<JSTORM>

Object Pool   JDBC Connection Pool
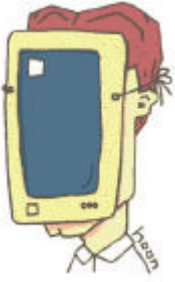
Document Information

Document title:	JAVA XML
Document file name:	DBPool_ .doc
Revision number:	<1.0>
Issued by:	< > kanaloa@orgio.net
	: < > junoyoon@orgio.net
Issue Date:	<2000/8/03 >
Status:	Draft

Content Information

Audience	JAVA DB
	,
Abstract	Object Pool pool
	JDBC connection pool
Reference	www.javaword.com .
Benchmark information	

Document Approvals

	Signature	date
	Signature	date

.

Revision History

Revision	Date	Author	Description of change

Table of Contents

Object Pool

JDBC Connection Pool

Part one of a two-part series

By Wiebe de Jong

:

.

.

,

.   (time- share)

.   ,   ,

.

.

database connection   ,   database
connection pool   connection   .
Object Pool   pool   JDBC
connection pool   .

Basic Object Pool Pattern

object pool   pool
                               (control structure)   .
                          .   ,
                                            .   pool   ,
                               pool   ,
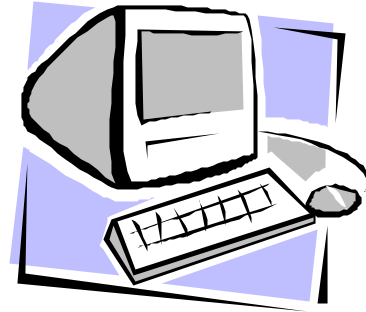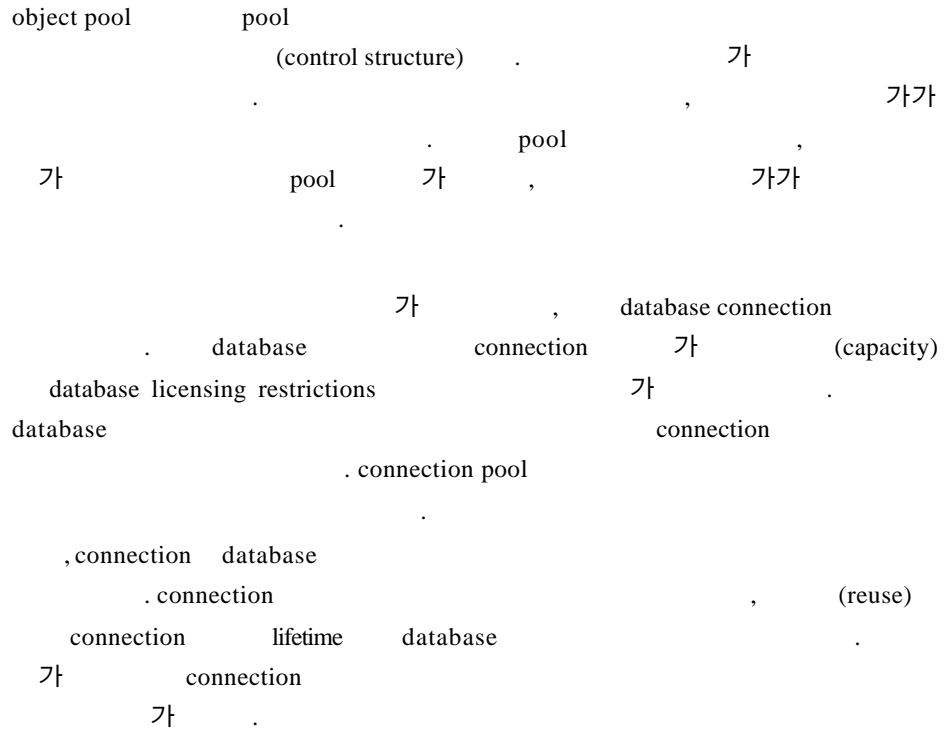   .

                                                            ,   database connection
                    .   database   connection   (capacity)
        database licensing restrictions   .
database   connection
                                    . connection pool
                          .

        , connection   database
                    . connection   ,   (reuse)
            connection   lifetime   database   .
                    connection
                          .

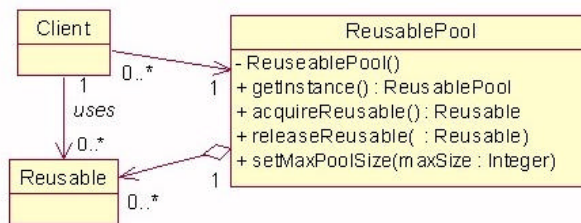Mark Grand   Object Pool   '*Patterns in Java, Volume I*'
'Pattern Summaries: Object Pool'   . UML
        1   .

1 ReusablePool

Reusable, ReusablePool,   Client   3   .
                                                    Reusable   .

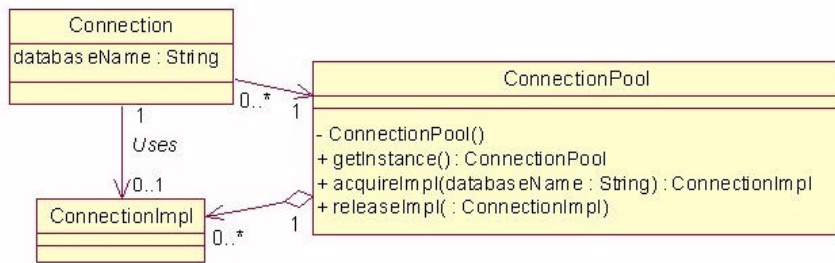ReusablePool   pool   ,   Reusable
(aggregate)   (contain)   .

                ,   Client   ReusablePool   (acquire)
            (release)   .

ReusablePool   Singleton   .   1
                                    2   . ReusablePool
(association)   .   , ReusablePool   private   ,
`getInstance()`   .   Singleton   ,
'Global Variables in Java with the Singleton Pattern'   .

Client   Reusable   (access)   ReusablePool
                . Client   ,   Client   Reusable
        access   .   Reusable   pool   (maximum
size)   .

Connection Pool Pattern

Grand   Object Pool Pattern   Connection
Pool Management   .
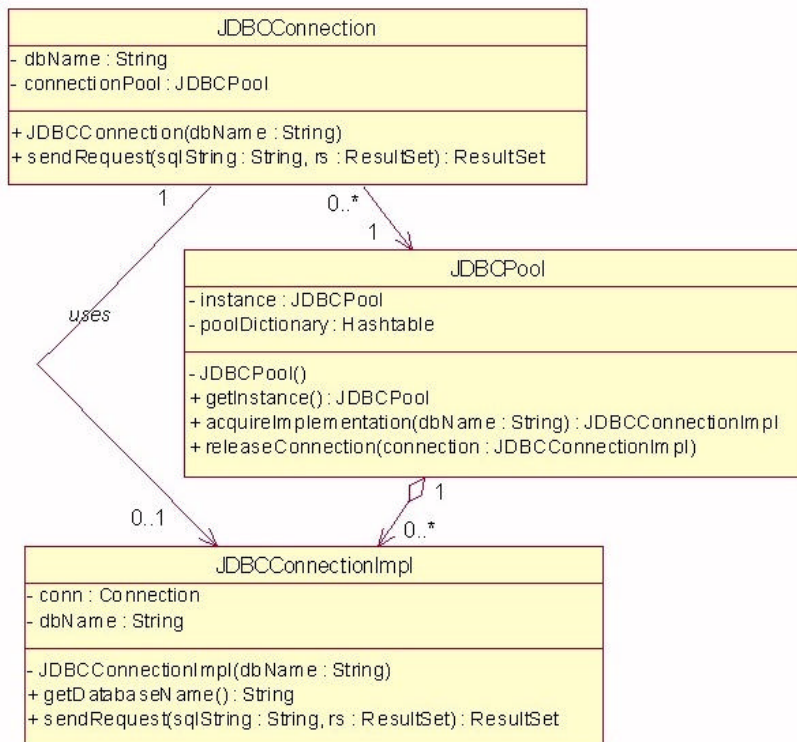

2 ConnectionPool

database connection   database   (logic)   (encap-
sulate)   Connection   .`databaseName`   database
                    (identifier)   ,   `ConnectionImpl`
                        .   1   2   UML
    Connection   1   `ConnectionImpl`   .
        database connection   ,
    .

                                , Connection   ConnectionPool   `ConnectionImpl`
        . Connection   ,   pool   .   pool
        ,   pool   `ConnectionImpl`   .

ConnectionImpl   maxPoolSize   , pool

ConnectionImpl   ,   .

ConnectionImpl   pool   .

,

.

,acquireImpl()   (exception)

.   ,

.

maxPoolSize   ,

.

The JDBC Connection Pool

connection pool   database connection   ,

.

3 JDBCPool

,

.   connection   release   , release

?   3   JDBCConnection

pool

.

JDBCConnection   database   (gateway)

.   Listing 1   . JDBCConnection

, database   dbName

connection pool   .   JDBCConnectionImpl

.   database   ,

JDBCConnectionImpl   dbName   .

.

Listing 1 JDBCConnection

SQL   ResultSet   sendRequest()

database   .   , ResultSet

.   ResultSet

.

sendRequest()   JDBCConnectionImpl   connection pool

.   Listing 2   sqlString   resultSet

sendRequest()   (matching)   JDBCConnectionImpl

.   resultSet   , JDBCConnectionImpl   pool   release

, resultSet   .

Listing 2 JDBCConnectionImpl and JDBCPool

update   stored procedure   database

,   JDBCConnection   sendUpdate()   callProcedure()

.   JDBCConnectionImpl

.   .

connection   JDBCConnection-

Impl   private   .   JDBCPool

JDBCConnectionImpl   .

acquireImpl()   database connection

, JDBCPool   dbName   ,   JDBCConnectionImpl

vector   private   dictionary   dbName

.   , vector   .   connection

JDBCConnectionImpl   .

vector   JDBCConnectionImpl   vector   ,
                JDBCConnection   .

JDBCConnection   JDBCConnectionImpl   ,
releaseImpl()   pool   .JDBCConnectionImpl
          database   dbName   ,   dbName
       connection   vector   .   pool
                    , vector   null   .   object
vector   dictionary   .   vector
          ,   vector   .

Conclusion

                                                                                        ,
                                    .

                    . softwa re   database connection   .
Connection Pool   . java   database
connection   JDBC   JDBC Connection Pool
     .

                                    pool   . maxSize
                        , update   stored procedure   .
database shutdown   ,
(robust)   .

                    e-mail   .

About the Author

    With over thirteen years' experience in application development, Wiebe de Jong is a
    Web developer for IMRglobal Ltd. in Vancouver, BC, Canada. He develops Internet
    and intranet applications for clients using Java, UML, and XML. He also teaches.

        :
-    2000-08   4
-                        Jstorm   DB   .