

# Connecting to a Database

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## What's in This Module



**JDBC URL**

**Initial connection to database**



```
String url = "jdbc:mysql://localhost:3306/loboticket"
```

```
Connection conn = DriverManager.getConnection(url);
```

## Getting the Connection

**To get a connection need to use the DriverManager**

**The URL identifies the database to connect to and is database specific**

# JDBC URLs

Always start with 'jdbc'

jdbc:mysql://localhost:3306/loboticket

protocol



# JDBC URLs

Vendor/product name

jdbc:mysql://localhost:3306/loboticket

subprotocol



# JDBC URLs

Database specific connection string

jdbc:mysql://localhost:3306/loboticket

Subname



# Example JDBC URLs

`jdbc:postgresql://localhost/loboticket`

`jdbc:mysql://localhost:3306/loboticket`

`jdbc:oracle:thin:@123.123.123.123:5321:loboticket`

`jdbc:derby:loboticket`



# Connecting to a Database

```
public class Application {  
    public static void main(String[] args) throws SQLException {  
        Connection conn =  
            DriverManager.getConnection("jdbc:mysql://localhost:3306/loboticket");  
    }  
}
```





# Connecting with a User Name and Password

```
public class Application {  
    public static void main(String[] args) throws SQLException {  
        Connection conn =  
            DriverManager.getConnection("jdbc:mysql://localhost:3306/loboticket",  
                                       "loboticket", "p4ssw0rd");  
    }  
}
```



# Running the Code

Jar file containing driver



```
java -cp .:mysql-connector-java-8.0.23.jar com.app.Application
```



# Output

```
com.mysql.cj.jdbc.ConnectionImpl@2ea41516
```

Notice that it prints the driver specific class name



# Demo



## **DriverManager.getConnection**



# Database Connections

**These are native resources**

**Must be closed by the application after use**

**Use 'try with resources' to close connection**

**This will also close the statement and the  
result set**



# Using Try With Resources

```
public static void main(String[] args) throws SQLException {  
    try (Connection conn = DriverManager.getConnection(  
        "jdbc:mysql://localhost:3306/loboticket")) {  
        PreparedStatement stmt = conn.prepareStatement("");  
        ResultSet rs = stmt.executeQuery();  
        while(rs.next()) {  
            System.out.println(rs.getString("Name"));  
        }  
    }  
}
```



# Demo



**try..with resources**



## Summary



**JDBC URL has a specific format**

**Use the URL to load the driver**

**Driver connects to the database**

**Use try with resources to close connection,  
prepared statement and result set**





Up Next:  
Using PreparedStatement

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