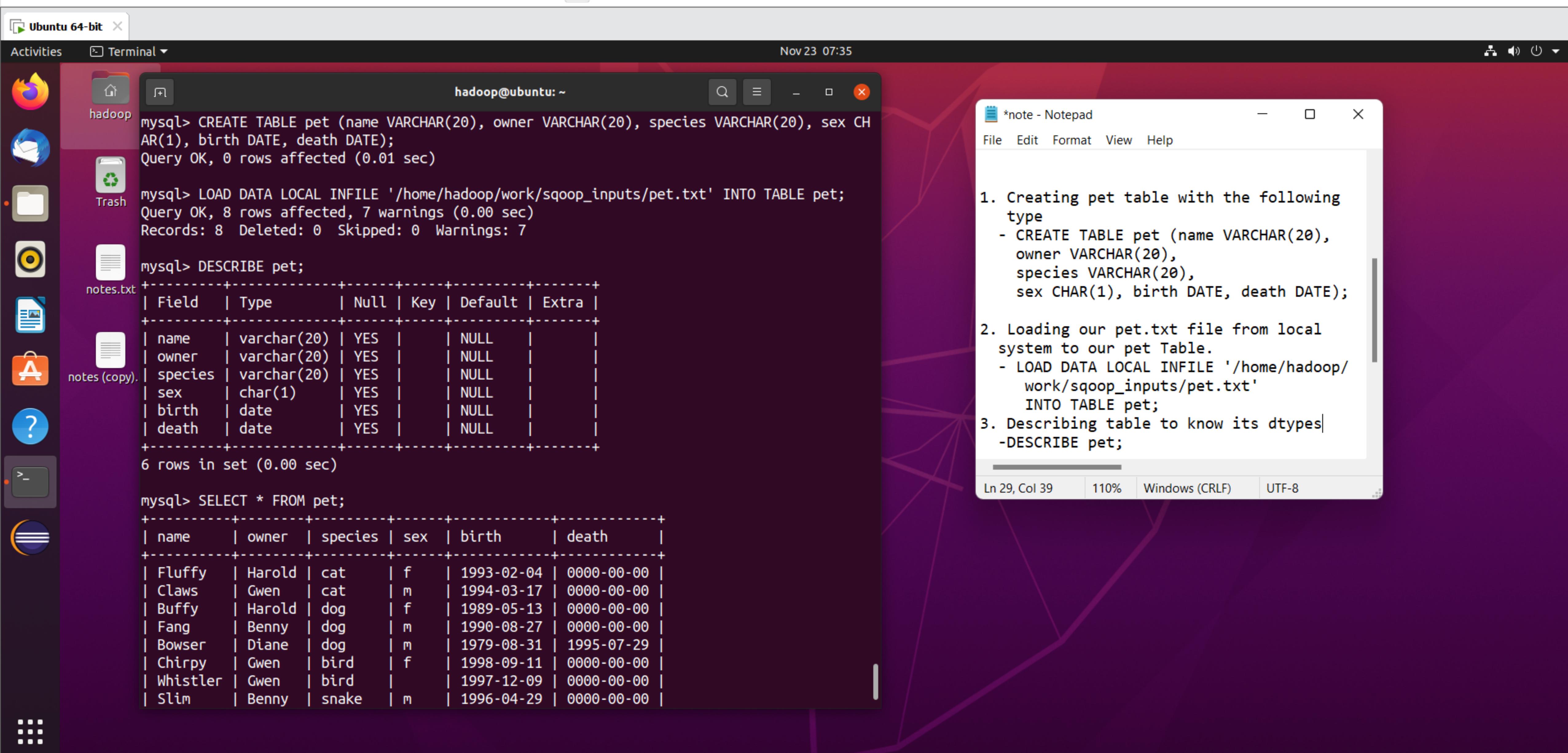


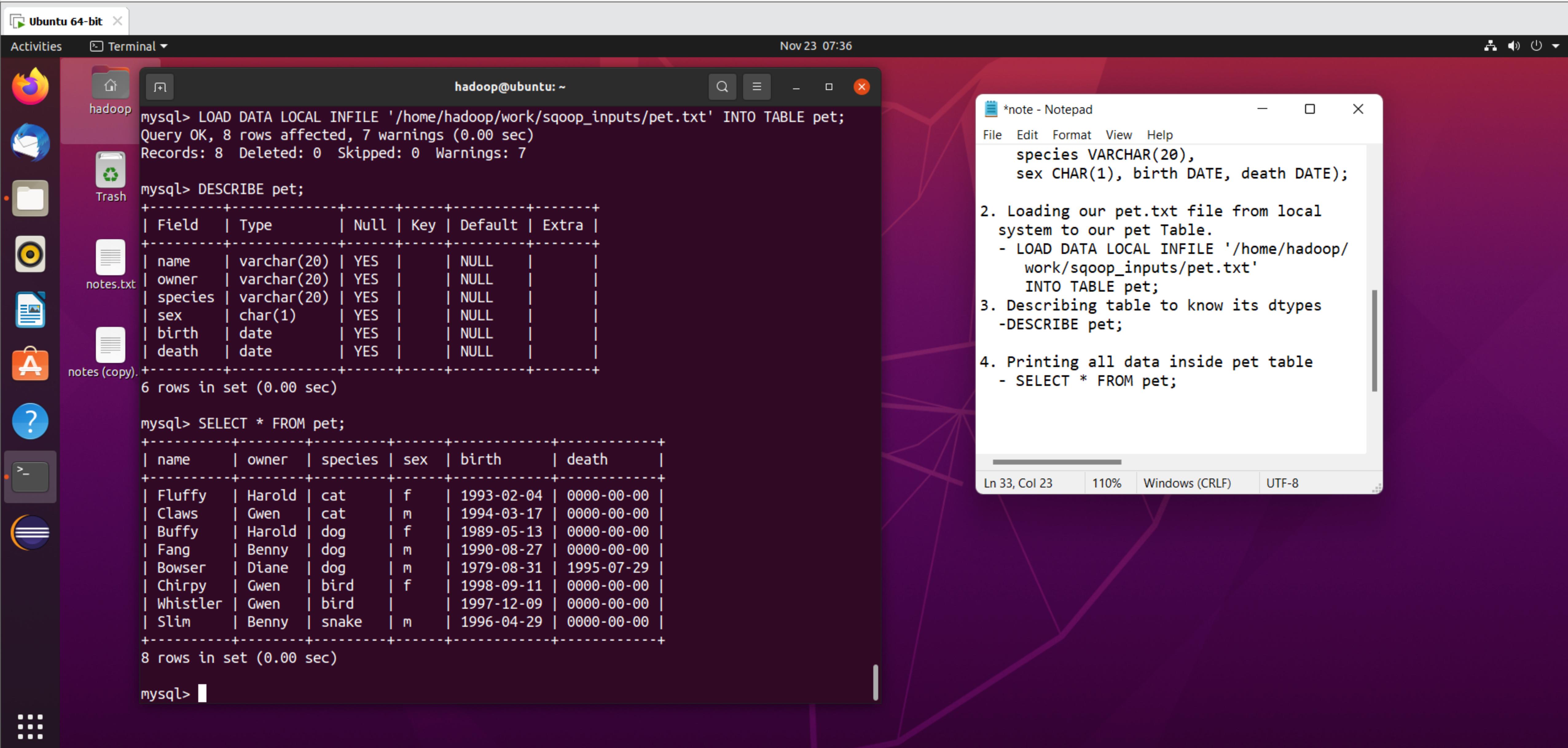
To direct input to this VM, move the mouse pointer inside or press Ctrl-



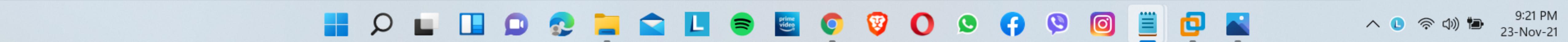


To direct input to this VM, move the mouse pointer inside or press Ctrl+Alt





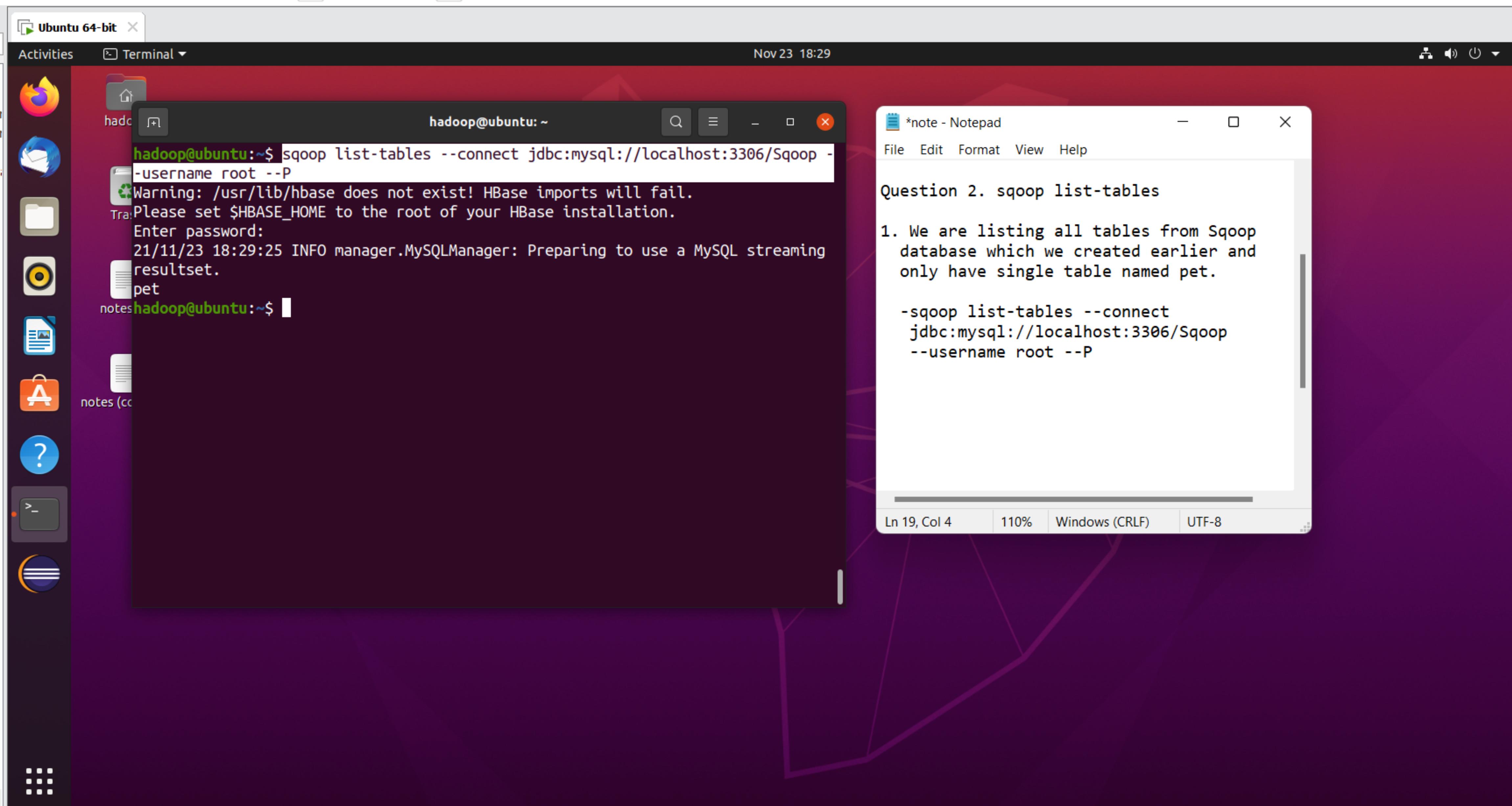
To direct input to this VM, move the mouse pointer inside or press Ctrl-.





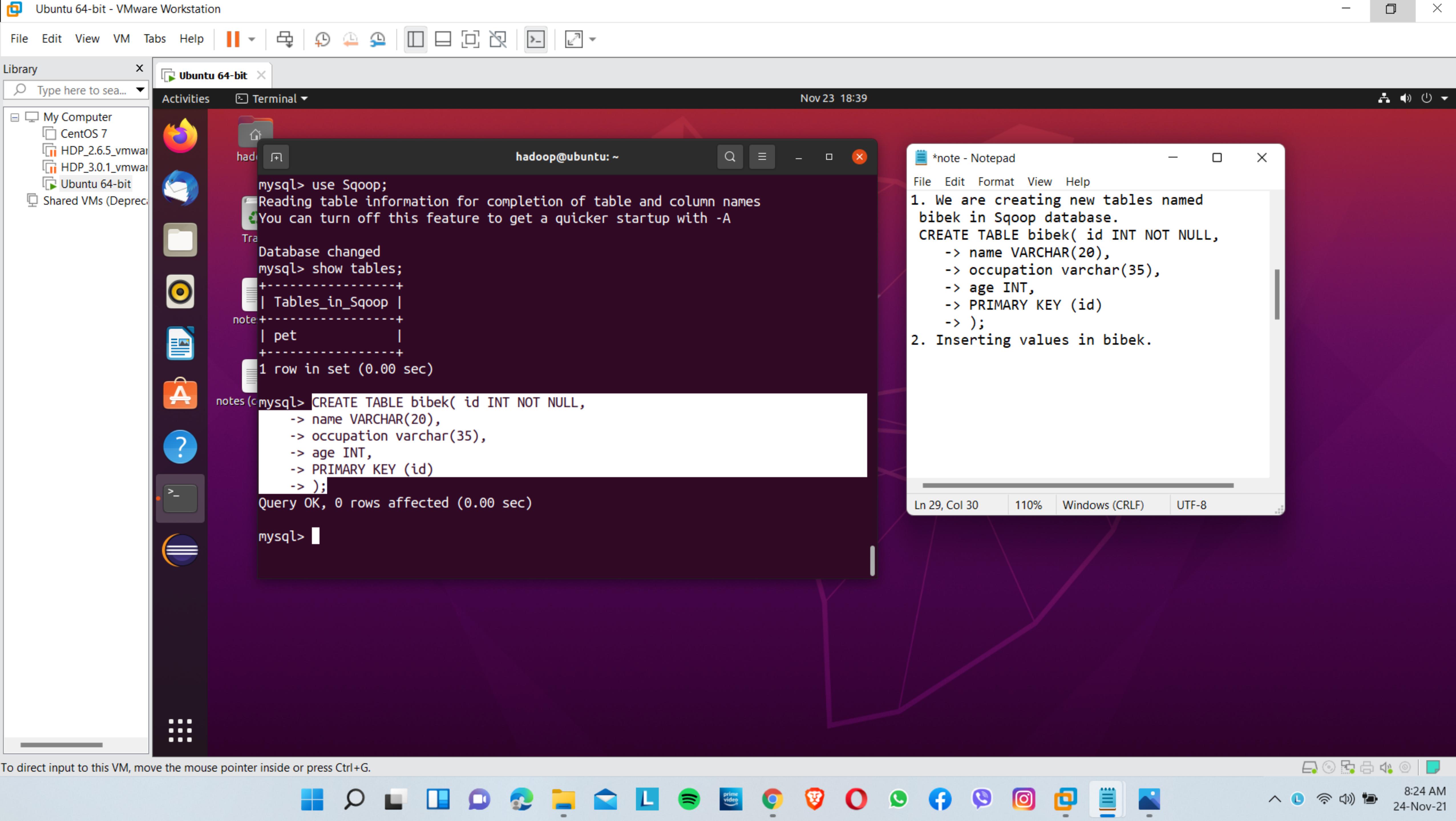
 Type here to see...

- My Computer
    - CentOS 7
    - HDP\_2.6.5\_vmw
    - HDP\_3.0.1\_vmw
    - Ubuntu 64-bit
  - Shared VMs (Depre)



To direct input to this VM, move the mouse pointer inside or press Ctrl-





Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help | || | | | | | | | | | | | | | | | |

Library X

Ubuntu 64-bit X

Activities Terminal Nov 23 18:43

hadoop@ubuntu: ~

```
mysql> CREATE TABLE bibek( id INT NOT NULL,
-> name VARCHAR(20),
-> occupation varchar(35),
-> age INT,
-> PRIMARY KEY (id)
-> );
Query OK, 0 rows affected (0.00 sec)

mysql>

mysql> INSERT INTO bibek VALUES(1, 'David Shah Shankhar',
-> 'Big Data Engineer',23);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO bibek VALUES(2, 'Bee Shah Shankhar', 'Data Engineer'
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO bibek VALUES(3, 'Bibek Shah Shankhar', 'Data Scientist',23);
Query OK, 1 row affected (0.00 sec)

mysql> select * from bibek;
+----+-----+-----+
| id | name           | occupation      | age   |
+----+-----+-----+
| 1  | David Shah Shankhar | Big Data Engineer | 23   |
| 2  | Bee Shah Shankhar | Data Engineer    | 23   |
| 3  | Bibek Shah Shankhar | Data Scientist   | 23   |
+----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

\*note - Notepad

File Edit Format View Help

1. We are creating new tables named bibek in Sqoop database.  
CREATE TABLE bibek( id INT NOT NULL,  
-> name VARCHAR(20),  
-> occupation varchar(35),  
-> age INT,  
-> PRIMARY KEY (id)  
-> );
2. Inserting values in bibek.  
-INSERT INTO bibek VALUES(1, 'David Shah  
-> 'Big Data Engineer',23);  
- INSERT INTO bibek VALUES(2, 'Bee Shah S  
-INSERT INTO bibek VALUES(3, 'Bibek Shah
3. Selecting all values from bibek table  
-SELECT \* FROM bibek;

Ln 37, Col 24 110% Windows (CRLF) UTF-8

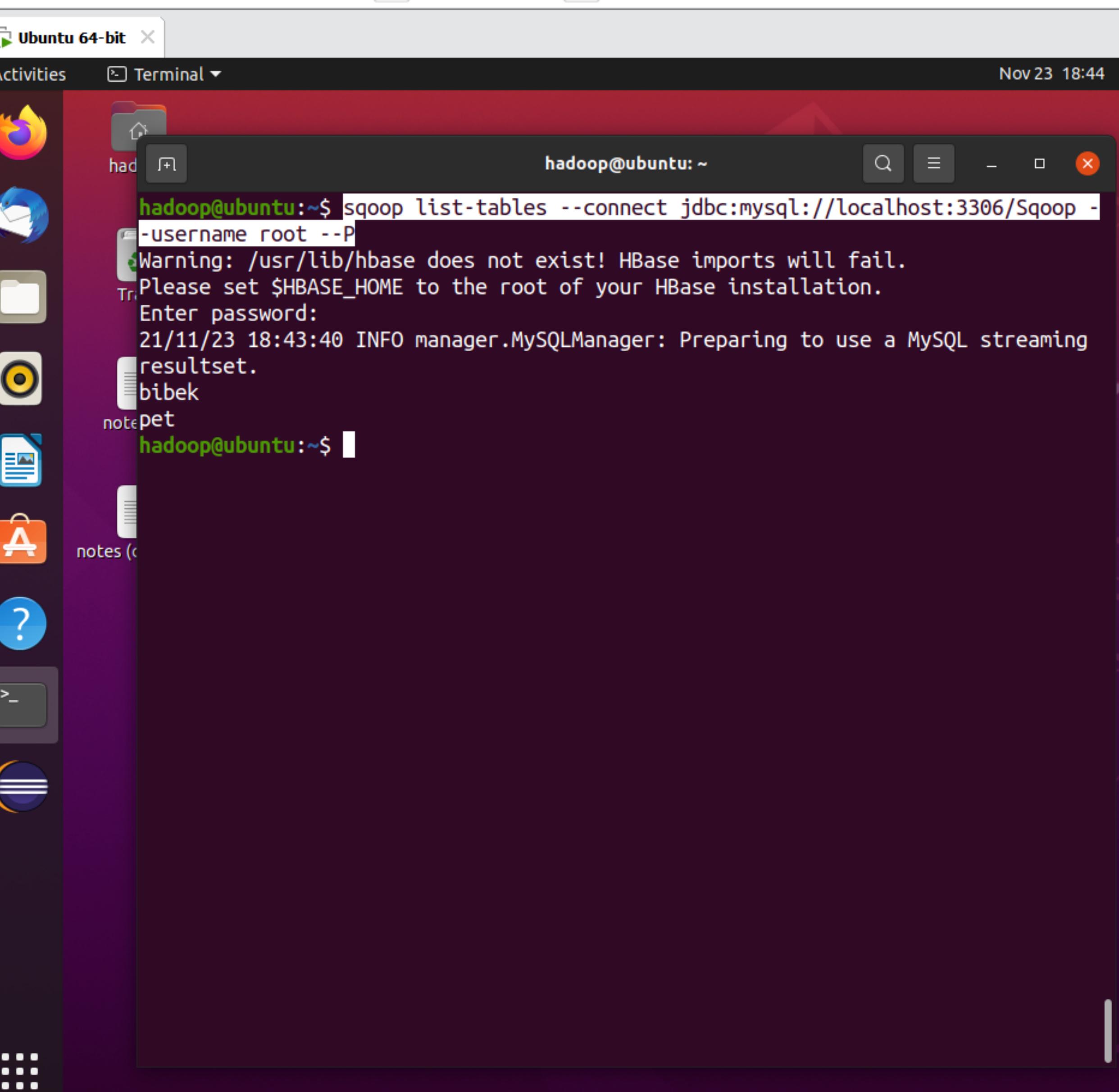
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.



 Type here to see...

-  My Computer
    -  CentOS 7
    -  HDP\_2.6.5\_vmware
    -  HDP\_3.0.1\_vmware
    -  Ubuntu 64-bit
  -  Shared VMs (Deprecated)

- ## Shared VMs (Deprecated)



Nov 23 18:4

\*note - Notepad

File Edit Format View Help

### Question 3. sqoop import-all-tables

1. We can see we have two tables in sqoop databases.

```
-sqoop list-tables  
--connect jdbc:mysql://localhost:3306/Sqoop  
--username root --P
```

In 53, Col 1 110% Windows (CBIE) UTE-8

Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help | || | | | | | | | | | |

Ubuntu 64-bit

Activities Terminal Nov 23 19:25

Browsing HDFS localhost:8020/ hadoop@ubuntu: ~

```
hadoop@ubuntu:~$ sqoop import-all-tables --connect jdbc:mysql://localhost:3306
/Sqoop --username root --P -m 1
Warning: /usr/lib/hbase does not exist! HBase imports will fail.
Please set $HBASE_HOME to the root of your HBase installation.
Enter password:
21/11/23 19:24:25 INFO manager.MySQLManager: Preparing to use a MySQL streaming resultset.
21/11/23 19:24:25 INFO tool.CodeGenTool: Beginning code generation
21/11/23 19:24:25 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `bibek` AS t LIMIT 1
21/11/23 19:24:25 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `bibek` AS t LIMIT 1
21/11/23 19:24:25 INFO orm.CompilationManager: HADOOP_MAPRED_HOME is /home/hadoop/work/hadoop-2.6.0
Note: /tmp/sqoop-hadoop/compile/850bf07623177a070166217679032d7d/bibek.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
21/11/23 19:24:25 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-hadoop/compile/850bf07623177a070166217679032d7d/bibek.jar
21/11/23 19:24:26 WARN manager.MySQLManager: It looks like you are importing from mysql.
21/11/23 19:24:26 WARN manager.MySQLManager: This transfer can be faster! Use the --direct
21/11/23 19:24:26 WARN manager.MySQLManager: option to exercise a MySQL-specific fast path.
21/11/23 19:24:26 INFO manager.MySQLManager: Setting zero DATETIME behavior to convertToNull (mysql)
21/11/23 19:24:26 INFO mapreduce.ImportJobBase: Beginning import of bibek
21/11/23 19:24:26 INFO Configuration.deprecation: mapred.jar is deprecated. Instead, use mapreduce.job.jar
21/11/23 19:24:26 INFO Configuration.deprecation: mapred.map.tasks is deprecated. Instead, use mapreduce.job.maps
```

Utilities \*note - Notepad

File Edit Format View Help

Question 3. sqoop import-all-tables

1. We can see we have two tables in sqoop databases.  
-sqoop list-tables  
--connect jdbc:mysql://localhost:3306/Sqoop  
--username root --P
2. We are importing all the tables from sqoop databases.  
- sqoop import-all-tables --connect jdbc:mysql://localhost:3306/Sqoop  
--username root --P -m 1

Ln 53, Col 28 110% Windows (CRLF) UTF-8

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.



Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help | || | | | | | | | | | |

Ubuntu 64-bit X

Activities Terminal ▾

Browsing HDFS localhost:8020/ +

localhost:50070/explorer.html#/user/hadoop

hadoop@ubuntu: ~

```
ccessfully
21/11/23 19:24:29 INFO mapreduce.Job: Counters: 23
  File System Counters
    FILE: Number of bytes read=7572
    FILE: Number of bytes written=17348692
    FILE: Number of read operations=0
    FILE: Number of large read operations=0
    FILE: Number of write operations=0
    HDFS: Number of bytes read=16675202
    HDFS: Number of bytes written=404
    HDFS: Number of read operations=409
    HDFS: Number of large read operations=0
    HDFS: Number of write operations=9
  Map-Reduce Framework
    Map input records=8
    Map output records=8
    Input split bytes=87
    Spilled Records=0
    Failed Shuffles=0
    Merged Map outputs=0
    GC time elapsed (ms)=0
    CPU time spent (ms)=0
    Physical memory (bytes) snapshot=0
    Virtual memory (bytes) snapshot=0
    Total committed heap usage (bytes)=222298112
  File Input Format Counters
    Bytes Read=0
  File Output Format Counters
    Bytes Written=284
21/11/23 19:24:29 INFO mapreduce.ImportJobBase: Transferred 404 bytes in 1.371
9 seconds (294.4896 bytes/sec)
21/11/23 19:24:29 INFO mapreduce.ImportJobBase: Retrieved 8 records.
hadoop@ubuntu:~$
```

\*note - Notepad

File Edit Format View Help

Question 3. sqoop import-all-tables

1. We can see we have two tables in sqoop databases.  
-sqoop list-tables  
--connect jdbc:mysql://localhost:3306/Sqoop  
--username root --P
2. We are importing all the tables from sqoop databases.  
- sqoop import-all-tables --connect  
jdbc:mysql://localhost:3306/Sqoop  
--username root --P -m 1
3. We can see that bibek and pig tables are stored in our hdfs from mysql.

KB	Ln 55, Col 37	110%	Windows (CRLF)	UTF-8
1	128 MB		ant-contrib-1.0b3.jar	
0	0 B		bibek	
0	0 B		pet	
0	0 B		pig_output_sales	

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.



Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help | || | | | | | | | | | |

Ubuntu 64-bit X

Activities Terminal ▾

Browsing HDFS x localhost:8020/ +

hadoop@ubuntu:~

```
hadoop@ubuntu:~$ sqoop import --connect jdbc:mysql://localhost:3306/Sqoop --username root --password hadoop --table pet -m 1 --target-dir /bibek/sqoop-pet-m
Warning: /usr/lib/hbase does not exist! HBase imports will fail.
Please set $HBASE_HOME to the root of your HBase installation.
21/11/23 19:28:55 WARN tool.BaseSqoopTool: Setting your password on the command-line is insecure. Consider using -P instead.
21/11/23 19:28:55 INFO manager.MySQLManager: Preparing to use a MySQL streaming resultset.
21/11/23 19:28:55 INFO tool.CodeGenTool: Beginning code generation
21/11/23 19:28:55 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `pet` AS t LIMIT 1
21/11/23 19:28:55 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `pet` AS t LIMIT 1
21/11/23 19:28:55 INFO orm.CompilationManager: HADOOP_MAPRED_HOME is /home/hadoop/work/hadoop-2.6.0
Note: /tmp/sqoop-hadoop/compile/426c0183c4691a59de250a64a0bc8143/pet.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
21/11/23 19:28:56 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-hadoop/compile/426c0183c4691a59de250a64a0bc8143/pet.jar
21/11/23 19:28:56 WARN manager.MySQLManager: It looks like you are importing from mysql.
21/11/23 19:28:56 WARN manager.MySQLManager: This transfer can be faster! Use the --direct
21/11/23 19:28:56 WARN manager.MySQLManager: option to exercise a MySQL-specific fast path.
21/11/23 19:28:56 INFO manager.MySQLManager: Setting zero DATETIME behavior to convertToNull (mysql)
21/11/23 19:28:56 INFO mapreduce.ImportJobBase: Beginning import of pet
21/11/23 19:28:56 INFO Configuration.deprecation: mapred.jar is deprecated. Instead, use mapreduce.job.jar
21/11/23 19:28:56 INFO Configuration.deprecation: madred.mad.tasks is deprecated
```

\*note - Notepad

File Edit Format View Help

### Question 4. sqoop import

1. We are going to import pet table only from the sqoop database and the file will be stored in our target directory named sqoop-pet-m

```
-sqoop import --connect
jdbc:mysql://localhost:3306/Sqoop
--username root --password hadoop
--table pet -m 1
--target-dir /bibek/sqoop-pet-m
```

Ln 69, Col 1 110% Windows (CRLF) UTF-8

2 KB 1 128 MB ant-contrib-1.0b3.jar

0 0 B bibek

0 0 B pet

0 0 B pig\_output\_sales

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.



9:15 AM  
24-Nov-21

Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help | || | | | | | | | | | |

Ubuntu 64-bit

Activities Terminal ▾ Nov 23 19:32

Browsing HDFS localhost:8020/

localhost:50070/explorer.html#/bibek/sqoop-pet-m

hadoop@ubuntu: ~

```
ccessfully
21/11/23 19:28:58 INFO mapreduce.Job: Counters: 23
  File System Counters
    FILE: Number of bytes read=3994
    FILE: Number of bytes written=8674646
    FILE: Number of read operations=0
    FILE: Number of large read operations=0
    FILE: Number of write operations=0
    HDFS: Number of bytes read=8337601
    HDFS: Number of bytes written=284
    HDFS: Number of read operations=202
    HDFS: Number of large read operations=0
    HDFS: Number of write operations=3
  Map-Reduce Framework
    Map input records=8
    Map output records=8
    Input split bytes=87
    Spilled Records=0
    Failed Shuffles=0
    Merged Map outputs=0
    GC time elapsed (ms)=0
    CPU time spent (ms)=0
    Physical memory (bytes) snapshot=0
    Virtual memory (bytes) snapshot=0
    Total committed heap usage (bytes)=228589568
  File Input Format Counters
    Bytes Read=0
  File Output Format Counters
    Bytes Written=284
21/11/23 19:28:58 INFO mapreduce.ImportJobBase: Transferred 284 bytes in 1.691
5 seconds (167.9009 bytes/sec)
21/11/23 19:28:58 INFO mapreduce.ImportJobBase: Retrieved 8 records.
hadoop@ubuntu:~$
```

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

Nov 23 19:32 Progress Utilities ▾

Go!

Size	Replication	Block Size	Name
0 B	1	128 MB	_SUCCESS
284 B	1	128 MB	part-m-00000

\*note - Notepad

File Edit Format View Help

Question 4. sqoop import

1. We are going to import pet table only from the sqoop database and the file will be stored in our target directory named sqoop-pet-m  

```
-sqoop import --connect
jdbc:mysql://localhost:3306/Sqoop
--username root --password hadoop
--table pet -m 1
--target-dir /bibek/sqoop-pet-m
```
2. We can see our targeted directory is automatically created

9:17 AM 24-Nov-21



Activities Terminal

Nov 23 19:35

hadoop@ubuntu: ~

```
hadoop@ubuntu:~$ cat /home/hadoop/work/sqoop_inputs/import.txt
#
# Options file for Sqoop import
#
# Specifies the tool being invoked
import
#
# Connect parameter and value
--connect
jdbc:mysql://localhost/Sqoop
#
# Username parameter and value
--username
root
#
# Username parameter and value
--password
hadoop
#
# Remaining options should be specified in the command line.
#
hadoop@ubuntu:~$
```

\*note - Notepad

File Edit Format View Help

Question 5. sqoop --options-file

1. We can see our option file using cat cmd.

- cat /home/hadoop/work/Sqoop\_inputs/import.txt

Ln 85, Col 27

110%

Windows (CRLF)

UTF-8

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.



9:20 AM

24-Nov-21

Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help | II | | | | | | | | | | |

Ubuntu 64-bit

Activities Terminal ▾ Nov 23 19:37

Browsing HDFS × localhost:8020/ +

localhost:50070/explorer.html#/bibek/sqoop-pet-m

hadoop@ubuntu: ~

```
#  
# Remaining options should be specified in the command line.  
#  
hadoop@ubuntu:~$ sqoop --options-file /home/hadoop/work/sqoop_inputs/import.txt --table pet --split-by name --target-dir /bibek/sqoop-pet-import  
Warning: /usr/lib/hbase does not exist! HBase imports will fail.  
Please set $HBASE_HOME to the root of your HBase installation.  
21/11/23 19:35:59 WARN tool.BaseSqoopTool: Setting your password on the command-line is insecure. Consider using -P instead.  
21/11/23 19:35:59 INFO manager.MySQLManager: Preparing to use a MySQL streaming resultset.  
21/11/23 19:35:59 INFO tool.CodeGenTool: Beginning code generation  
21/11/23 19:35:59 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `pet` AS t LIMIT 1  
21/11/23 19:35:59 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `pet` AS t LIMIT 1  
21/11/23 19:35:59 INFO orm.CompilationManager: HADOOP_MAPRED_HOME is /home/hadoop/work/hadoop-2.6.0  
Note: /tmp/sqoop-hadoop/compile/180500d5f3b0a1f0e1fd27ad67746454/pet.java uses or overrides a deprecated API.  
Note: Recompile with -Xlint:deprecation for details.  
21/11/23 19:35:59 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-hadoop/compile/180500d5f3b0a1f0e1fd27ad67746454/pet.jar  
21/11/23 19:35:59 WARN manager.MySQLManager: It looks like you are importing from mysql.  
21/11/23 19:35:59 WARN manager.MySQLManager: This transfer can be faster! Use the --direct  
21/11/23 19:35:59 WARN manager.MySQLManager: option to exercise a MySQL-specific fast path.  
21/11/23 19:35:59 INFO manager.MySQLManager: Setting zero DATETIME behavior to convertToNull (mysql)  
21/11/23 19:35:59 INFO mapreduce.ImportJobBase: Beginning import of pet
```

Progress Utilities ▾ \*note - Notepad

File Edit Format View Help

Question 5. sqoop --options-file

1. We can see our option file using cat cmd.

- cat /home/hadoop/work/Sqoop\_inputs/import.txt

2. We can import our already written code using option file while makes life easier as a developer

-sqoop --options-file /home/hadoop/work/sqoop\_inputs/import.txt  
--table pet  
--split-by name  
--target-dir /bibek/sqoop-pet-import

Size Replication

Size	Replication
0 B	1
284 B	1

Ln 90, Col 42 110% Windows (CRLF) UTF-8

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

9:22 AM 24-Nov-21

Windows Search File Explorer Mail Spotify Google Chrome Brave Opera WhatsApp Facebook Instagram LinkedIn Microsoft Word

Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help | II | | | | | | | | | |

Ubuntu 64-bit

Activities Terminal ▾ Nov 23 19:38

Browsing HDFS localhost:8020/ + localhost:50070/explorer.html#/bibek/sqoop-pet-import

Hadoop Overview Datanodes Snapshot Startup Progress Utilities ▾

## Browse Directory

/bibek/sqoop-pet-import

Permission	Owner	Group	Size	Replication
-rw-r--r--	hadoop	supergroup	0 B	1
-rw-r--r--	hadoop	supergroup	284 B	1

hadoop@ubuntu: ~

```
Virtual memory (bytes) snapshot=0
Total committed heap usage (bytes)=233308160
File Input Format Counters
Bytes Read=0
File Output Format Counters
Bytes Written=284
21/11/23 19:36:02 INFO mapreduce.ImportJobBase: Transferred 284 bytes in 1.89
58 seconds (149.8014 bytes/sec)
21/11/23 19:36:02 INFO mapreduce.ImportJobBase: Retrieved 8 records.
```

\*note - Notepad

File Edit Format View Help

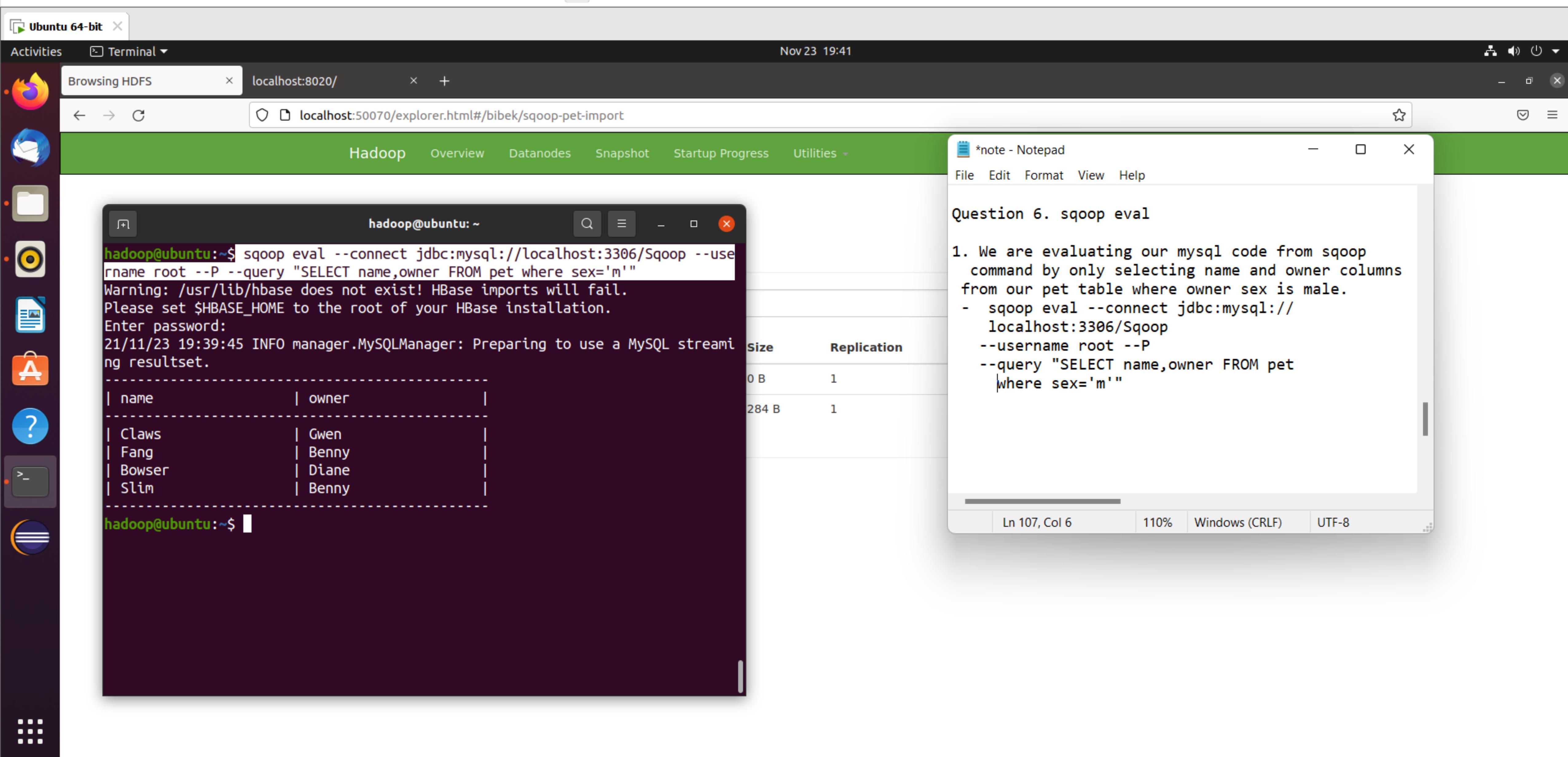
Question 5. sqoop --options-file

1. We can see our option file using cat cmd.  
- cat /home/hadoop/work/Sqoop\_inputs/import.txt
2. We can import our already written code using option file while makes life easier as a developer  
-sqoop --options-file /home/hadoop/work/  
sqoop\_inputs/import.txt  
--table pet  
--split-by name  
--target-dir /bibek/sqoop-pet-import
3. Successfully created

Ln 95, Col 24 110% Windows (CRLF) UTF-8

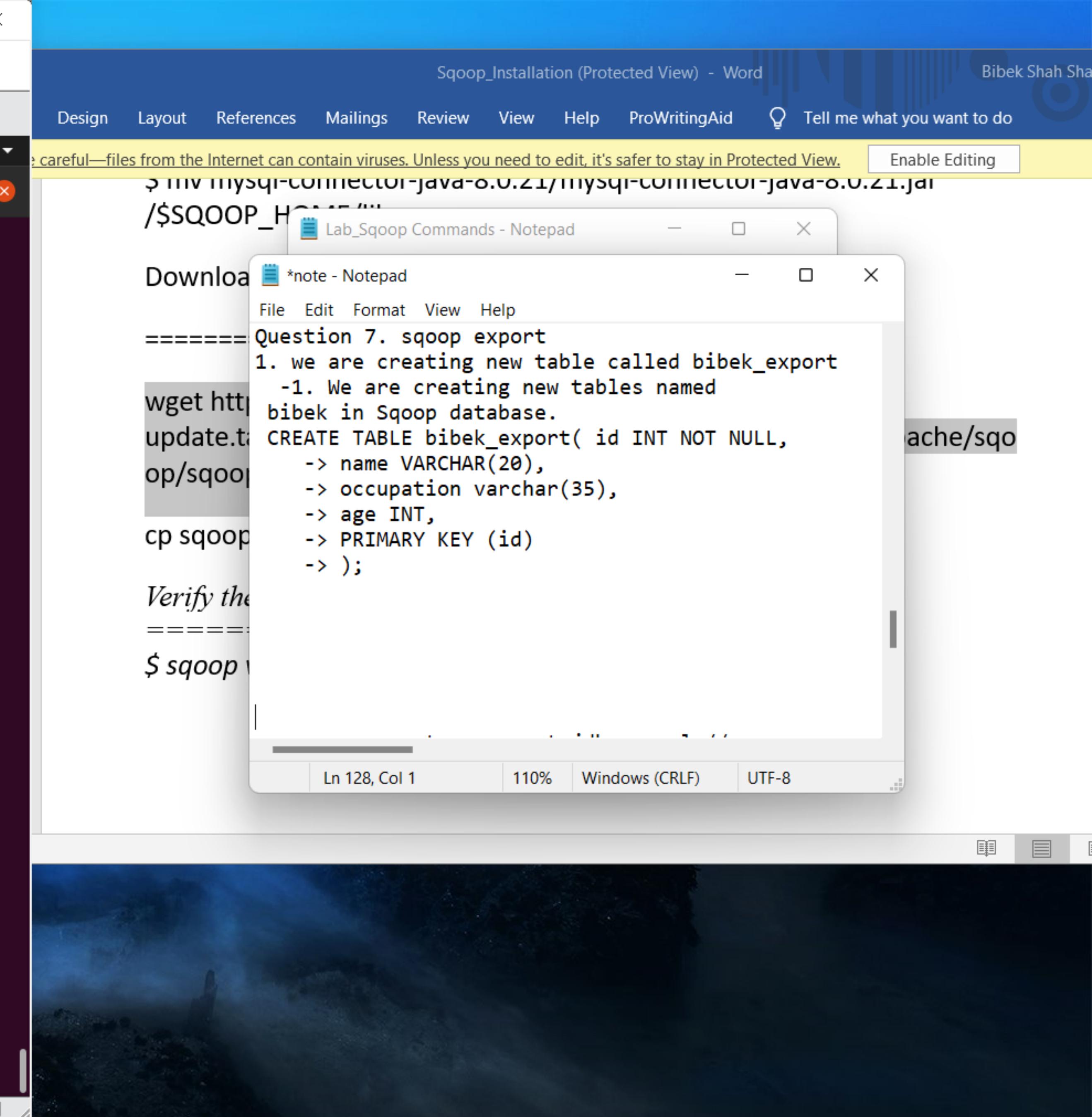
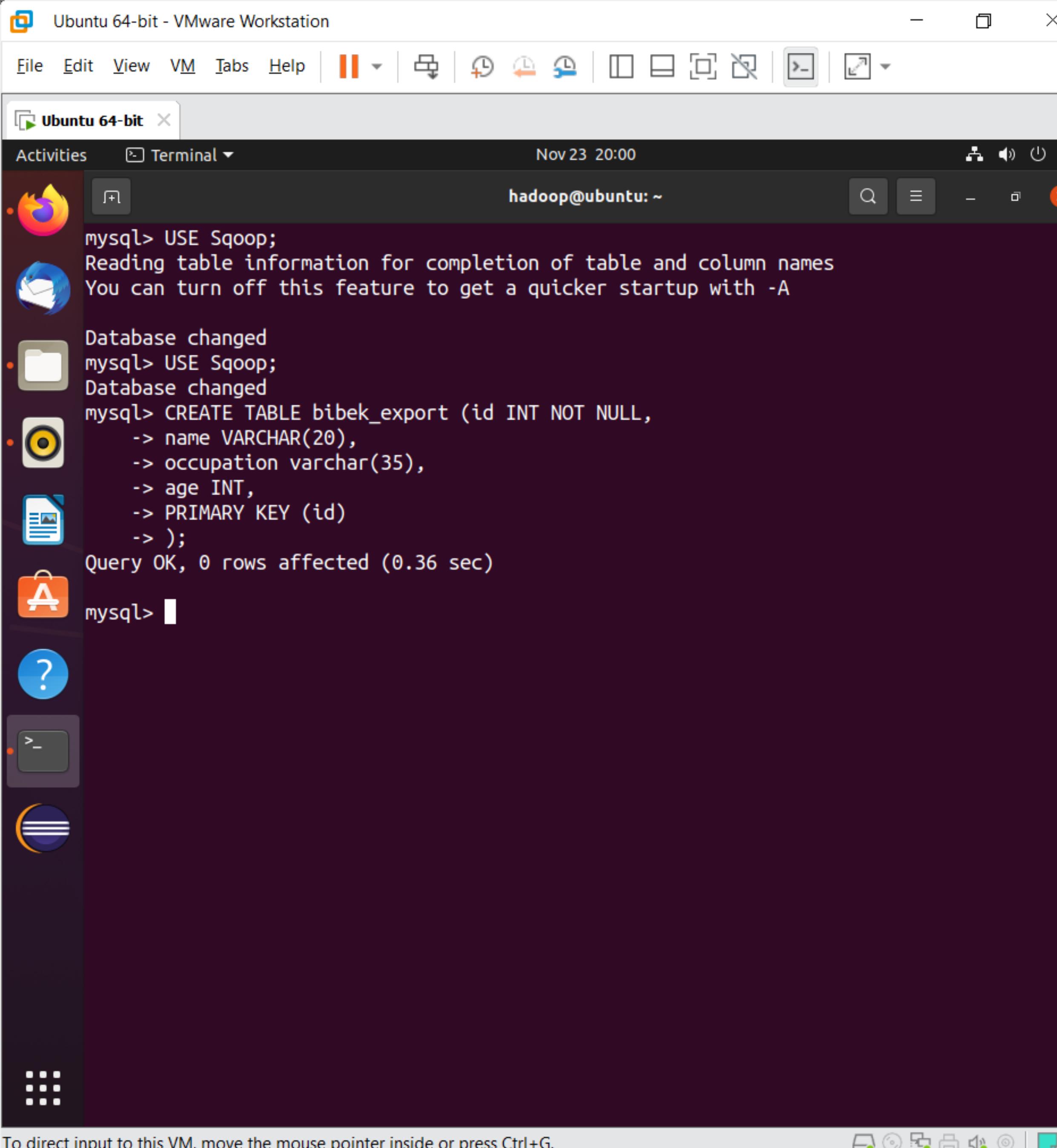
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

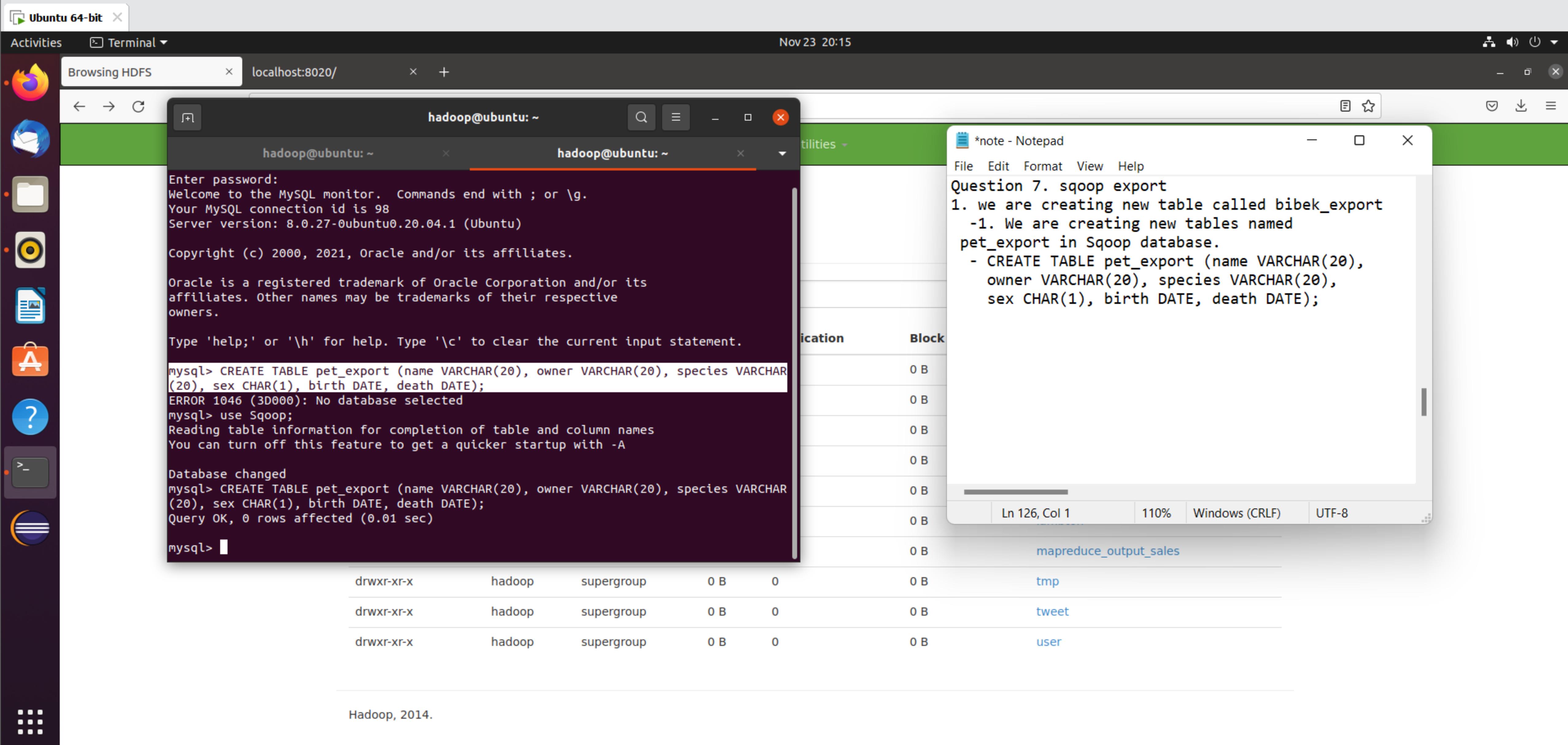
9:23 AM 24-Nov-21



To direct input to this VM, move the mouse pointer inside or press Ctrl+.

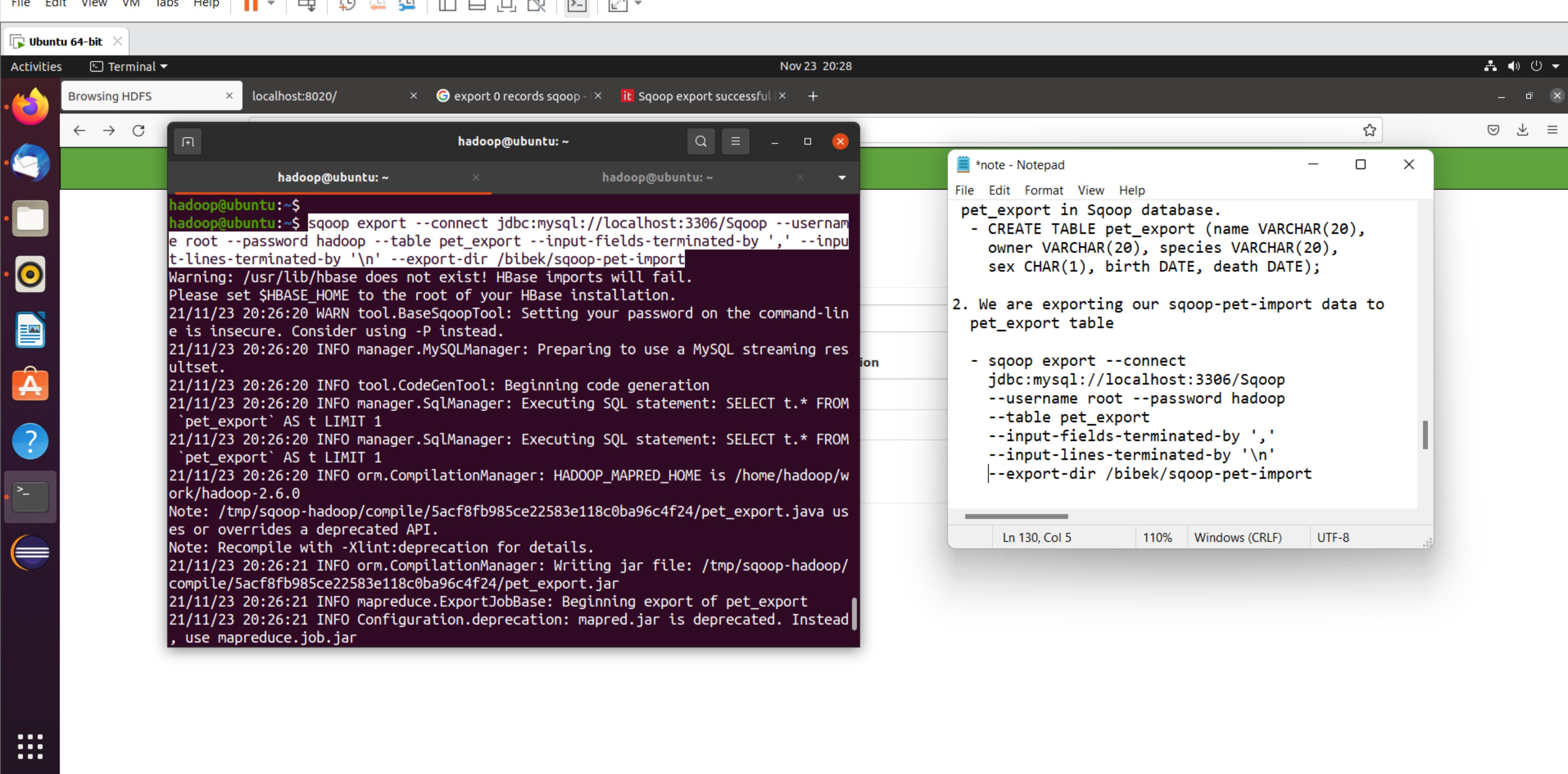






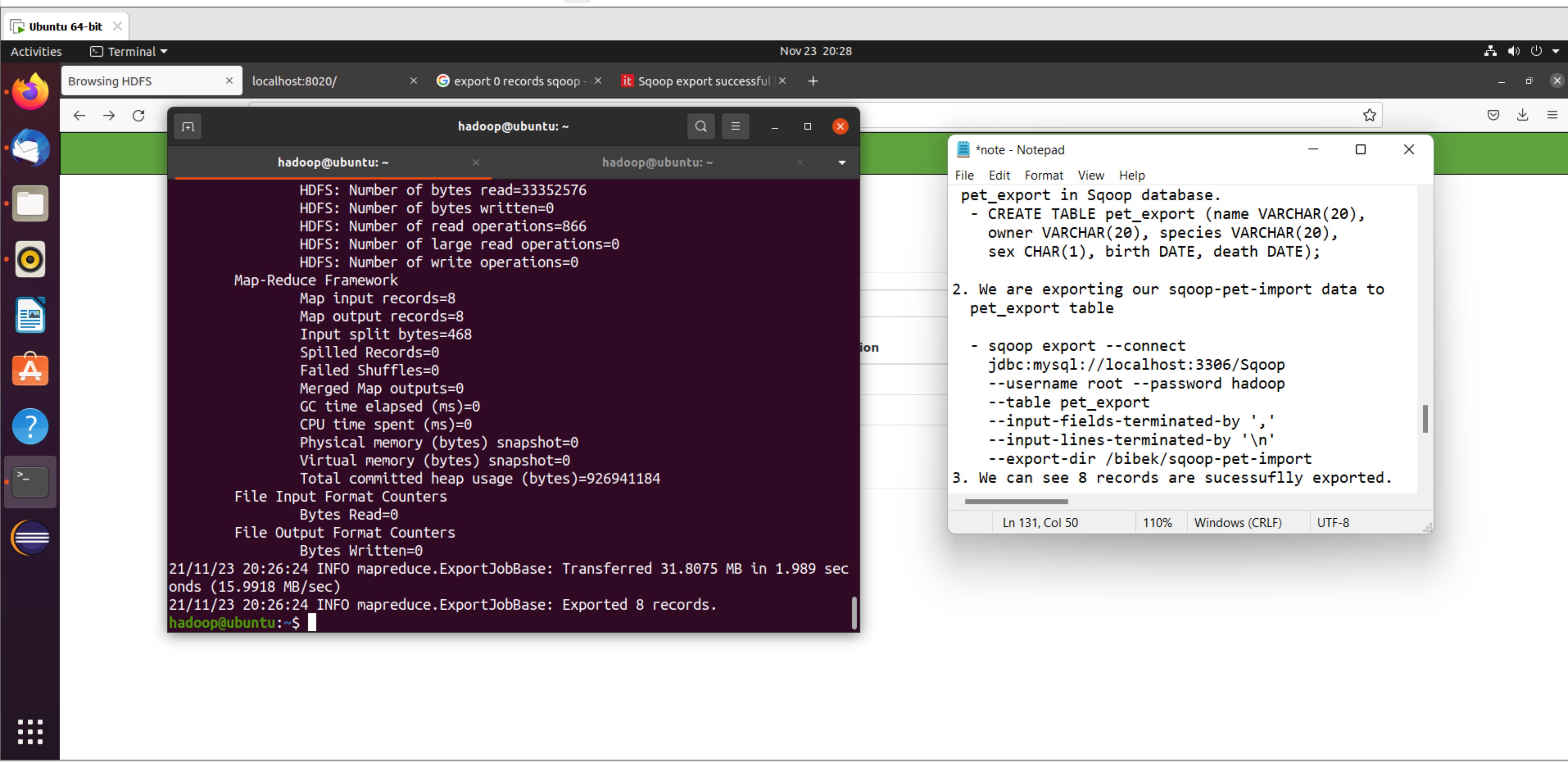
To direct input to this VM, move the mouse pointer inside or press Ctrl+Shift+Esc





To direct input to this VM, move the mouse pointer inside or press Ctrl-





To direct input to this VM, move the mouse pointer inside or press Ctrl+Alt.



Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help | || | | | | | | | | | | | | | | | |

Ubuntu 64-bit

Activities Terminal Nov 23 20:28

Browsing HDFS localhost:8020/ export 0 records sqoop - Sqoop export successful +

hadoop@ubuntu: ~

```
| Tables_in_Sqoop |
+-----+
| bibek
| bibek_export
| pet
| pet_export
+-----+
4 rows in set (0.00 sec)

mysql> select * from pet_export;
+-----+-----+-----+-----+-----+
| name   | owner  | species | sex   | birth   | death  |
+-----+-----+-----+-----+-----+
| Fluffy | Harold | cat    | f     | 1993-02-04 | NULL   |
| Claws  | Gwen   | cat    | m     | 1994-03-17 | NULL   |
| Buffy  | Harold | dog    | f     | 1989-05-13 | NULL   |
| Fang   | Benny  | dog    | m     | 1990-08-27 | NULL   |
| Bowser | Diane  | dog    | m     | 1979-08-31 | 1995-07-29 |
| Chirpy | Gwen   | bird   | f     | 1998-09-11 | NULL   |
| Whistler | Gwen | bird   | f     | 1997-12-09 | NULL   |
| Slim   | Benny  | snake  | m     | 1996-04-29 | NULL   |
+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)

mysql>
```

Utilities \*note - Notepad

File Edit Format View Help

pet\_export in Sqoop database.

- CREATE TABLE pet\_export (name VARCHAR(20), owner VARCHAR(20), species VARCHAR(20), sex CHAR(1), birth DATE, death DATE);

2. We are exporting our sqoop-pet-import data to pet\_export table

- sqoop export --connect jdbc:mysql://localhost:3306/Sqoop --username root --password hadoop --table pet\_export --input-fields-terminated-by ',' --input-lines-terminated-by '\n' --export-dir /bibek/sqoop-pet-import

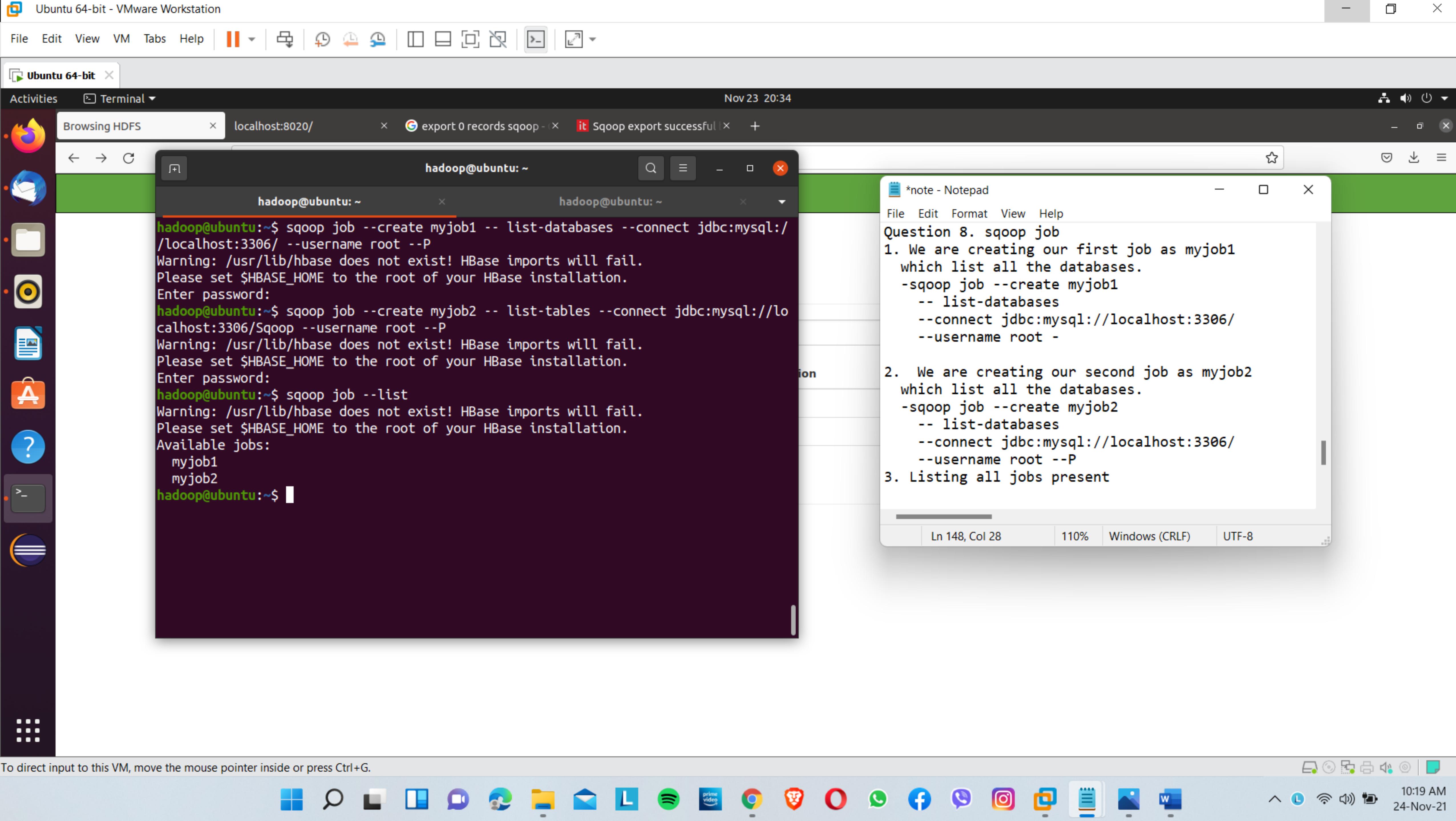
3. We can see 8 records are sucessfully exported.

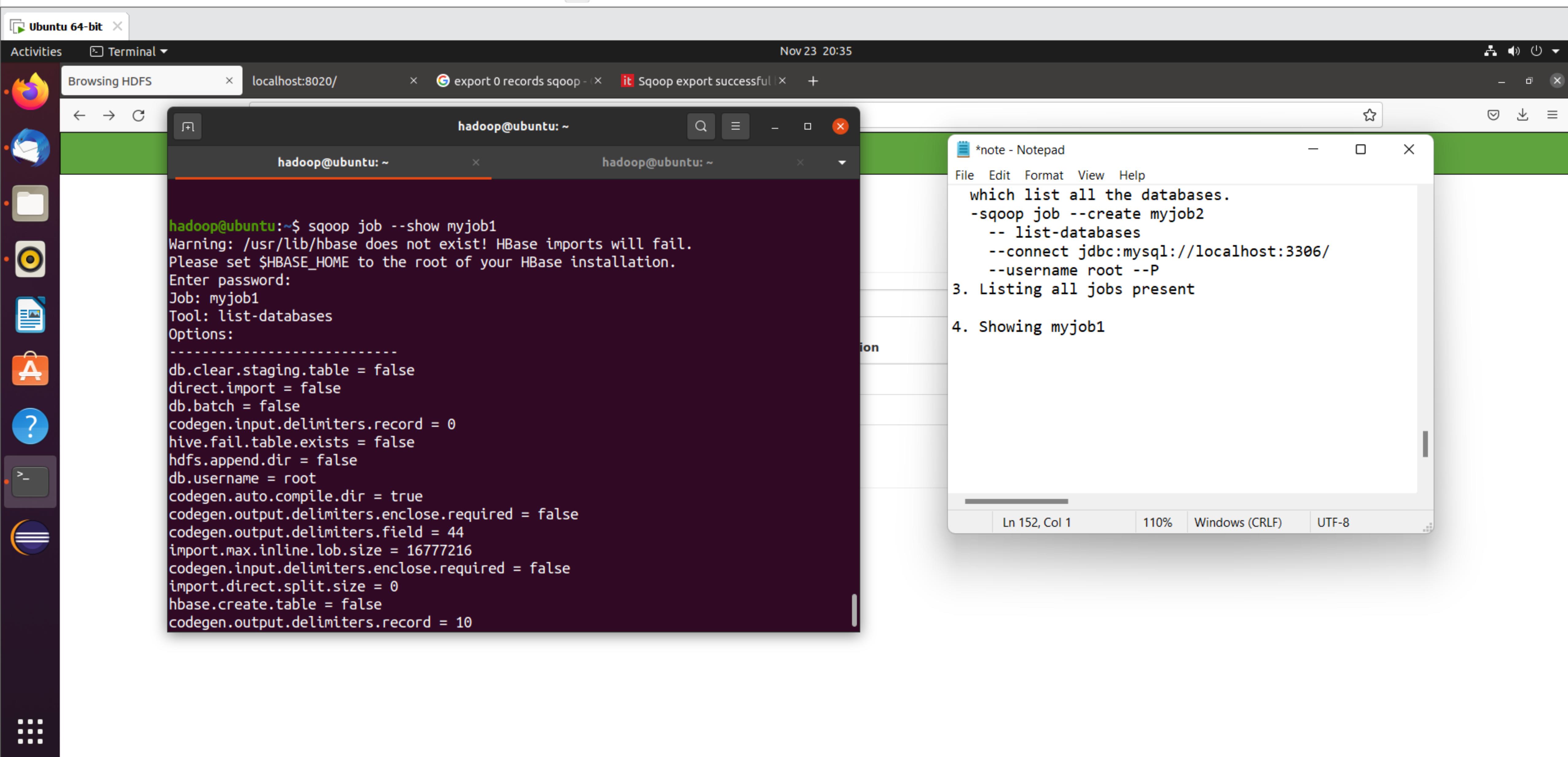
Replication 0 0 0

Ln 131, Col 50 110% Windows (CRLF) UTF-8

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

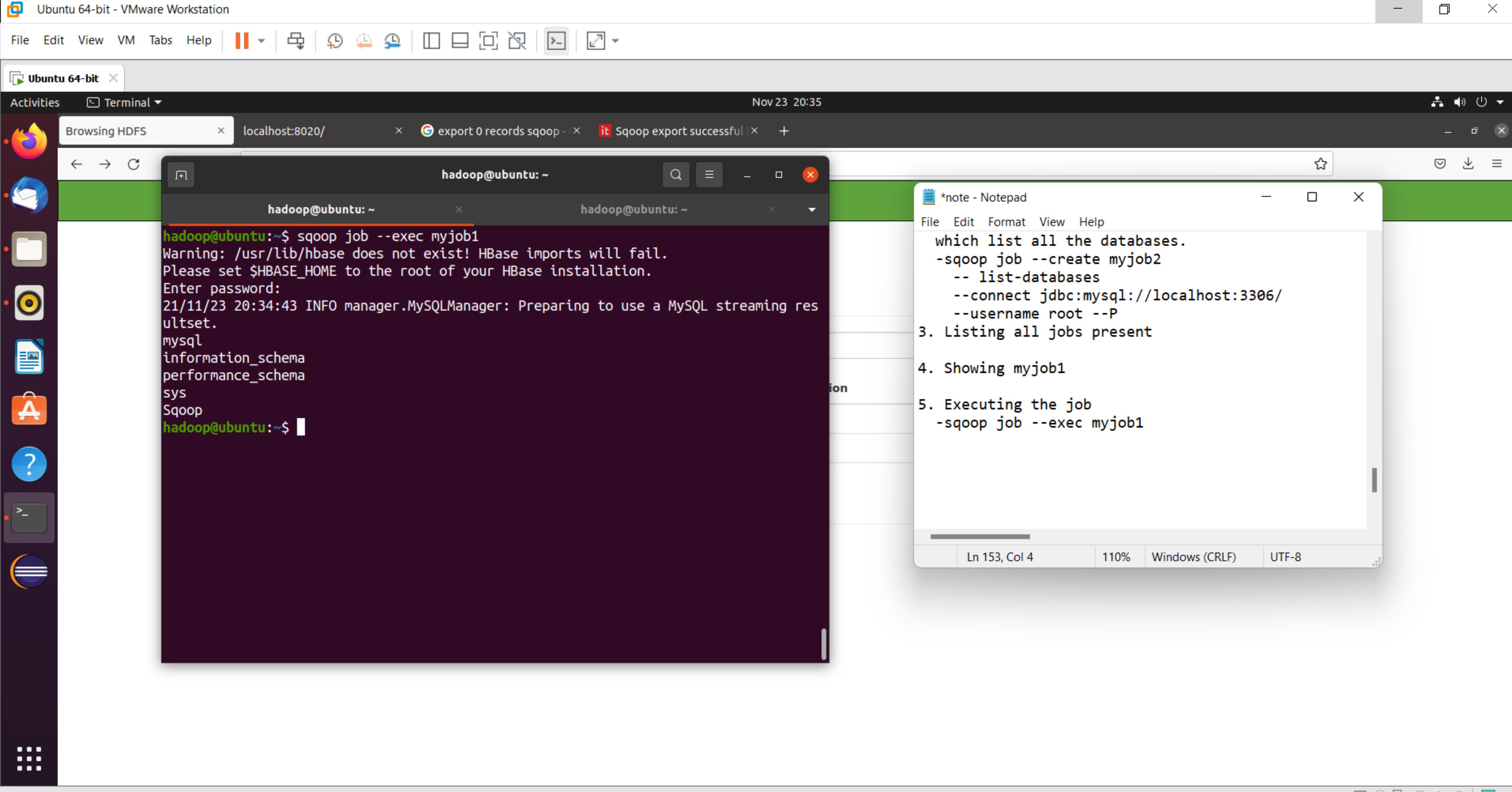
10:13 AM 24-Nov-21





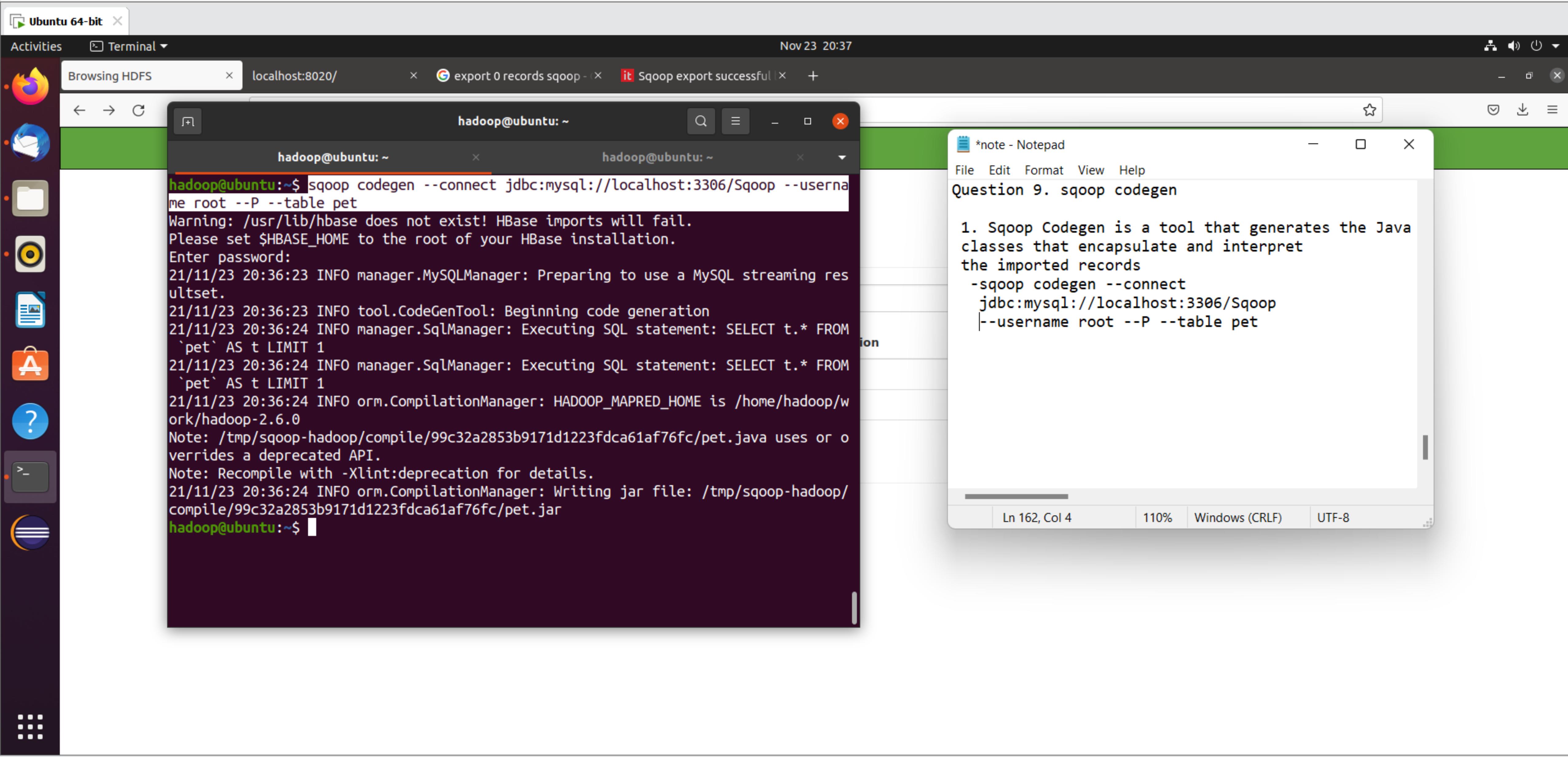
To direct input to this VM, move the mouse pointer inside or press Ctrl+.





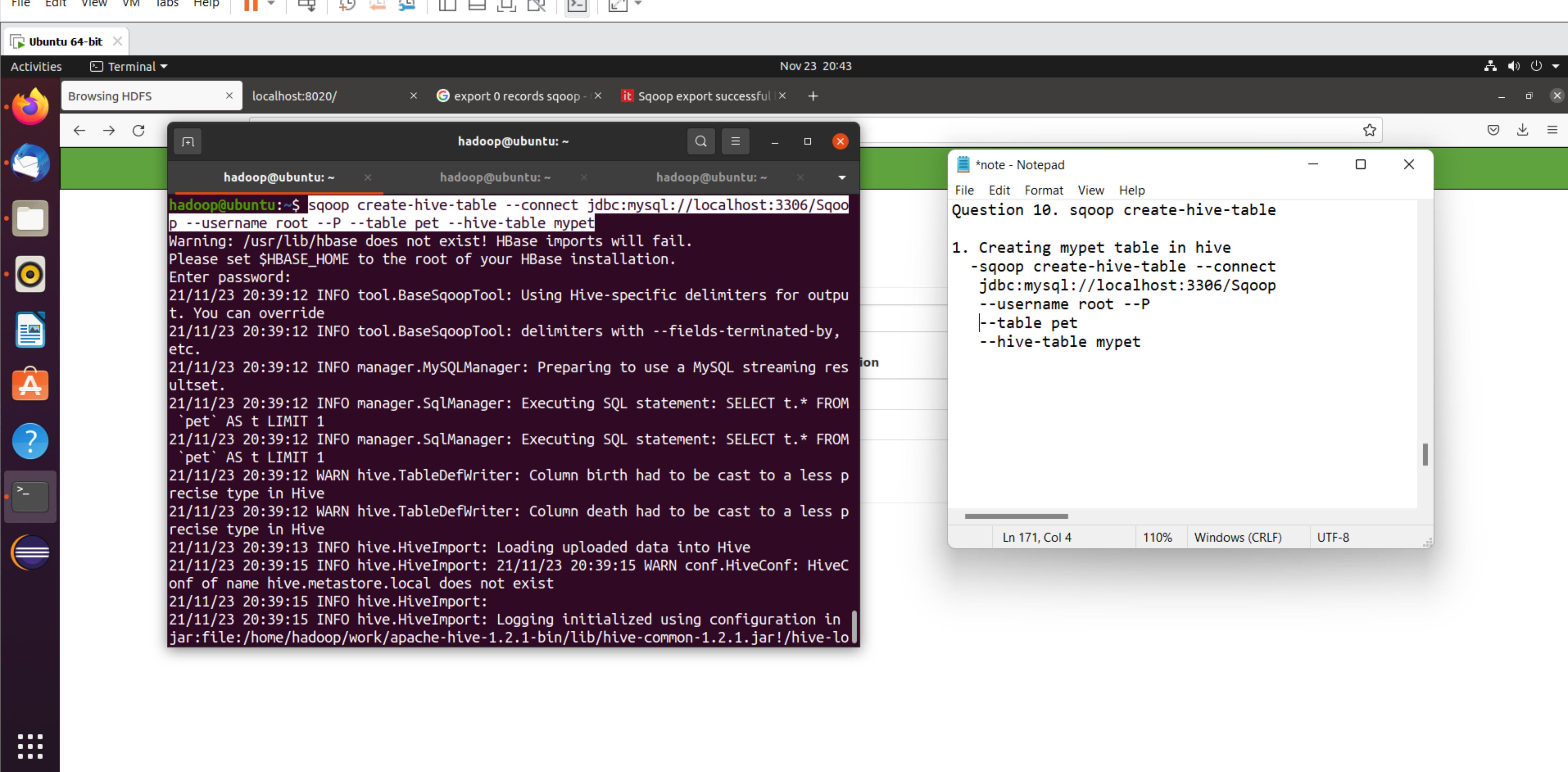
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.





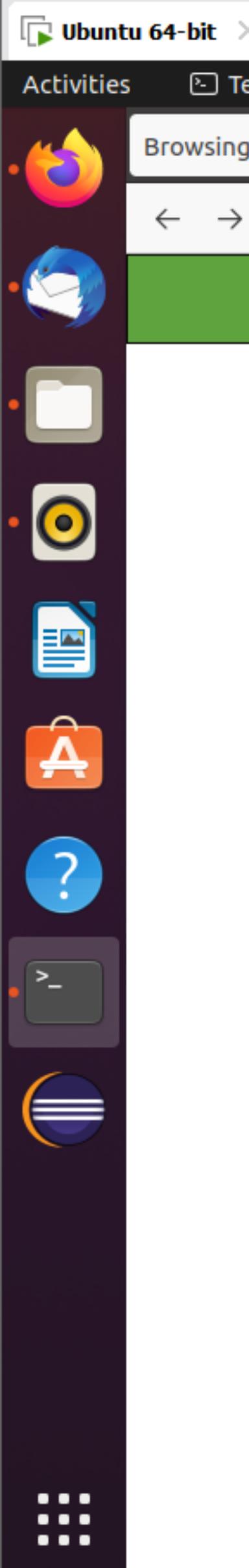
To direct input to this VM, move the mouse pointer inside or press Ctrl+.





To direct input to this VM, move the mouse pointer inside or press Ctrl+.





To direct input to this VM, move the mouse pointer inside or press Ctrl+.

Nov 23 20

Browsing HDFS x localhost:8020

 export 0 records sqoop -

cessful ✘

```
hadoop@ubuntu:~$ hive
21/11/23 20:44:43 WARN conf.HiveConf: HiveConf of name hive.metastore.local does
t exist

Logging initialized using configuration in jar:file:/home/hadoop/work/apache-hiv
.2.1-bin/lib/hive-common-1.2.1.jar!/hive-log4j.properties
hive> show tables;
OK
mypet
Time taken: 0.521 seconds, Fetched: 1 row(s)
hive> █
```

\*note - Notepad

## Question 10. `sqoop create-hive-table`

1. Creating mypet table in hive  
-sqoop create-hive-table --connect jdbc:mysql://localhost:3306/Sqoop  
--username root --P  
--table pet  
--hive-table mypet
  2. we can see mypet table in hive