

Java DatabaseMetaData interface

DatabaseMetaData interface provides methods to get meta data of a database such as database product name, database product version, driver name, name of total number of tables, name of total number of views etc.

Commonly used methods of DatabaseMetaData interface

- **public String getDriverName()throws SQLException:** it returns the name of the JDBC driver.
- **public String getDriverVersion()throws SQLException:** it returns the version number of the JDBC driver.
- **public String getUsername()throws SQLException:** it returns the username of the database.
- **public String getDatabaseProductName()throws SQLException:** it returns the product name of the database.
- **public String getDatabaseProductVersion()throws SQLException:** it returns the product version of the database.
- **public ResultSet getTables(String catalog, String schemaPattern, String tableNamePattern, String[] types)throws SQLException:** it returns the description of the tables of the specified catalog. The table type can be TABLE, VIEW, ALIAS, SYSTEM TABLE, SYNONYM etc.

How to get the object of DatabaseMetaData:

The getMetaData() method of Connection interface returns the object of DatabaseMetaData. Syntax:

```
public DatabaseMetaData getMetaData()throws SQLException
```

Simple Example of DatabaseMetaData interface :

```
import java.sql.*;

class Dbmd{

public static void main(String args[]){

try{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection(
"jdbc:oracle:thin:@localhost:1521:xe","system","oracle");

DatabaseMetaData dbmd=con.getMetaData();

System.out.println("Driver Name: "+dbmd.getDriverName());
System.out.println("Driver Version: "+dbmd.getDriverVersion());
System.out.println("UserName: "+dbmd.getUserName());
System.out.println("Database Product Name: "+dbmd.getDatabaseProductName());
System.out.println("Database Product Version: "+dbmd.getDatabaseProductVersion());
```

```
con.close();
}catch(Exception e){ System.out.println(e);}
}
}
```

```
Output:Driver Name: Oracle JDBC Driver
       Driver Version: 10.2.0.1.0XE
       Database Product Name: Oracle
       Database Product Version: Oracle Database 10g Express Edition
                                   Release 10.2.0.1.0 -Production
```

[download this example](#)

Example of DatabaseMetaData interface that prints total number of tables :

```
import java.sql.*;
class Dbmd2{
public static void main(String args[]){
try{
Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection(
"jdbc:oracle:thin:@localhost:1521:xe","system","oracle");

DatabaseMetaData dbmd=con.getMetaData();
String table[]={TABLE};
ResultSet rs=dbmd.getTables(null,null,null,table);

while(rs.next()){
System.out.println(rs.getString(3));
}

con.close();

}catch(Exception e){ System.out.println(e);}

}
}
```

[download this example](#)

Example of DatabaseMetaData interface that prints total number of views :

```
import java.sql.*;

class Dbmd3{

public static void main(String args[]){

try{

Class.forName("oracle.jdbc.driver.OracleDriver");


Connection con=DriverManager.getConnection(
"jdbc:oracle:thin:@localhost:1521:xe","system","oracle");


DatabaseMetaData dbmd=con.getMetaData();

String table[]={"VIEW"};

ResultSet rs=dbmd.getTables(null,null,null,table);


while(rs.next()){

System.out.println(rs.getString(3));

}


con.close();

}catch(Exception e){ System.out.println(e);}


}

}
```