ICON OF JAVA

ADV. JAVA

JDBC

4.. Driver and Driver Types

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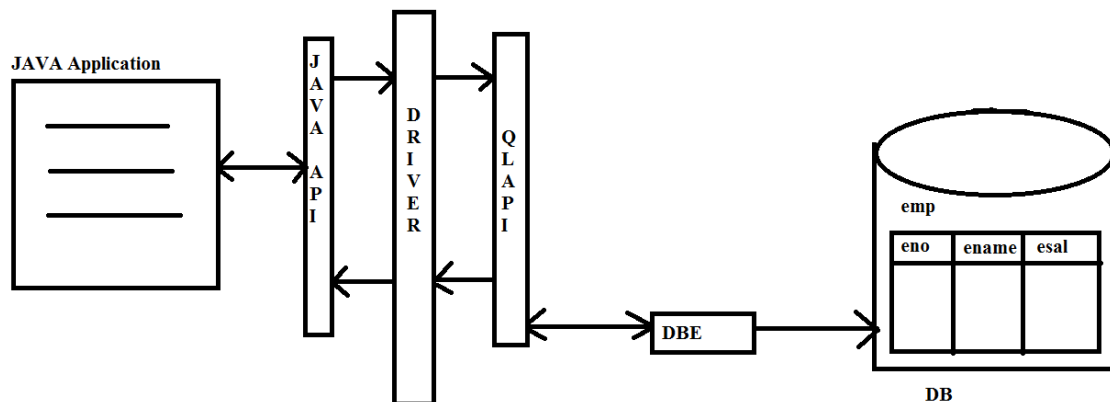**www.durgasoft.com Ph: 9246212143 ,8096969696**

Driver and Driver Types

1) Type 1 Driver

2) Type 2 Driver

3) Type 3 Driver
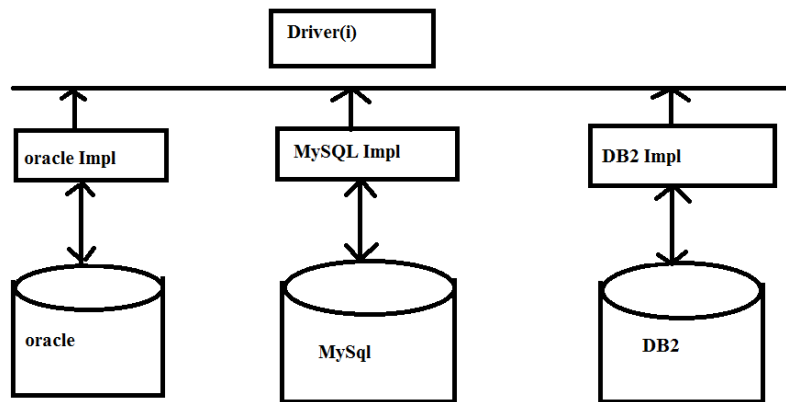
4) Type 4 Driver

Driver:

-->Driver is an interface existed between Java application and database to map Java API calls to Query language API calls and Query language API calls to Java API calls.

-->To provide driver as a product Sun MicroSystems has provided Driver as an interface and Sun MicroSystems.lets the database vendors to provide implementation classes to the driver interface as part of their database software's.

-->If we want to use Drivers in JDBC applications then we have to get Driver implementation from the respective database software's.

-->There are 180+ number of drivers but all these drivers could be classified into the following four types
1)Type 1
2)Type 2
3)Type 3
4)Type 4

1) Type 1 Driver:

-->Type 1 Driver is also called as JDBC-ODBC Driver and Bridge Driver.

-->JDBC-ODBC Driver is a driver provided by Sun Micro Systems as an Implementation to Driver Interface.

-->Sun MicroSystems has provided JDBC-ODBC Driver with the inter dependent on the Microsoft's productODBC Driver.

-->ODBC Driver is a Open Specification,it will provide very good environment to interact with any type of database from JDBC-ODBC Driver.

-->If we want to use JDBC-ODBC Driver in our JDBC Applications first we have to install the MicroSoft Product ODBC Driver native library.

-->To interact with the database from Java Application if we use JDBC-ODBC Driver then we shouldrequire two types conversions so that JDBC-ODBC Driver is Slower Driver.
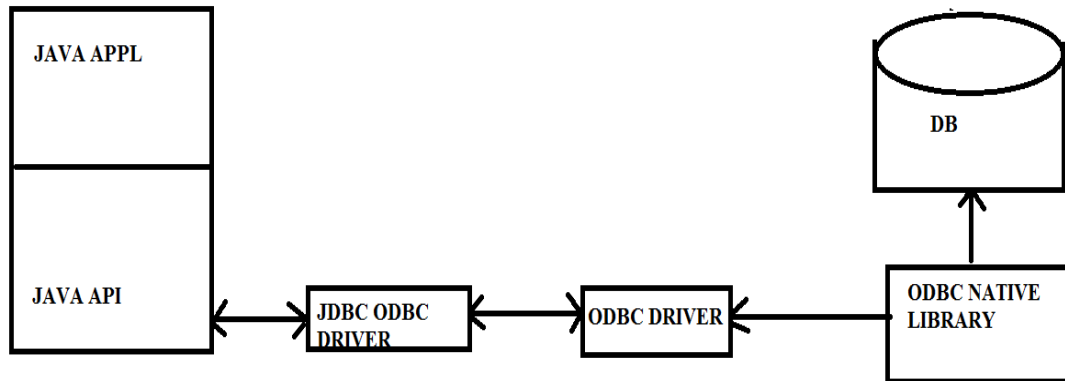
-->JDBC-ODBC Driver is highly recommended for stand alone applications,it is not suitable for web applications,distributed applications and so on.

-->JDBC-ODBC Driver is suggestable for Simple JDBC applications,not for complex JDBC applications.

-->The portability of the JDBC-ODBC Driver is very less.

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2)Type 2 Driver:

-->Type 2 Driver is also called part java,part native driver that is Type 2 Driver was implemented by using Java implementations and the database vendor provided native library.

-->When compared to Type1 Driver Type2 Driver is faster Driver because it should not require two times conversions to interact with the Database from Java Applications.
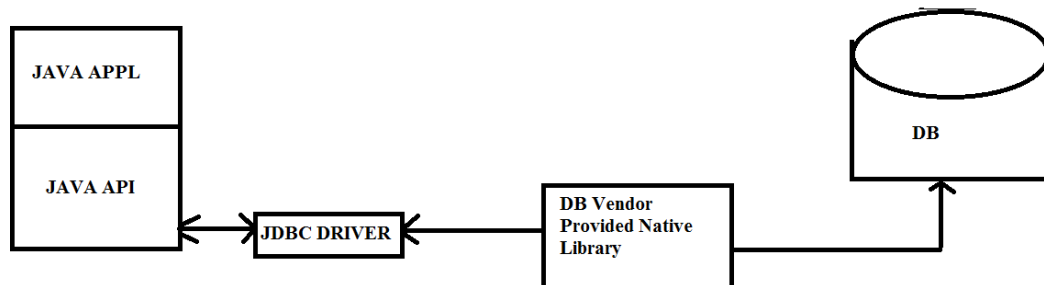
-->When compared to Type1 Driver Type2 driver portability is more.

-->Type2 Driver is still recommended for standalone application not suggestible for web applications and Enterprise applications.

-->If we want to use Type2 Driver in our Jdbc applications then we have to install the database vendor provided native library.

-->Type2 Driver is cast full Driver among all the drivers.

-->Type2 Driver's portability is not good when compared to Type3 Driver and Type4 Driver.

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3) Type 3 Driver:

-->Type 3 Driver is also called as MiddleWare DataBase Server Access Driver and NetWorkDriver.

-->Type 3 Driver is purely designed for Enterprise applications it is not suggestible for stand alone applications.
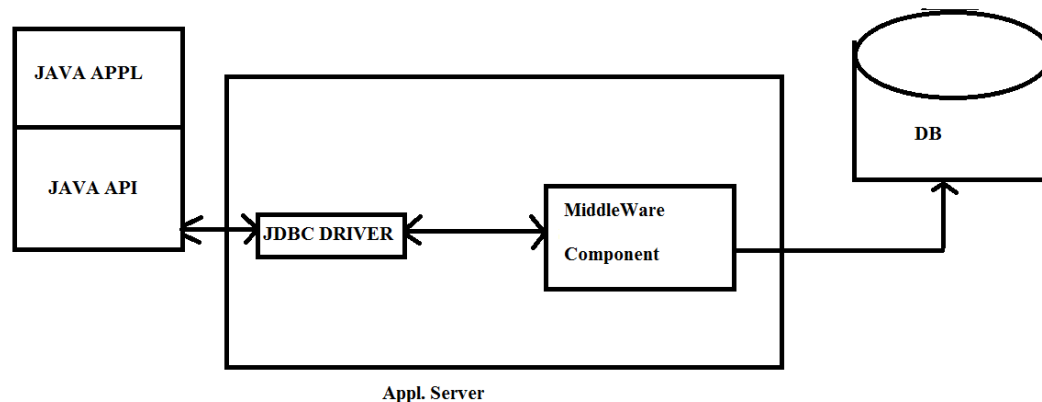
-->Type 3 Driver portability is very good when compared to Type1 and Type2 Driver's.

-->Type 3 Driver will provide very good environment to interact with multiple no.of databases.

-->Type 3 Driver will provide very good environment to switch from one database to another database without having modifications in client applications.

-->Type 3 Driver should not require any native library installations, it should require the Compatibility with the application server.

-->Type 3 Driver is fastest Driver when compared to all the Drivers.

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┌──────────────┐       ┌──────────────────────────────────────────┐        _____
│  JAVA APPL   │       │                                          │       /          /│
│              │       │                                          │      (    DB     ) │
├──────────────┤       │   ┌─────────────┐     ┌──────────────┐   │      |          | │
│              │◄──────┼──►│ JDBC DRIVER │◄───►│  MiddleWare  │   │      |          |/
│  JAVA API    │       │   └─────────────┘     │  Component   │───┼─────►
│              │       │                       └──────────────┘   │
└──────────────┘       │                                          │
                       └──────────────────────────────────────────┘
                                    Appl. Server
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4) Type 4 Driver:

-->Type 4 Driver is also called as pure Java Driver and Thin Driver because Type 4 Driver was implemented completely by using java implementations.
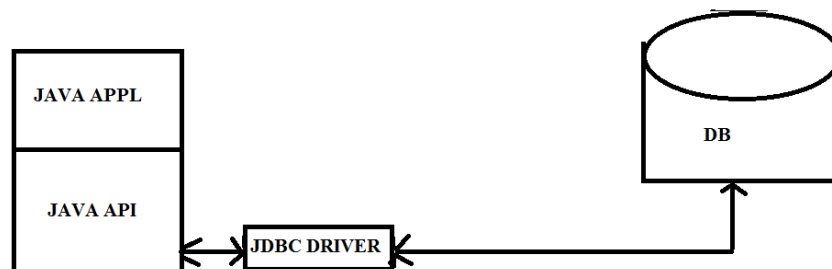
-->Type 4 Driver is the frequent used Driver when compared to all the remaining Drivers.

-->Type 4 Driver is recommended for any type application includes standalone applications, Network Applications....

-->Type 4 Driver portability is very good when compared to all the remaining Drivers.

-->Type 4 driver should not require any native library dependences and it should require one time conversion to interact with database from Java Applications.

-->Type 4 is the cheapest Driver among all.

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