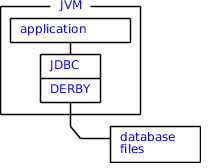
# DERBY系列4-嵌入式Derby



## 介绍

DB是基于JVM下的嵌入式程序，已嵌入的方式进行，所以，DERBY能在任何JVM下的程序下应用，以下是他的嵌入流程



# 步骤(将以SIMPLEAPP.JAVA为例子)

一个基础的DB嵌入式程序模式应当具备以下实现步骤

|  |
| --- |
| 启动DB引擎 |
| 创建链接数据源 |
| 创建表 |
| 插入数据/更新数据/查询数据/删除数据 |
| 失去连接 |
| 关闭DB |

## 加载嵌入式JDBC装载器

|  |
| --- |
| public String driveer = ‘org.apache.derby.jdbc.EmbeddedDriver’; |
| Class.forName(driver).newInstance(); |

## 获取嵌入式连接

|  |
| --- |
| Public String protocol =”jdbc：derby:”; |
| Conn =DriverManager.getConnection(prorocol+”derbyDB;create=true”,props); |
| jdbc:derby:derbyDB;create=true |

## 关闭DB

清空DB是必要的步骤，但如果你不关闭也没什么，只是当你打开下一个连接时，DB运行时会变慢，所以加上关闭是有必要的步骤

|  |
| --- |
| DriverManager.getConnection("jdbc:derby:MyDbTest;shutdown=true"); |
| DriverManager.getConnection("jdbc:derby:;shutdown=true"); |

# 结果

当你成功运行SIMPLEAPP时，你可以看到以下结果

|  |
| --- |
| SimpleApp starting in embedded mode.  Loaded the appropriate driver.  Connected to and created database derbyDB  Created table derbyDB  Inserted 1956 Webster  Inserted 1910 Union  Updated 1956 Webster to 180 Grand  Updated 180 Grand to 300 Lakeshore  Verified the rows  Dropped table derbyDB  Closed result set and statement  Committed transaction and closed connection  Database shut down normally  SimpleApp finished |

这说明一个DB基本的数据库已经创建完成

# 错误解决

当你出现如下错误是，显示未找到类，你可以通过配置嵌入式derby来进行修复错误

|  |
| --- |
| java SimpleApp SimpleApp starting in embedded mode. exception thrown: java.lang.ClassNotFoundException: org.apache.derby.jdbc.EmbeddedDriver at java.net.URLClassLoader$1.run(URLClassLoader.java:199) at java.security.AccessController.doPrivileged(Native Method) at java.net.URLClassLoader.findClass(URLClassLoader.java:187) at java.lang.ClassLoader.loadClass(ClassLoader.java:289) at sun.misc.Launcher$AppClassLoader.loadClass(Launcher.java:274) at java.lang.ClassLoader.loadClass(ClassLoader.java:235) at java.lang.ClassLoader.loadClassInternal(ClassLoader.java:302) at java.lang.Class.forName0(Native Method) at java.lang.Class.forName(Class.java:141) at SimpleApp.go(SimpleApp.java:77) at SimpleApp.main(SimpleApp.java:61) SimpleApp finished |

当你出现以下错误时

|  |
| --- |
| java SimpleApp SimpleApp  starting in embedded mode  Loaded the appropriate driver  ----- SQLException -----  SQL State: XJ040  Error Code: 40000  Message: Failed to start database 'derbyDB', see the next exception for details.  ----- SQLException -----  SQL State: XSDB6  Error Code: 45000  Message: Another instance of Derby may have already booted the database C:\Apache\db-derby-10.4.1.3-bin\tutorial\derbyDB. SimpleApp finished |

SIMPLEAPP建立错误,可能的原因是在其他应用程序已经连接了DB数据库，尝试去关闭进程再重新启动程序即可

或者是IJ 和应用程序建立在不同的JVMS下引起的错误，