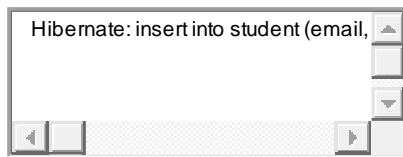


When using Hibernate, if you log the Hibernate SQL statements, you will see this:



- 1
- 2 Hibernate: insert into student (email, first_name, last_name, id) values (?, ?, ?, ?)
- 3

However, for debugging your application, you want to see the actual parameter values in the Hibernate logs. Basically, you want to get rid of the question marks in the Hibernate logs.

You can view the actual parameters by viewing the low-level trace of the Hibernate logs. This is not set up by default. However, we can add log4j to allow us to see these low-level logs.

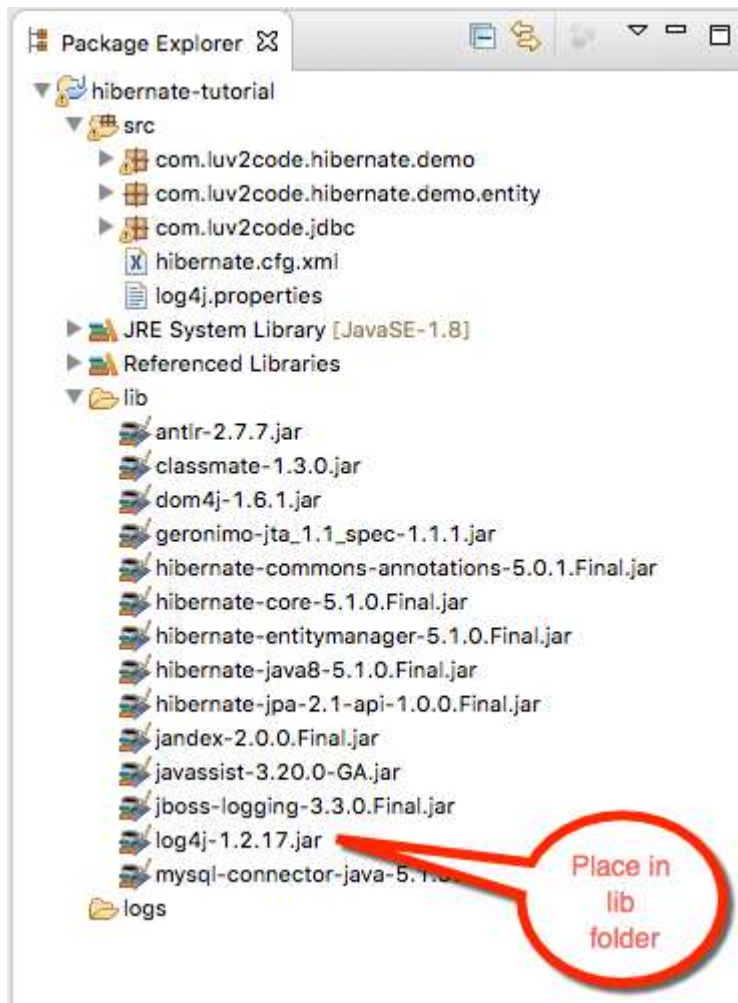
Here is an overview of the process:

1. Add log4j to your project classpath
2. Add log4j.properties to your “src” directory

Here are the detailed steps:

1. Add log4j to your project classpath

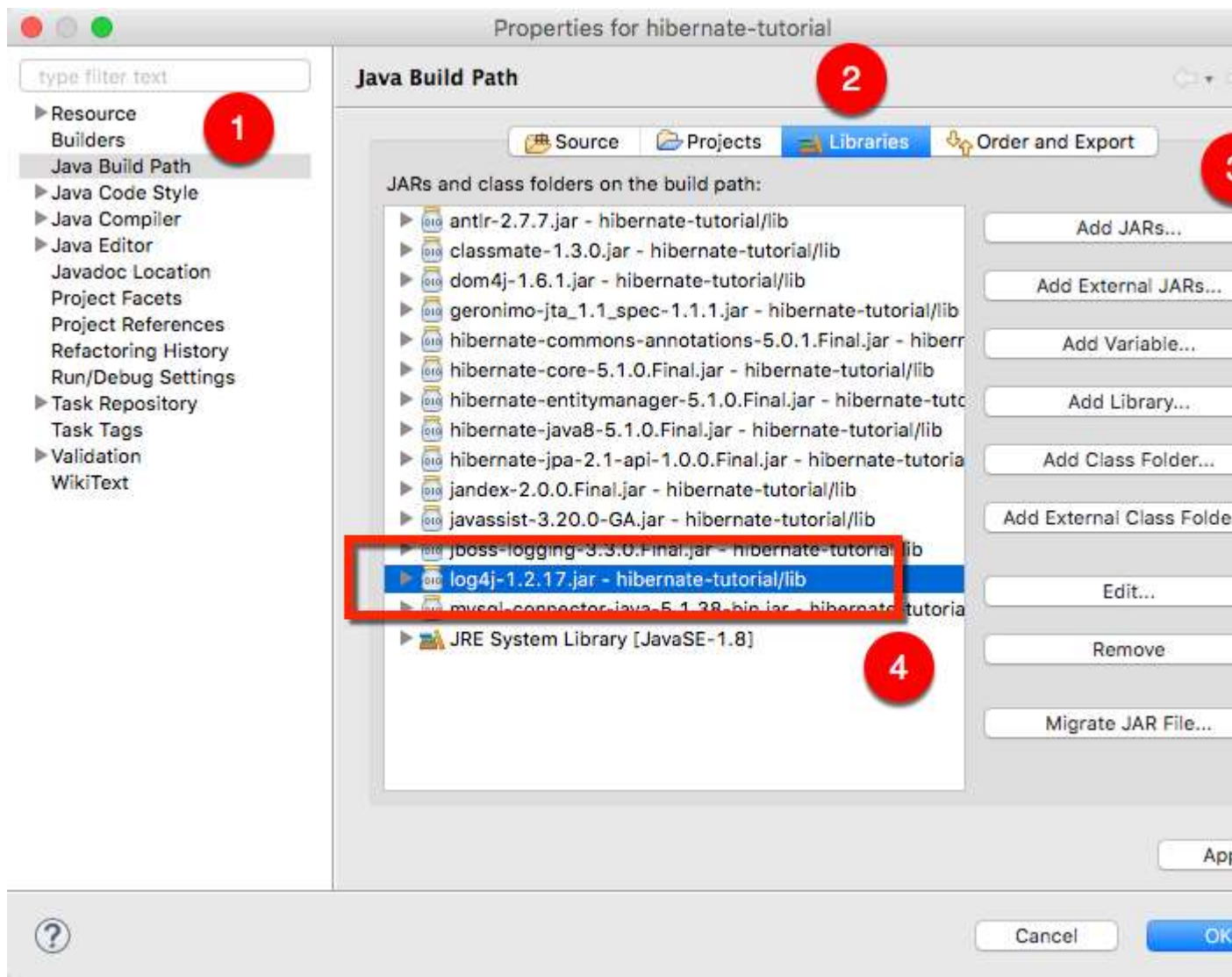
- 1a. Download log4j v1.2.17 from this link:
– <http://central.maven.org/maven2/log4j/log4j/1.2.17/log4j-1.2.17.jar>
- 1b. Copy this file to your project’s lib directory



1c. Right-click your Eclipse project and select **Properties**

1d. Select **Build Path > Libraries > Add JARS...**

1e. Select the **log4j-1.2.17.jar** file from the **lib** directory



2. Add log4j.properties to your “src” directory

2a. Copy the text from below

```
# Root logger option
```

```
log4j.rootLogger=DEBUG, stdout
```

```
# Redirect log messages to console
```

```
log4j.appender.stdout=org.apache.log4j.ConsoleAppender
```

log4j.appender.stdout.Target=System.out

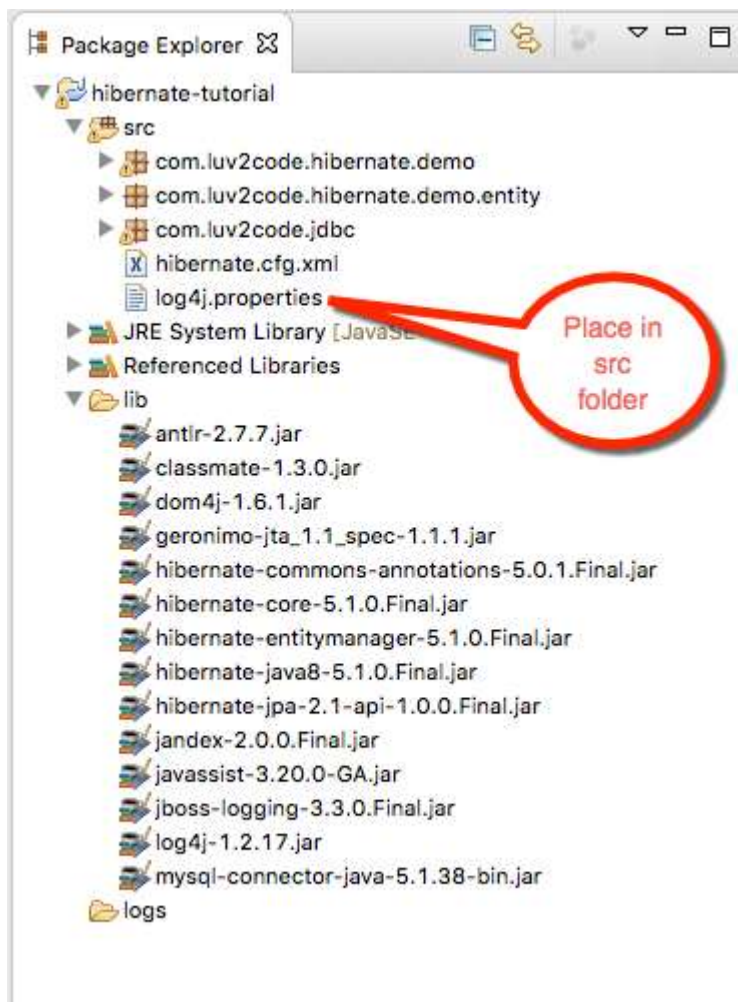
log4j.appender.stdout.layout=org.apache.log4j.PatternLayout

log4j.appender.stdout.layout.ConversionPattern=%d{yyyy-MM-dd HH:mm:ss} %-5p
%c{1}:%L - %m%n

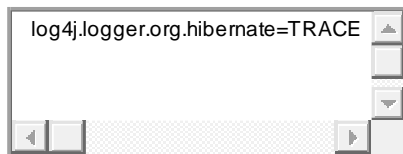
log4j.logger.org.hibernate=TRACE

[view raw log4j.properties](#) hosted with [by GitHub](#)

2b. Save this file in your “src” directory



Note: This file has an important setting:



1 log4j.logger.org.hibernate=TRACE

This allows you see a low-level trace of Hibernate and this allows you see the real SQL parameter values.

Now run your application. You will see a lot of low-level TRACE logs in the Eclipse Console window.

Right-click in the Eclipse Console window and select **Find/Replace...**

Search for: **binding parameter**

You will see the logs with the real parameter values. Congrats!

```
DEBUG SQL:92 - insert into student (email, first_name, last_name, password, username) values (?,?,?, ?, ?)
TRACE ResourceRegistryStandardImpl:55 - Registering org.hibernate.resource.jdbc.spi.ResourceRegistryStandardImpl
TRACE AbstractEntityPersister:2627 - Dehydrating entity org.hibernate.resource.jdbc.spi.ResourceRegistryStandardImpl
TRACE BasicBinder:65 - binding parameter [1] as [VARCHAR(255)]
TRACE BasicBinder:65 - binding parameter [2] as [VARCHAR(255)]
TRACE BasicBinder:65 - binding parameter [3] as [VARCHAR(255)]
```