Database support in DdlUtils

DdlUtils accesses databases via JDBC, esp. the metadata that JDBC provides, as well as by accessing database specific tables and performin database specific SQL. The details of the latter can be found in the support documentation for the individual databases.

The main source of information about JDBC is the JDBC Specification, currently for JDBC version 3. General information about the JDBC datatypes can also be found in Chapter 9: Mapping SQL and Java Types of the JDBC Technology Guide: Getting Started. Please also note that some JDBC types are only available in recent versions of the Java platform, e.g. the `BOOLEAN` type is only available since J2SE version 1.4. These will be usable with DdlUtils only if you're running the respective Java version or a newer one.

Here is a short summary of the information about the JDBC data types:

JDBC data type	Format, Range, Size	Comments
ARRAY		Represents an array
BIGINT	-9223372036854775808 to 9223372036854775807	64 bit signed integer
BINARY	254 bytes	
BIT	0, 1	
BLOB		
BOOLEAN	true, false	Java 1.4 and above
CHAR	254 (8-bit characters)	
CLOB		
DATALINK		Java 1.4 and above. References a file outside of the database but that is managed by it. Maps to `java.net.URL`
DATE	year, month, day	
DECIMAL	15 for precision (total number of digits) and for scale (number of digits after the decimal point)	
DISTINCT		Represents a distinct value,

		totally implementation dependent
DOUBLE	15 bits of mantissa (fractional part)	
FLOAT	15 bits of mantissa (fractional part)	
INTEGER	-2147483648 to 2147483647	32 bit signed integer
JAVA_OBJECT		Represents an java object, usually a serialized one
LONGVARBINARY	1 GB	
LONGVARCHAR	1 GB (8-bit characters)	
NULL		Is not specified in detail
NUMERIC	15 for precision (total number of digits) and for scale (number of digits after the decimal point)	
OTHER		Entirely database-specific type
REAL	7 bits of mantissa (fractional part)	
REF		Represents a reference to an instance of a SQL structured type. Maps to `java.sql.Ref`.
SMALLINT	-32768 to 32767	16 bit signed integer
STRUCT		Represents a structured type, usually created via CREATE TYPE. Maps to `java.sql.Struct`.
TIME	hours, minutes, seconds	
TIMESTAMP	year, month, day, hours, minutes, seconds, nanoseconds	
TINYINT	-128 to 127 (8 bit signed) or 0 to 254 (8 bit unsigned)	8 bit signed or unsigned integer
VARBINARY	254 bytes	
VARCHAR	254 bytes (8-bit characters)	