JDBC Driver

2.0 Driver

In order to connect a Java application to a database using JDBC, we need to use a JDBC driver. This driver acts as an intermediary between your application and the database. There are actually several types of JDBC drivers available, we need to choose the one that best suits our particular circumstances.

2.1 Types of Driver

Driver Type Code	Explanation	Comment
1	The JDBC/ODBC bridge driver	A piece of native code that translates a JDBC call to an ODBC call. Note that you have to have an ODBC database driver manager + an ODBC database driver installed on the server in addition to the JDBC/ODBC bridge. This driver allows access to almost all the databases since ODBC's drivers are already available. Use this driver for development, not for industrial-strength application environments.
2	Native API partly java driver	A piece of native code that translates a java JDBC call to a native database call level API. Due to its native code, this driver can only be used by Java Applications with full computer access (i.e. not Applets). This type of driver provides better performance comapring to type 1 since the communication layer is less. Use this driver for development and deployment
3	JDBC-Net pure Java driver	A piece of pure java code that translates an incoming JDBC call to an outgoing database Net protocol call (such as SQL*Net). Flexible and powerful, this driver can be used by any Java component and requires only connect access to work. Use this driver for development and deployment. This type of driver provides specific features like caching, load balancing since middle ware component is involved such as server.
4	Native protocol pure Java driver	A piece of pure java code that translates an incoming JDBC call to an outgoing database native protocol call (such as Oracle CLI). This driver type is the recommended one for server-side java development unless a type 2 driver has considerable performance advantages. Use this driver for development and deployment. No need to install any special software on client or server. Most suitable for web.

2.2 References

http://www.tutorialspoint.com/jdbc/jdbc-driver-types.htm - Explain the types of driver

http://www.jdbc-tutorial.com/jdbc-driver-types.htm - Explain the types of driver and Pros and Cons for each driver