



Unit – 07: Database connectivity using JDBC driver Interface

- JDBC – JDVC Architecture – classes interfaces and drivers related to JDBC – connectivity to database using JDBC.

Questions to be discussed:

1. What do you mean by JDBC? Explain it.
2. Discuss the steps required to connecting database using JDBC.

What is an API?

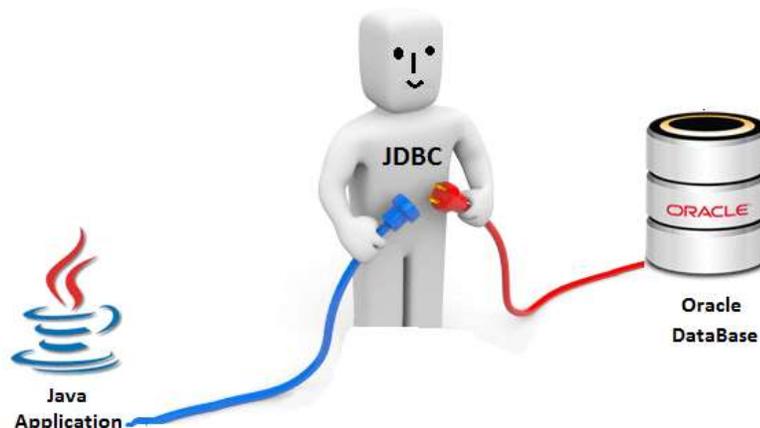
- API stands for Application Program Interface.
- It is a software intermediary that allows two applications to talk to each other.
- Each time you use an app like Facebook, send an instant message, or check the weather on your phone, you're using an API.
- There are three types of API.
 1. ODBC(Open Database Connectivity)
 2. OLE DB(Object Linking and Embedding)
 3. JDBC(Java Database Connectivity)

These APIs allow to connecting the application to a database in order to access data.

- The main difference between ODBC, OLEDB and JDBC is that:
- The ODBC is an API developed by Microsoft to access relational databases and
- OLEDB is an API developed by Microsoft to access both relational and non-relational databases.
- While JDBC is an API developed by Oracle to access the relational and non-relational database.

Java JDBC Tutorial

- JDBC stands for Java Database Connectivity.
- JDBC is a Java API to connect and execute the query with the database.
- Before JDBC, ODBC API was the database API to connect and execute the query with the database.
- But, ODBC API uses ODBC driver which is written in C language (platform dependent and unsecured).
- That is why Java has defined its own API (JDBC API) that uses JDBC drivers (written in Java language).
- JDBC API uses JDBC drivers to connect with the database. ★
- It acts as a bridge from your code to the database.
- JDBC Released as part of JDK 1.1 in 1997.



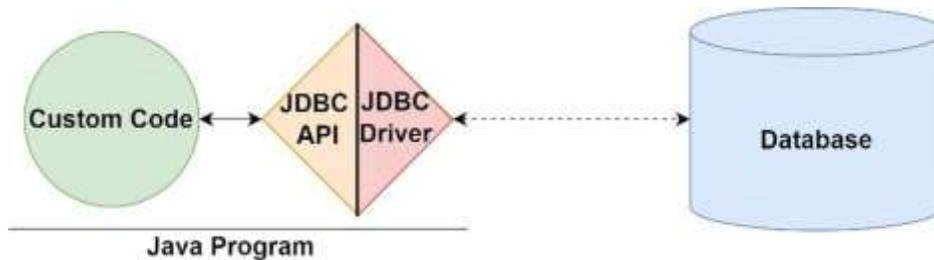
Uses of JDBC:

We can use JDBC API to handle database using Java program and can perform the following activities:

1. Connect to the database
2. Execute queries and update statements to the database
3. Retrieve the result received from the database.

JDBC's architecture:

- The JDBC interface consists of two layers:
 1. The JDBC API supports communication between the Java application and the JDBC manager.
 2. The JDBC driver supports communication between the JDBC manager and the database driver.



JDBC – connectivity to database using JDBC.

- The steps for connecting to a database with JDBC are as follows:
 1. Install or locate the database you want to access.
 2. Include the JDBC library.
 3. Ensure the JDBC driver you need is on your classpath.
 4. Use the JDBC library to obtain a connection to the database.
 5. Use the connection to issue SQL commands.
 6. Close the connection when you are finished.

Java Database Connectivity

