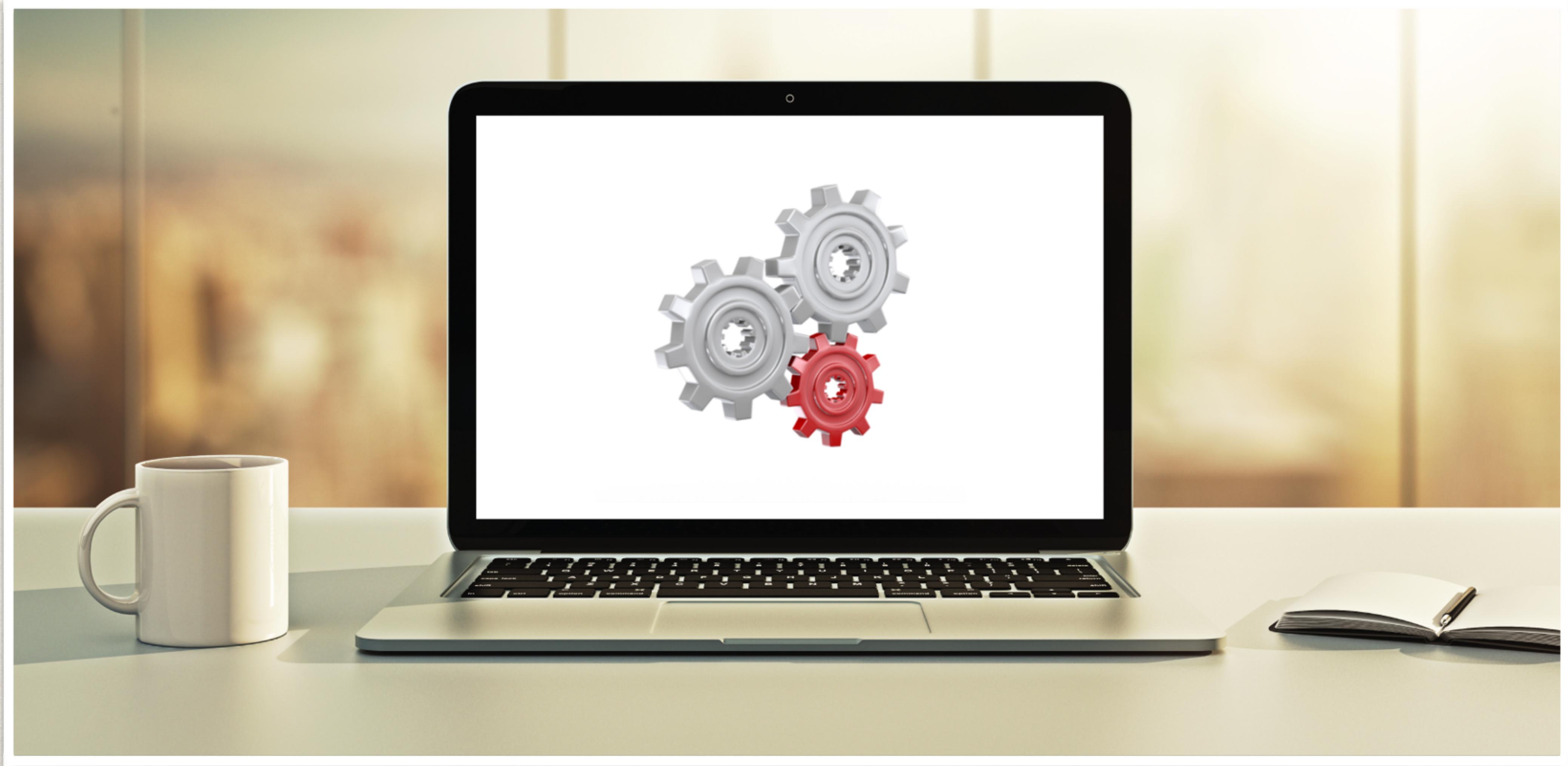


Setup Tomcat Database Connection Pool

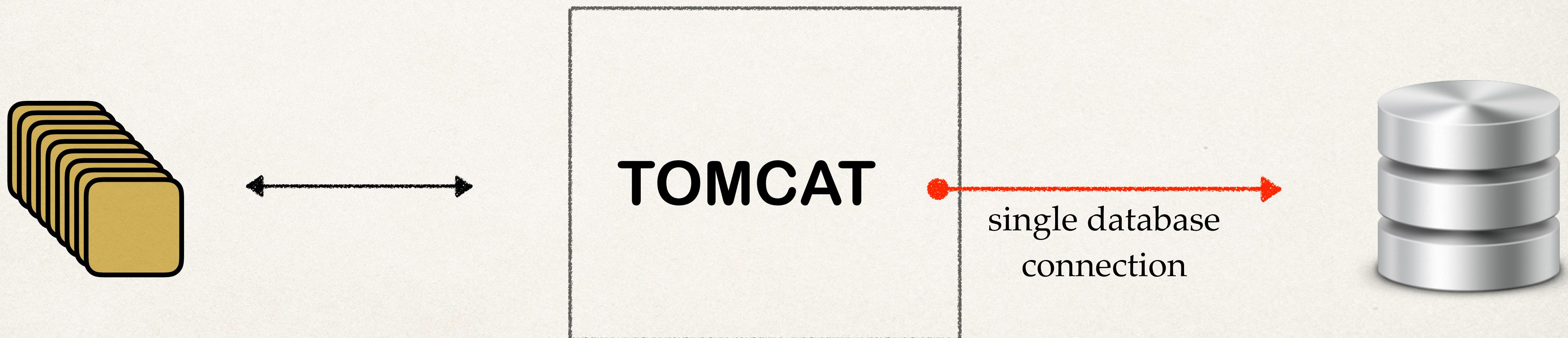


Topics

- ✿ Database Connections in web apps
- ✿ Database Connection Pools
- ✿ Setting up a Tomcat Database Connection Pool

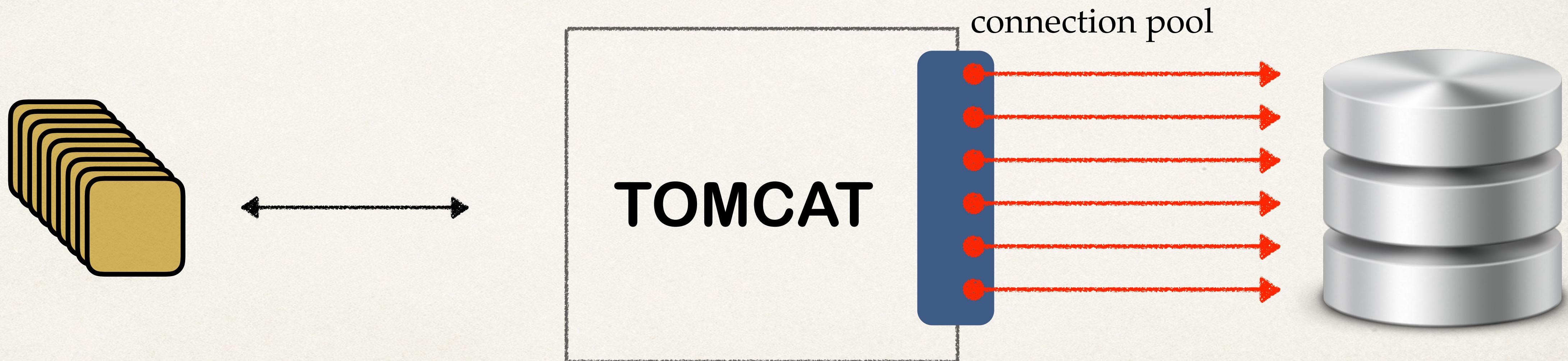
Database Connections in Web Apps

- ✿ You may think you only need a single database connection...
- ✿ Will **not scale** for multiple web users



Database Connection Pools

- ✿ Best practice is to use **database connection pools**
- ✿ Allows your app to scale and handle multiple users quickly



Database Connection in Tomcat

1. Download JDBC Driver JAR file
2. Define connection pool in **META-INF/context.xml**
3. Get connection pool reference in Java code

Step 1: Download JDBC Driver JAR file

1. MySQL JDBC Driver

- ✿ <http://dev.mysql.com/downloads>

2. Place the JAR file in your app's **WEB-INF/lib**

Step 2: Define connection pool: context.xml

File: WebContent/META-INF/context.xml

```
<Context>

<Resource name="jdbc/web_student_tracker"
    auth="Container" type="javax.sql.DataSource"
    maxActive="20" maxIdle="5" maxWait="10000"
    username="webstudent" password="webstudent"
    driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:3306/web_student_tracker"/>

</Context>
```

Step 3: Get connection pool in Java code

- ✿ Leverage *resource injection* with the Servlets
- ✿ This means that Tomcat will AUTOMAGICALLY
 - ✿ Set the connection pool / datasource on your servlet
- ✿ We'll see the code in the upcoming video