

Universidade Federal De Uberlândia
Faculdade de Computação
Sistemas De Informação
Banco de dados 2
GSI021

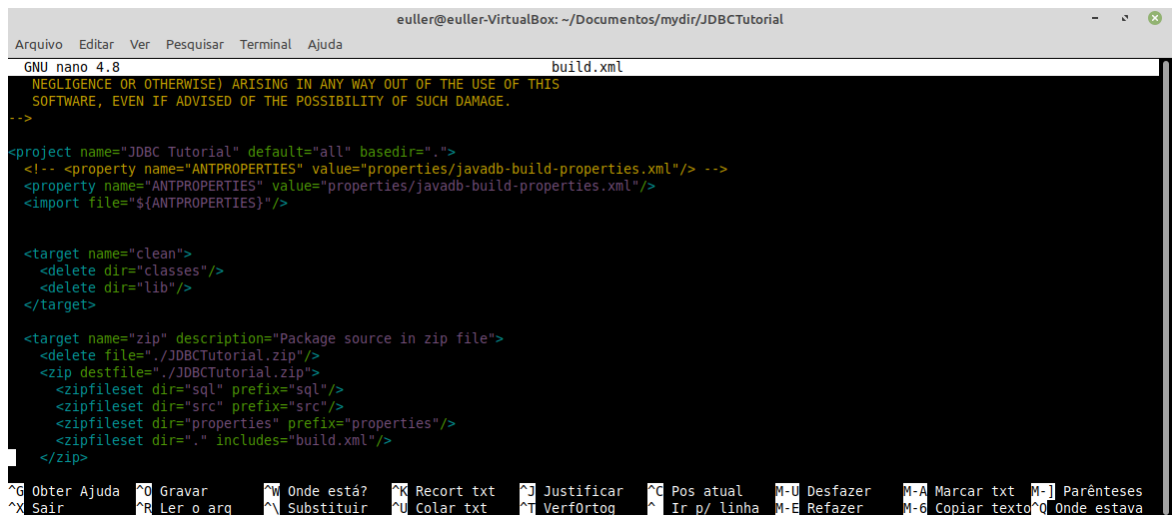
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11821BSI210

T05-Modificando o tutorial JDBC

Uberlândia
2021

1) Realize a seguinte alteração no arquivo build.xml para o postgresql ser utilizado:

- <property name="ANTPROPERTIES" value="properties/mysql-build-properties.xml"/>
- + <property name="ANTPROPERTIES" value="properties/javadb-build-properties.xml"/>

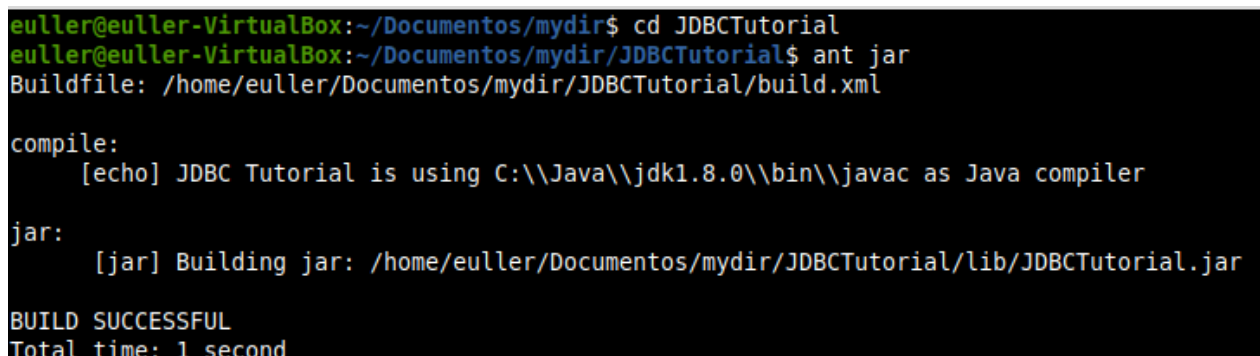


```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
GNU nano 4.8 build.xml
NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS
SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
-->
<project name="JDBC Tutorial" default="all" basedir=".">
  <!-- <property name="ANTPROPERTIES" value="properties/mysql-build-properties.xml"/> -->
  <property name="ANTPROPERTIES" value="properties/javadb-build-properties.xml"/>
  <import file="${ANTPROPERTIES}"/>

  <target name="clean">
    <delete dir="classes"/>
    <delete dir="lib"/>
  </target>

  <target name="zip" description="Package source in zip file">
    <delete file="JDBCTutorial.zip"/>
    <zip destfile="JDBCTutorial.zip">
      <zipfileset dir="sql" prefix="sql"/>
      <zipfileset dir="src" prefix="src"/>
      <zipfileset dir="properties" prefix="properties"/>
      <zipfileset dir="." includes="build.xml"/>
    </zip>
  </target>
</project>
```

2). Execute o comando ant jar



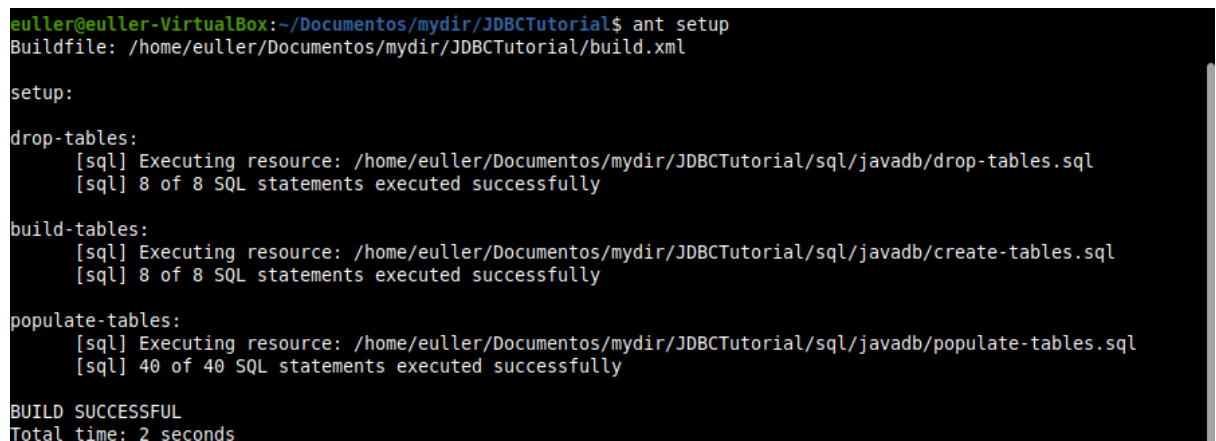
```
euller@euller-VirtualBox:~/Documentos/mydir$ cd JDBCTutorial
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ant jar
Buildfile: /home/euller/Documentos/mydir/JDBCTutorial/build.xml

compile:
[echo] JDBC Tutorial is using C:\Java\jdk1.8.0\bin\javac as Java compiler

jar:
[jar] Building jar: /home/euller/Documentos/mydir/JDBCTutorial/lib/JDBCTutorial.jar

BUILD SUCCESSFUL
Total time: 1 second
```

3) Execute o comando ant.setup



```
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ant setup
Buildfile: /home/euller/Documentos/mydir/JDBCTutorial/build.xml

setup:

drop-tables:
[sql] Executing resource: /home/euller/Documentos/mydir/JDBCTutorial/sql/javadb/drop-tables.sql
[sql] 8 of 8 SQL statements executed successfully

build-tables:
[sql] Executing resource: /home/euller/Documentos/mydir/JDBCTutorial/sql/javadb/create-tables.sql
[sql] 8 of 8 SQL statements executed successfully

populate-tables:
[sql] Executing resource: /home/euller/Documentos/mydir/JDBCTutorial/sql/javadb/populate-tables.sql
[sql] 40 of 40 SQL statements executed successfully

BUILD SUCCESSFUL
Total time: 2 seconds
```

4). Execute o comando ant runc

```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ant runc
Buildfile: /home/euller/Documentos/mydir/JDBCTutorial/build.xml

runc:
[java] Set the following properties:
[java] dbms: derby
[java] driver: org.apache.derby.jdbc.EmbeddedDriver
[java] dbName: testdb
[java] userName:
[java] serverName: localhost
[java] portNumber: 3306
[java] Connected to database
[java]
[java] Contents of COFFEES table:
[java] Colombian, 101, 7.99, 0, 0
[java] French_Roast, 49, 8.99, 0, 0
[java] Espresso, 150, 9.99, 0, 0
[java] Colombian_Decaf, 101, 8.99, 0, 0
[java] French_Roast_Decaf, 49, 9.99, 0, 0
[java]
[java] Raising coffee prices by 25%
[java]
[java] Inserting a new row:
[java] Colombian, 101, 9.98, 0, 0
[java] French_Roast, 49, 11.23, 0, 0
[java] Espresso, 150, 12.48, 0, 0
[java] Colombian Decaf, 101, 11.23, 0, 0
```

5) Baixe o código fonte da classe MyQueries.java e JDBCUtilities.java e o coloque no diretório raiz do tutorial. Em seguida posicione o cursor na pasta raiz do tutorial com o comando cd e digite:

```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
euller@euller-VirtualBox:~/Documentos$ cd mydir
euller@euller-VirtualBox:~/Documentos/mydir$ cd JDBCTutorial/
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ls
build.xml  comp      JDBCUtilities.java  MyQueries.java  sql  testdb  xml
classes    derby.log  lib                 properties      src  txt
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$
```

1. cp MyQueries.java src/com/oracle/tutorial/jdbc/
2. cp JDBCUtilities.java src/com/oracle/tutorial/jdbc/

```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
euller@euller-VirtualBox:~/Documentos$ cd mydir
euller@euller-VirtualBox:~/Documentos/mydir$ cd JDBCTutorial/
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ls
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ cp MyQueries.java src/com/oracle/tutorial/jdbc
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ cp JDBCUtilities.java src/com/oracle/tutorial/jdbc
```

6) Incluir uma sessão de configuração para executar a classe MyQueries no arquivo build.xml:

```
+ <target name="mycode">
+   <java classname="com.oracle.tutorial.jdbc.MyQueries"
+     classpathref="CLASSPATH" fork="true" dir=".">
+     <arg value="${PROPERTIESFILE}"/>
+   </java>
+ </target>
```



```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
GNU nano 4.8      build.xml      Modificado
<target name="runmysql">
  <echo message="Current properties file: ${PROPERTIESFILE}"></echo>
  <java classname="com.oracle.tutorial.jdbc.StoredProcedureMySQLSample"
    classpathref="CLASSPATH" fork="true" dir=".">
    <arg value="${PROPERTIESFILE}"/>
  </java>
</target>

<target name="runframe">
  <java classname="com.oracle.tutorial.jdbc.CoffeesFrame"
    classpathref="CLASSPATH" fork="true" dir=".">
    <arg value="${PROPERTIESFILE}"/>
  </java>
</target>

<target name="mycode">
  <java classname="com.oracle.tutorial.jdbc.MyQueries"
    classpathref="CLASSPATH" fork="true" dir=".">
    <arg value="${PROPERTIESFILE}"/>
  </java>
</target>
```

7) Modificar a consulta presente em MyQueries.java para atender ao seguinte enunciado:
Liste os nomes de todos os fornecedores de café acompanhados da quantidade de tipos de cafés vendidos para a loja.

```
public class MyQueries {
    Connection con;
    JDBCUtilities settings;

    public MyQueries(Connection connArg, JDBCUtilities settingsArg) {
        this.con = connArg;
        this.settings = settingsArg;
    }

    public static void getMyData(Connection con) throws SQLException {
        Statement stmt = null;
        String query =
            "SELECT SC.sup_name, COUNT(DISTINCT SC.cof_name) FROM (SELECT S.sup_name, C.cof_name FROM SUPPLIERS AS S, COFFEES AS C WHERE S.sup_id = C.sup_id) as SC GROUP BY SC.sup_name";

        try {
            stmt = con.createStatement();
            ResultSet rs = stmt.executeQuery(query);
            while (rs.next()) {
                String coffeeName = rs.getString(1);
                System.out.println("    " + coffeeName);
                String count = rs.getString(2);
                System.out.println("    " + count);
            }
        } catch (SQLException e) {
            JDBCUtilities.printSQLException(e);
        } finally {
            if (stmt != null) { stmt.close(); }
        }
    }
}
```

8) Compilar, reiniciar o banco e executar o novo código

1. ant jar

```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda

jar:
  [jar] Building jar: /home/euller/Documentos/mydir/JDBCTutorial/lib/JDBCTutorial.jar

BUILD SUCCESSFUL
Total time: 2 seconds
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ant jar
Buildfile: /home/euller/Documentos/mydir/JDBCTutorial/build.xml

compile:
  [echo] JDBC Tutorial is using /usr/lib/jvm/java-8-openjdk-amd64/bin/javac as Java compiler

jar:

BUILD SUCCESSFUL
Total time: 1 second
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ant jar
Buildfile: /home/euller/Documentos/mydir/JDBCTutorial/build.xml

compile:
  [echo] JDBC Tutorial is using /usr/lib/jvm/java-8-openjdk-amd64/bin/javac as Java compiler

jar:
  [jar] Building jar: /home/euller/Documentos/mydir/JDBCTutorial/lib/JDBCTutorial.jar

BUILD SUCCESSFUL
Total time: 1 second
```

2. ant setup

```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda

  [echo] JDBC Tutorial is using /usr/lib/jvm/java-8-openjdk-amd64/bin/javac as Java compiler

jar:
  [jar] Building jar: /home/euller/Documentos/mydir/JDBCTutorial/lib/JDBCTutorial.jar

BUILD SUCCESSFUL
Total time: 1 second
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ant setup
Buildfile: /home/euller/Documentos/mydir/JDBCTutorial/build.xml

setup:

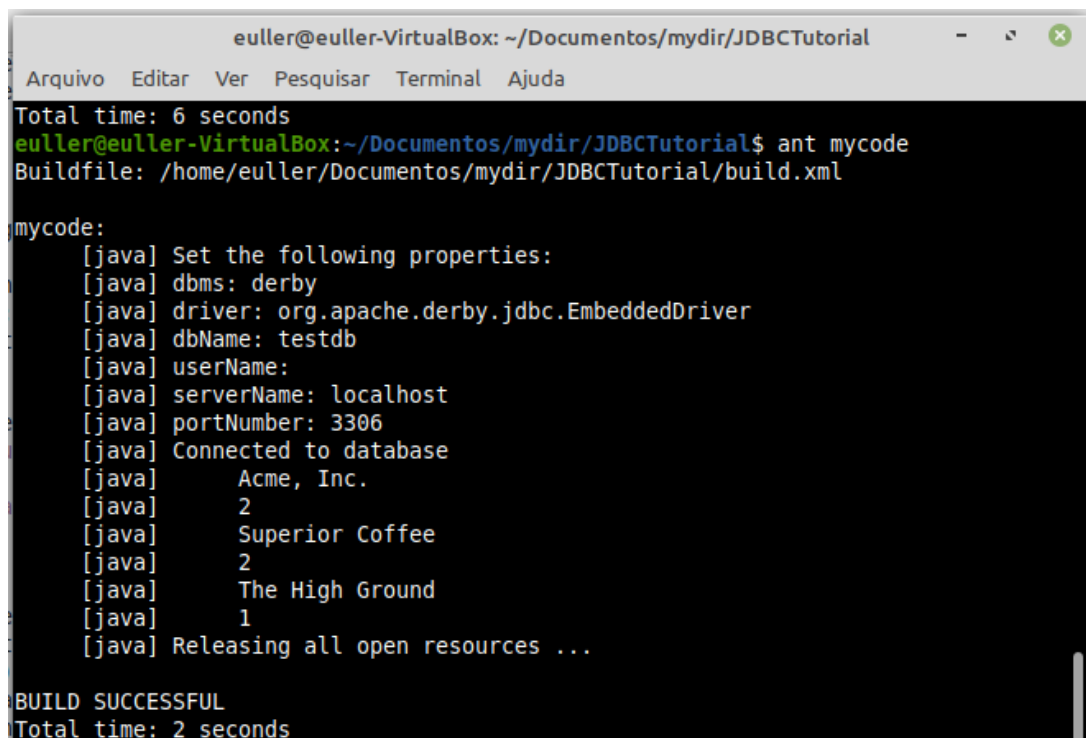
drop-tables:
  [sql] Executing resource: /home/euller/Documentos/mydir/JDBCTutorial/sql/javadb/drop-tables.sql
  [sql] 8 of 8 SQL statements executed successfully

build-tables:
  [sql] Executing resource: /home/euller/Documentos/mydir/JDBCTutorial/sql/javadb/create-tables.sql
  [sql] 8 of 8 SQL statements executed successfully

populate-tables:
  [sql] Executing resource: /home/euller/Documentos/mydir/JDBCTutorial/sql/javadb/populate-tables.sql
  [sql] 40 of 40 SQL statements executed successfully

BUILD SUCCESSFUL
Total time: 4 seconds
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$
```

3. ant mycode

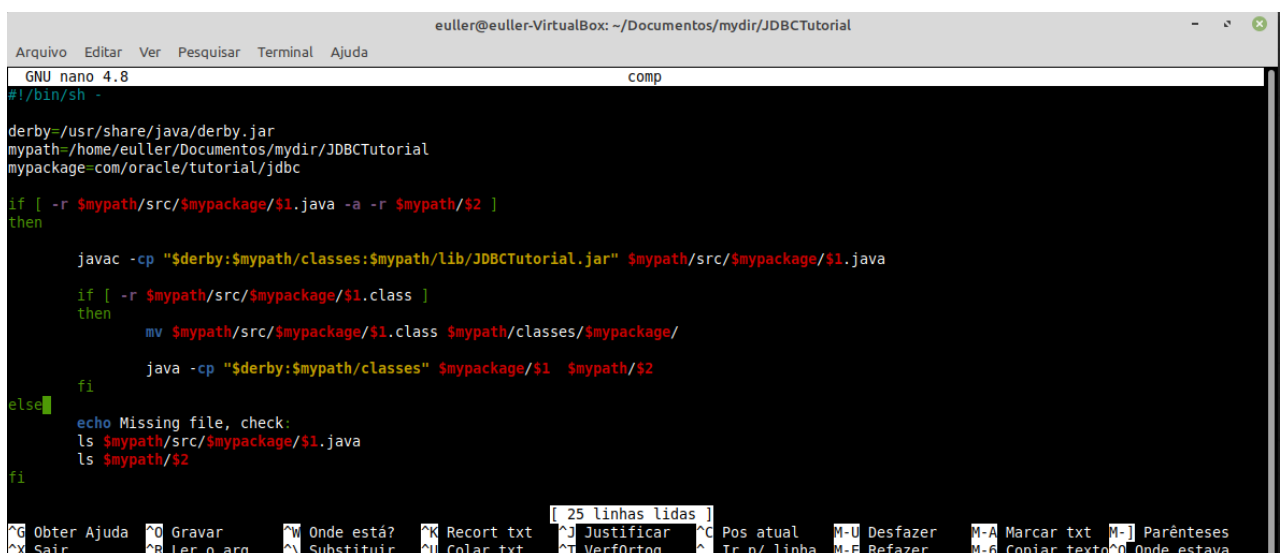


```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
Arquivo Editar Ver Pesquisar Terminal Ajuda
Total time: 6 seconds
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ant mycode
Buildfile: /home/euller/Documentos/mydir/JDBCTutorial/build.xml

mycode:
[java] Set the following properties:
[java] dbms: derby
[java] driver: org.apache.derby.jdbc.EmbeddedDriver
[java] dbName: testdb
[java] userName:
[java] serverName: localhost
[java] portNumber: 3306
[java] Connected to database
[java]      Acme, Inc.
[java]      2
[java]      Superior Coffee
[java]      2
[java]      The High Ground
[java]      1
[java] Releasing all open resources ...

BUILD SUCCESSFUL
Total time: 2 seconds
```

9) Baixe o arquivo comp para a pasta raiz do tutorial (mesma pasta onde está o build.xml). De agora em diante utilizaremos o comp para compilar e executar as modificações da classe MyQueries e evitar reutilizar o código armazenado na biblioteca JDBCTutorial.jar. Abram o script comp para entender como ele funciona. Lembre-se de alterar os caminhos absolutos que estão digitados no arquivo comp, esse arquivo foi configurado para a minha máquina e você deve alterar as pastas para a sua máquina.



```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
Arquivo Editar Ver Pesquisar Terminal Ajuda
GNU nano 4.8 comp
#!/bin/sh

derby=/usr/share/java/derby.jar
mypath=/home/euller/Documentos/mydir/JDBCTutorial
mypackage=com/oracle/tutorial/jdbc

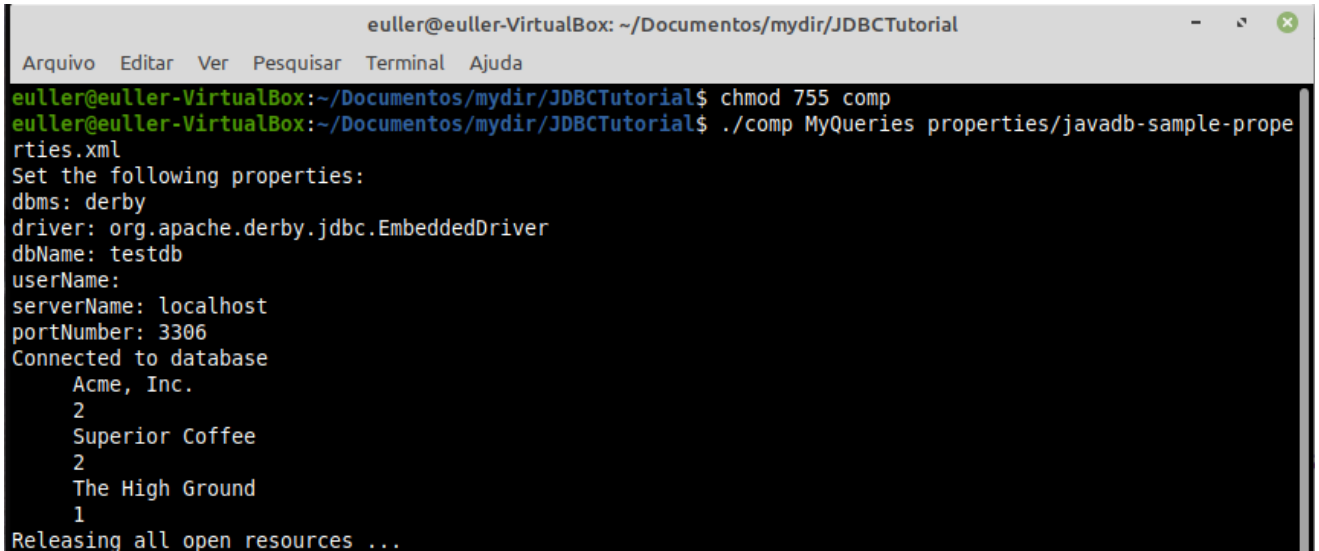
if [ -r $mypath/src/$mypackage/$1.java -a -r $mypath/$2 ]
then
    javac -cp "$derby:$mypath/classes:$mypath/lib/JDBCTutorial.jar" $mypath/src/$mypackage/$1.java

    if [ -r $mypath/src/$mypackage/$1.class ]
    then
        mv $mypath/src/$mypackage/$1.class $mypath/classes/$mypackage/
    fi
    java -cp "$derby:$mypath/classes" $mypackage/$1 $mypath/$2
else
    echo Missing file, check:
    ls $mypath/src/$mypackage/$1.java
    ls $mypath/$2
fi

[ 25 linhas lidas ]
^G Obter Ajuda ^O Gravar ^W Onde está? ^K Recort txt ^J Justificar ^C Pos atual M-U Desfazer M-A Marcar txt M-] Parênteses
^X Sair ^R Ler o arq ^_ Substituir ^U Colar txt ^T VerfOrtog ^I Ir p/ linha M-E Refazer M-6 Copiar texto ^Q Onde estava
```

10) Antes de executar o script comp, mude a permissão de execução no linux:

1. `chmod 755 comp`
2. `./comp MyQueries properties/javadb-sample-properties.xml`



```
euller@euller-VirtualBox: ~/Documentos/mydir/JDBCTutorial
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ chmod 755 comp
euller@euller-VirtualBox:~/Documentos/mydir/JDBCTutorial$ ./comp MyQueries properties/javadb-sample-properties.xml
Set the following properties:
dbms: derby
driver: org.apache.derby.jdbc.EmbeddedDriver
dbName: testdb
userName:
serverName: localhost
portNumber: 3306
Connected to database
    Acme, Inc.
    2
    Superior Coffee
    2
    The High Ground
    1
Releasing all open resources ...
```