworks.com/blog/four-step-strategy-incremental-updates-hive/
- https://sqoop.apache.org/docs/1.4.2/SqoopUserGuide.html#_saved_jobs_and_incremental_imports

# Export into sql from hadoop

1. Open putty again -> login you account username is maria_dev and password is hadoop

2. Enter mysql -u root -p
    Password: password (or your database password)

3. Type: use movielens;

4. Create table new table in mysql:

   Type:  create table exported_movie( id INTEGER, title VARCHAR(255), releaseDate DATE);

5. Type : exit;
   Following link is responsible for Export Data into sql from hadoop

6. sqoop export --connect jdbc:mysql://localhost/movielens  -m 1 --driver
   com.mysql.jdbc.Driver --table exported_movie --export-dir
   /apps/hive/warehouse/movies --input-fields-terminated-by '\0001' ;