

# **Trabalho 3 BD2**

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SISTEMAS DE BANCOS DE DADOS  
AULA 06 -  
MONTAGEM DO AMBIENTE DE TRABALHO

## Seção 2: instalando o programa ant

aptitude instalado com sucesso:

```
maycon@maycon-Inspiron-3584:~$ aptitude --version
aptitude 0.8.13
Compilador: g++ 10.2.1 20210320
Compilado contra:
versão apt 6.0.0
  Versão NCurses: 6.2
  versão libsigc++: 2.10.4
  Suporte para Gtk+ desactivado.
  Suporte para Qt desactivado.

Versões atuais das bibliotecas:
  Versão NCurses: ncurses 6.3.20211021
  versão cwidget: 0.5.18
  Versão apt: 6.0.0
maycon@maycon-Inspiron-3584:~$
```

Rodando o comando:

aptitude search postgres:

```
maycon@maycon-Inspiron-3584:~$ aptitude search postgres
p  akonadi-backend-postgresql          - PostgreSQL storage backend for Akonadi
p  autopostgresqlbackup                - Automated tool to make periodic backups of PostgreSQL databases
p  check-postgres                      - script for monitoring PostgreSQL databases
p  cl-postgres                         - Low-level client library for PostgreSQL
p  cl-sql-postgresql                  - mecanismo de banco de dados C/SQL, PostgreSQL via biblioteca
p  cl-sql-postgresql-socket            - mecanismo de banco de dados C/SQL, PostgreSQL via sockets
p  clisp-module-postgresql             - GNU CLISP module that adds a PostgreSQL interface
p  courier-authlib-postgresql          - suporte a PostgreSQL para a biblioteca de autenticação Courier
p  eekboek-db-postgresql               - PostgreSQL database driver for EekBook
p  elephant-shed-postgresql            - PostgreSQL dashboard -- PostgreSQL integration
p  freeradius-postgresql               - PostgreSQL module for FreeRADIUS server
p  gamba3-gb-db-postgresql             - PostgreSQL driver for the Gambas database
p  gnustep-dl2-postgresql-adaptor      - gnustep-dl2 adaptor to connect to PostgreSQL
v  haskell-hdbc-postgresql-doc         -
p  homer-api-postgresql                - HOMER Capture Node REST API
p  kamailio-postgres-modules            - PostgreSQL database connectivity module for the Kamailio SIP server
p  kexi-postgresql-driver               - PostgreSQL support for kexi
p  libcppdb-postgresql0                - SQL Connectivity Library (PostgreSQL backend)
p  libgda-5.0-postgres                 - PostgreSQL provider for libgda database abstraction library
p  libghc-hdbc-postgresql-dev           - PostgreSQL HDBC (Haskell Database Connectivity) Driver for GHC
v  libghc-hdbc-postgresql-dev-2.3.2.7-e0dde
p  libghc-hdbc-postgresql-doc           - PostgreSQL HDBC (Haskell Database Connectivity) documentation
p  libghc-hdbc-postgresql-prof          - PostgreSQL HDBC Driver for GHC; profiling libraries
v  libghc-hdbc-postgresql-prof-2.3.2.7-e0dde
p  libghc-persistent-postgresql-dev     - backend for the persistent library using PostgreSQL
v  libghc-persistent-postgresql-dev-2.10.1.2-50715
p  libghc-persistent-postgresql-doc     - backend for the persistent library using PostgreSQL; documentation
p  libghc-persistent-postgresql-prof    - backend for the persistent library using PostgreSQL; profiling libraries
v  libghc-persistent-postgresql-prof-2.10.1.2-50715
p  libghc-postgresql-libpq-dev          - low-level binding to libpq
v  libghc-postgresql-libpq-dev-0.9.4.2-7848c
p  libghc-postgresql-libpq-doc          - low-level binding to libpq; documentation
p  libghc-postgresql-libpq-prof         - low-level binding to libpq; profiling libraries
v  libghc-postgresql-libpq-prof-0.9.4.2-7848c
p  libghc-postgresql-simple-dev         - mid-level PostgreSQL client library
v  libghc-postgresql-simple-dev-0.6.2-d4e7b
p  libghc-postgresql-simple-doc         - mid-level PostgreSQL client library; documentation
```

ant instalado com sucesso:

ant -help

```
maycon@maycon-Inspiron-3584:~$ ant --help
/usr/bin/ant [script options] [options] [target [target2 [target3] ...]]
Script Options:
--help, -h          print this message and ant help
--noconfig           suppress sourcing of /etc/ant.conf,
                    $HOME/.ant/ant.conf, and $HOME/.antrc
                    configuration files
--usejikes           enable use of jikes by default, unless
                    set explicitly in configuration files
--execdebug          print ant exec line generated by this
                    launch script

ant [options] [target [target2 [target3] ...]]
Options:
-help, -h           print this message and exit
-projecthelp, -p    print project help information and exit
-version            print the version information and exit
-diagnostics        print information that might be helpful to
                    diagnose or report problems and exit
-quiet, -q          be extra quiet
-silent, -S         print nothing but task outputs and build failures
-verbose, -v        be extra verbose
-debug, -d          print debugging information
-emacs, -e          produce logging information without adornments
-lib <path>         specifies a path to search for jars and classes
-logfile <file>     use given file for log
-l <file>           ''
-logger <classname> the class which is to perform logging
-listener <classname> add an instance of class as a project listener
-noinput            do not allow interactive input
-buildfile <file>   use given buildfile
-f <file>           ''
-f <file>           ''
-D<property>=<value> use value for given property
-keep-going, -k     execute all targets that do not depend
                    on failed target(s)
-propertyfile <name> load all properties from file with -D
                    properties taking precedence
```

## Seção 3: instalação e configuração do JDK

Essa parte do relatório foi omitido pois nós usamos linux a alguns anos e já temos o java com JDK instalado nas nossas maquinas e como o usaremos comando java nas seções posteriores você poderá ver que ele esta instalado e configurado.

Instalação do libderby-java:

```
maycon@maycon-Inspiron-3584:~$ sudo apt install libderby-java
[sudo] senha para maycon:
Lendo listas de pacotes... Pronto
Construindo árvore de dependências... Pronto
Lendo informação de estado... Pronto
libderby-java já é a versão mais recente (10.14.2.0-2).
Os seguintes pacotes foram instalados automaticamente e já não são necessários:
  libflashrom1 libftdi1-2
Utilize 'sudo apt autoremove' para os remover.
0 pacotes atualizados, 0 pacotes novos instalados, 0 a serem removidos e 10 não atualizados.
maycon@maycon-Inspiron-3584:~$
```

## Seção 4: instalação do tutorial JDBC

tutorial baixado e instalado.

```
maycon@maycon-Inspiron-3584:~/5Periodo/BD2/JDBCTutorial$ ls
build.xml  classes  derby.log  lib  properties  sql  src  testdb  txt  xml
maycon@maycon-Inspiron-3584:~/5Periodo/BD2/JDBCTutorial$
```

## seção 5: configuração do tutorial JDBC

passo: 3

```
maycon@maycon-Inspiron-3584:~/5Periodo/BD2/JDBCTutorial/properties$ cat javadb-build-properties.xml
<?xml version="1.0" encoding="UTF-8" ?>

<project name="Java DB Properties" default="all" basedir=". ">

    <property name="JAVAC" value="/usr/lib/jvm/java-17-openjdk-amd64/bin/javac"/>
    <property name="JAVA" value="/usr/lib/jvm/java-17-openjdk-amd64/bin/java"/>

    <property name="PROPERTIESFILE" value="properties/javadb-sample-properties.xml"/>
    <property name="JAVADBDRIVER" value="/usr/share/java/derby.jar"/>
    <property name="XALANDIRECTORY" value="/usr/bin"/>

    <path id="XALAN">
        <pathelement location="{XALANDIRECTORY}/xalan.jar"/>
    </path>

    <path id="CLASSPATH">
        <pathelement location="classes"/>
        <pathelement location="{JAVADBDRIVER}"/>
        <pathelement location="lib/JDBCTutorial.jar"/>
        <path refid="XALAN"/>
    </path>

    <property name="DB.VENDOR" value="javadb"/>
    <property name="DB.DRIVER" value="org.apache.derby.jdbc.EmbeddedDriver"/>
    <property name="DB.HOST" value="localhost"/>
    <property name="DB.PORT" value="3306"/>
    <property name="DB.SID" value="testdb"/>
    <property name="DB.URL" value="jdbc:derby:{DB.SID};create=true;"/>
    <property name="DB.USER" value=""/>
    <property name="DB.PASSWORD" value=""/>
    <property name="DB.DELIMITER" value=";"/>

</project>
```

passo 4

```
maycon@maycon-Inspiron-3584:~/5Periodo/BD2/JDBCTutorial/properties$ cat javadb-sample-properties.xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE properties SYSTEM "http://java.sun.com/dtd/properties.dtd">
<properties>

    <entry key="dbms">derby</entry>
    <entry key="jar_file">/home/maycon/5Periodo/BD2/JDBCTutorial/lib/JDBCTutorial.jar</entry>
    <entry key="driver">org.apache.derby.jdbc.EmbeddedDriver</entry>
    <entry key="database_name">testdb</entry>
    <entry key="user_name"></entry>
    <entry key="password"></entry>
    <entry key="server_name">localhost</entry>
    <entry key="port_number">3306</entry>

</properties>
maycon@maycon-Inspiron-3584:~/5Periodo/BD2/JDBCTutorial/properties$
```

## Seção 6: Execução do tutorial JDBC

passo 1: cd JDBCTutorial

```
maycon@maycon-Inspiron-3584:~/5Periodo/BD2/JDBCTutorial$
```

passo 2: ant jar

```
maycon@maycon-Inspiron-3584:~/5Periodo/BD2/JDBCTutorial$ ant jar
Buildfile: /home/maycon/5Periodo/BD2/JDBCTutorial/build.xml

compile:
  [echo] JDBC Tutorial is using /usr/lib/jvm/java-17-openjdk-amd64/bin/javac as Java compiler

jar:

BUILD SUCCESSFUL
Total time: 0 seconds
```

passo 3: ant setup

```
maycon@maycon-Inspiron-3584:~/5Periodo/BD2/JDBCTutorial$ ant setup
Buildfile: /home/maycon/5Periodo/BD2/JDBCTutorial/build.xml

setup:

drop-tables:
  [sql] Executing resource: /home/maycon/5Periodo/BD2/JDBCTutorial/sql/javadb/drop-tables.sql
  [sql] Failed to execute: DROP TABLE COFFEE_DESCRIPTIONS
  [sql] java.sql.SQLException: 'DROP TABLE' não pode ser realizado em 'COFFEE_DESCRIPTIONS', porque 'COFFEE_DESCRIPTIONS' não existe.
  [sql] Failed to execute: DROP TABLE COFFEE_HOUSES
  [sql] java.sql.SQLException: 'DROP TABLE' não pode ser realizado em 'COFFEE_HOUSES', porque 'COFFEE_HOUSES' não existe.
  [sql] Failed to execute: DROP TABLE MERCH_INVENTORY
  [sql] java.sql.SQLException: 'DROP TABLE' não pode ser realizado em 'MERCH_INVENTORY', porque 'MERCH_INVENTORY' não existe.
  [sql] Failed to execute: DROP TABLE COF_INVENTORY
  [sql] java.sql.SQLException: 'DROP TABLE' não pode ser realizado em 'COF_INVENTORY', porque 'COF_INVENTORY' não existe.
  [sql] Failed to execute: DROP TABLE RSS_FEEDS
  [sql] java.sql.SQLException: 'DROP TABLE' não pode ser realizado em 'RSS_FEEDS', porque 'RSS_FEEDS' não existe.
  [sql] Failed to execute: DROP TABLE COFFEES
  [sql] java.sql.SQLException: 'DROP TABLE' não pode ser realizado em 'COFFEES', porque 'COFFEES' não existe.
  [sql] Failed to execute: DROP TABLE SUPPLIERS
  [sql] java.sql.SQLException: 'DROP TABLE' não pode ser realizado em 'SUPPLIERS', porque 'SUPPLIERS' não existe.
  [sql] Failed to execute: DROP TABLE DATA_REPOSITORY
  [sql] java.sql.SQLException: 'DROP TABLE' não pode ser realizado em 'DATA_REPOSITORY', porque 'DATA_REPOSITORY' não existe.
  [sql] 0 of 8 SQL statements executed successfully

build-tables:
  [sql] Executing resource: /home/maycon/5Periodo/BD2/JDBCTutorial/sql/javadb/create-tables.sql
```

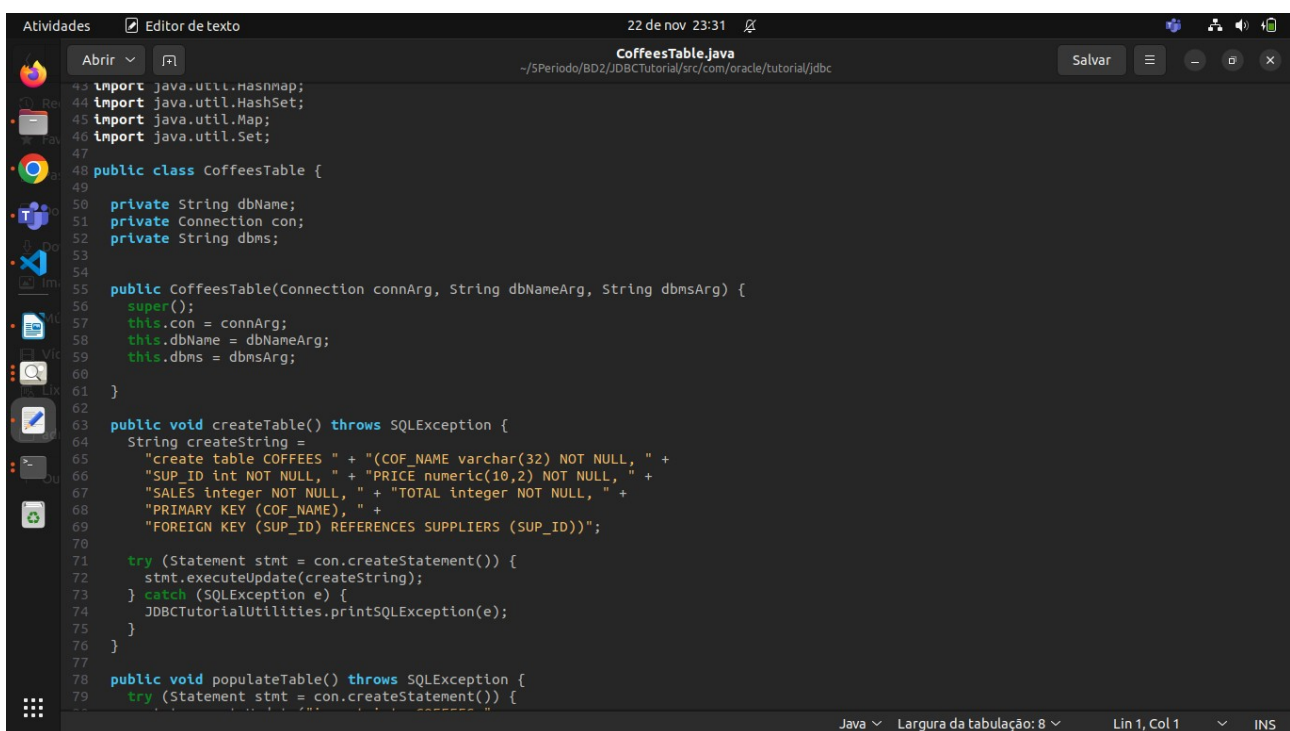
passo 4: ant runc

```
maycon@maycon-Inspiron-3584:~/5Periodo/BD2/JDBCTutorial$ ant runcnt
Buildfile: /home/maycon/5Periodo/BD2/JDBCTutorial/build.xml
```

runcnt:

```
[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
[java] French_Roast_Decaf, 49, 12.48, 0, 0
[java] Kona, 150, 10.98, 0, 0
[java]
[java] Updating sales of coffee per week:
[java] Colombian, 101, 9.98, 175, 175
[java] French_Roast, 49, 11.23, 150, 150
[java] Espresso, 150, 12.48, 60, 60
[java] Colombian_Decaf, 101, 11.23, 155, 155
[java] French_Roast_Decaf, 49, 12.48, 90, 90
[java] Kona, 150, 10.98, 0, 0
```

passo 5: gedit src/com/oracle/tutorial/jdbc/CoffeesTable.java



```
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CoffeesTable.java
~/5Periodo/BD2/JDBCTutorial/src/com/oracle/tutorial/jdbc

43 import java.util.HashMap;
44 import java.util.HashSet;
45 import java.util.Map;
46 import java.util.Set;
47
48 public class CoffeesTable {
49
50     private String dbName;
51     private Connection con;
52     private String dbms;
53
54
55     public CoffeesTable(Connection connArg, String dbNameArg, String dbmsArg) {
56         super();
57         this.con = connArg;
58         this.dbName = dbNameArg;
59         this.dbms = dbmsArg;
60
61     }
62
63     public void createTable() throws SQLException {
64         String createString =
65             "create table COFFEES " + "(COF_NAME varchar(32) NOT NULL, " +
66             "SUP_ID int NOT NULL, " + "PRICE numeric(10,2) NOT NULL, " +
67             "SALES integer NOT NULL, " + "TOTAL integer NOT NULL, " +
68             "PRIMARY KEY (COF_NAME), " +
69             "FOREIGN KEY (SUP_ID) REFERENCES SUPPLIERS (SUP_ID))";
70
71         try (Statement stmt = con.createStatement()) {
72             stmt.executeUpdate(createString);
73         } catch (SQLException e) {
74             JDBCTutorialUtilities.printStackTrace(e);
75         }
76     }
77
78     public void populateTable() throws SQLException {
79         try (Statement stmt = con.createStatement()) {
```

passo 6: gedit build.xml



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build.xml ~/SPeríodo/BD2/JDBCTutorial Salvar

CoffeesTable.java build.xml

```
30 NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS
31 SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
32
33
34 <project name="JDBC Tutorial" default="all" basedir=".">
35   <!-- <property name="ANTPROPERTIES" value="properties/javadb-build-properties.xml"/> -->
36   <property name="ANTPROPERTIES" value="properties/javadb-build-properties.xml"/>
37   <import file="${ANTPROPERTIES}"/>
38
39
40   <target name="clean">
41     <delete dir="classes"/>
42     <delete dir="lib"/>
43   </target>
44
45   <target name="zip" description="Package source in zip file">
46     <delete file="./JDBCTutorial.zip"/>
47     <zip destfile="./JDBCTutorial.zip">
48       <zipfileset dir="sql" prefix="sql"/>
49       <zipfileset dir="src" prefix="src"/>
50       <zipfileset dir="properties" prefix="properties"/>
51       <zipfileset dir="." includes="build.xml"/>
52     </zip>
53   </target>
54
55   <target name="compile" description="Compile JDBC Tutorial">
56     <mkdir dir="classes"/>
57     <echo message="JDBC Tutorial is using ${JAVAC} as Java compiler"/>
58     <javac srcdir="src" destdir="classes" fork="yes" executable="${JAVAC}"
59       classpathref="CLASSPATH" debug="on" includeantruntime="false">
60       <compilerarg value="-Xlint:unchecked"/>
61       <compilerarg value="-Xlint:deprecation"/>
62     </javac>
63   </target>
64
```

XML Largura da tabulação: 8 Lin 36, Col 79 INS