

## 8.4 Software Architecture: Homework

### Task 1

Around the beginning of the second ten days of July a problem first appeared in the application. When a user tries to sign in to the application nothing happens. It's known the problem is on the server side. You don't know what is the application server-side architecture. But you have logs. Your task is to read logs and

1. Create a diagram describing the application server-side architecture (the same way it was done in the textbook)
2. Find the log entries that refer to the issue in the log file(s) and supply your suggestion with a short text that describes why you think the log entries indicate the actual issue.

(Logs are attached to this HW as files)

Read the sandbox documentation in order to figure out how to:

- set up VPN
- connect via SSH to the sandbox server
- restart the sandbox app
- access and read sandbox application logs
- access your own application (on the specific port)

### Task 2

Experiment with your own instance of Java-FTB application on 192.168.40.100 (ensure it's running beforehand, and start it if needed):

- Change file access permissions on '/apps/java/ftb/\$USER/application.properties' to prevent anyone from accessing this file.

```
chmod 000 /apps/java/ftb/$USER/application.properties
```

Restart the service. Verify the application failed to run on 192.168.40.100:\$YOUR\_PORT.

In your submission provide its logs as a screenshot with the evidence of start failure.

- Fix this issue by returning the permissions to the original state:

```
chmod 700 /apps/java/ftb/$USER/application.properties
```

Restart the service, and show its logs with successful results (only the last 5-10 lines saying "Started FlightticketbookingApplication" are required).

In your submission provide its logs as a screenshot with the evidence of start failure.

### Task 3

Continue the experimenting with the FTB service:

1. Using a text editor (f.e. nano) Change the MySQL port in "application.properties" configuration file from 3306 to 3307, then restart the service. Example:

```
nano /apps/java/ftb/$USER/application.properties
```

2. Look at its recent log messages and find out which lines can point you to connectivity issues
3. Fix it, then restart
4. In your submission provide the logs with successful restart results

### Task 1

Around the beginning of the second ten days of July a problem first appeared in the application. When a user tries to sign in to the application nothing happens. It's known the problem is on the server side. You don't know what is the application server-side architecture. But you have logs. Your task is to read logs and

1. **Create a diagram describing the application server-side architecture (the same way it was done in the textbook)**

We can understand from the task and from log file that:

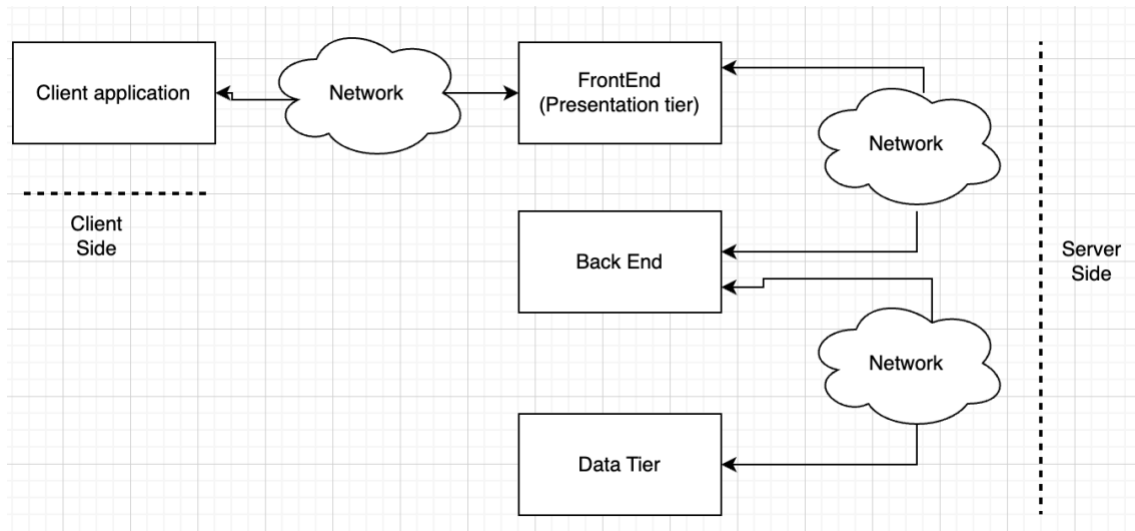
There is UI (log-in form),

Used node (frontend),

There are java .js (backend) and server+port: 192.168.40.100:7080.

There will be also database.

Thus we have 3-tier application:



- Find the log entries that refer to the issue in the log file(s) and supply your suggestion with a short text that describes why you think the log entries indicate the actual issue. (Logs are attached to this HW as files)

The log entries that refer to the issue is **frontend.log.txt**.

We have the information about date when a problem first appeared in the application – it is around the beginning of the second ten days of July.

We can see **Jul 11** just in frontend.log.txt.

We also can see in log file information about login and password (user tries to sign in to the application) and next to it error message (nothing happens when a user tries to sign in to the application).

Also known that the problem appeared not once, I see in the log identical problem 3 times (Jul 11 17:15:19, Jul 11 17:15:27 and Jul 11 17:15:32):

Jul 11 17:15:19 c7-sandbox npm[31824]: **Cookies:** [Object: null prototype] {}

Jul 11 17:15:19 c7-sandbox npm[31824]: { login: 'root', password: '1234' }

Jul 11 17:15:19 c7-sandbox npm[31824]: (node:31835) **UnhandledPromiseRejectionWarning: Error: connect ECONNREFUSED 192.168.40.100:7080**

Jul 11 17:15:19 c7-sandbox npm[31824]: at TCPConnectWrap.afterConnect [as oncomplete] (net.js:1159:16)

Jul 11 17:15:19 c7-sandbox npm[31824]: (Use `node --trace-warnings ...` to show where the warning was created)

Jul 11 17:15:19 c7-sandbox npm[31824]: (node:31835) UnhandledPromiseRejectionWarning: Unhandled promise rejection. This error originated either by throwing inside of an async function without a catch block, or b

Jul 11 17:15:19 c7-sandbox npm[31824]: (node:31835) [DEP0018] DeprecationWarning: Unhandled promise rejections are deprecated. In the future, promise rejections that are not handled will terminate the Node.js pr

## Task 2

Experiment with your own instance of Java-FTB application on 192.168.40.100 (ensure it's running beforehand, and start it if needed):

- Change file access permissions on '/apps/java/ftb/\$USER/application.properties' to prevent anyone from accessing this file.  
`chmod 000 /apps/java/ftb/$USER/application.properties`

I've started command:

`chmod 000 /apps/java/ftb/$USER/application.properties`

Then checked that I've changed file permission:

`cat application.properties`

cat: application.properties: Permission denied

```
[nkhaytovich@c7-backend nkhaytovich]$ chmod 000 /apps/java/ftb/$USER/application.properties
[nkhaytovich@c7-backend nkhaytovich]$ pwd
/apps/java/ftb/nkhaytovich
[nkhaytovich@c7-backend nkhaytovich]$ ls -l
total 20
-rw-r--r--. 1 nkhaytovich qa 2374 Nov 30 21:31 FTB.2023-11-30.log
-rw-r--r--. 1 nkhaytovich qa 2012 Dec 7 17:27 FTB.2023-12-07.log
-rw-r--r--. 1 nkhaytovich qa 2166 Dec 10 11:30 FTB.log
----- 1 nkhaytovich qa 1424 Oct 4 21:15 application.properties
lrwxrwxrwx. 1 nkhaytovich qa 37 Oct 4 21:15 ftb.jar -> /apps/scripts/template/ftb-actual.jar
-rwx----- 1 nkhaytovich qa 301 Oct 4 21:15 java-start-ftb.sh
[nkhaytovich@c7-backend nkhaytovich]$ cat application.properties
cat: application.properties: Permission denied
[nkhaytovich@c7-backend nkhaytovich]$
```

Restart the service. Verify the application failed to run on 192.168.40.100:\$YOUR\_PORT.

I've started command:

`sudo systemctl restart java-ftb.$USER`

Then checked that the application failed



## This site can't be reached

192.168.40.100 refused to connect.

Try:

- Checking the connection
- [Checking the proxy and the firewall](#)

ERR\_CONNECTION\_REFUSED

Details

Reload

In log file I see that I've stopped FTB service..

`journalctl -u java-ftb.$USER`

```
Dec 10 12:17:13 c7-backend systemd[1]: Stopping Flight ticket web service, per user...
Dec 10 12:17:13 c7-backend systemd[1]: Stopped Flight ticket web service, per user.
Dec 10 12:17:13 c7-backend systemd[1]: Started Flight ticket web service, per user.
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: 2023.12.10 12:17:14.008 [main] ERROR o.s.b.SpringApplication - Application run failed
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: java.lang.IllegalStateException: IO error on loading imports from optional:file:./con
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.context.config.ConfigDataImporter.resolveAndLoad(ConfigDataImporter.java:89)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.context.config.ConfigDataEnvironmentContributors.withProcessedImports(ConfigDataEnvironmentContributors.java:116)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.context.config.ConfigDataEnvironment.processInitial(ConfigDataEnvironment.java:103)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.context.config.ConfigDataEnvironment.processAndApply(ConfigDataEnvironment.java:127)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.context.config.ConfigDataEnvironmentPostProcessor.postProcessEnvironment(ConfigDataEnvironmentPostProcessor.java:103)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.context.config.ConfigDataEnvironmentPostProcessor.postProcessEnvironment(ConfigDataEnvironmentPostProcessor.java:118)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.env.EnvironmentPostProcessorApplicationListener.onApplicationEnvironmentPrepared(ApplicationListener.java:28)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.env.EnvironmentPostProcessorApplicationListener.onApplicationEnvironmentPrepared(ApplicationListener.java:28)
```

```
Dec 10 12:17:14 c7-backend systemd[1]: java-ftb.nkhaytovich.service: main process exited, code=exited, status=1/FAILURE
Dec 10 12:17:14 c7-backend systemd[1]: Unit java-ftb.nkhaytovich.service entered failed state.
Dec 10 12:17:14 c7-backend systemd[1]: java-ftb.nkhaytovich.service failed.
```

Here I see also the reason:

```
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.SpringApplication.run(SpringApplication.java:1306)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.SpringApplication.run(SpringApplication.java:1295)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at com.aerotravel.flightticketbooking.FlightticketbookingApplication.main(FlightticketbookingApplication.java:50)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:77)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at java.base/jdk.internal.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.loader.MainMethodRunner.run(MainMethodRunner.java:49)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.loader.Launcher.launch(Launcher.java:108)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.loader.Launcher.launch(Launcher.java:58)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at org.springframework.boot.loader.JarLauncher.main(JarLauncher.java:65)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: Caused by: java.io.FileNotFoundException: application.properties (Permission denied)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at java.base/java.io.FileInputStream.open0(Native Method)
Dec 10 12:17:14 c7-backend java-start-ftb.sh[15136]: at java.base/java.io.FileInputStream.open(FileInputStream.java:216)
```

- Fix this issue by returning the permissions to the original state:  
`chmod 700 /apps/java/ftb/$USER/application.properties`

Started command:

```
chmod 700 /apps/java/ftb/$USER/application.properties
```

Checked that I've changed file permission:

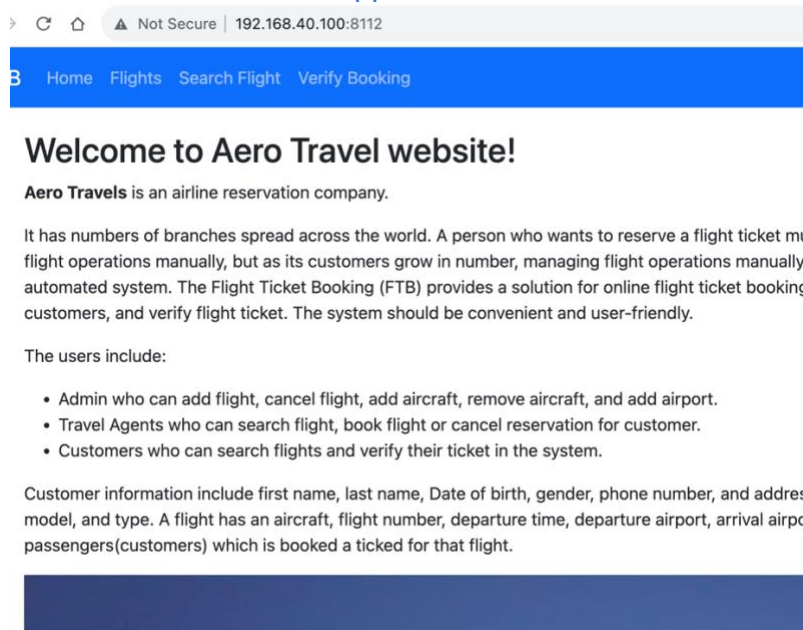
```
[nkhaytovich@c7-backend nkhaytovich]$ cat application.properties
# =====
# APPLICATION PROPERTIES
# =====
server.port=8112
# =====
# = Thymeleaf configurations (ThymeleafAutoConfiguration)
# =====
spring.thymeleaf.mode=HTML
spring.thymeleaf.cache=false
spring.thymeleaf.encoding=UTF-8
# =====
# = DATA SOURCE
# =====
##Using MySQL database
spring.datasource.url=jdbc:mysql://192.168.40.150:3306/ftb_nkhaytovich?allowPublicKeyRetrieval=true&useSSL=false&useLegacyDatetimeCode=false&serverTimezone=UTC
spring.datasource.username=dbnkhaytovich
spring.datasource.password=a36d4c33e1
# =====
# = JPA / HIBERNATE
# =====
spring.jpa.show-sql=true
spring.jpa.hibernate.ddl-auto=update
spring.jpa.hibernate.naming.implicit-strategy=org.hibernate.boot.model.naming.ImplicitNamingStrategyJpaCompliantImpl
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL8Dialect
# =====
# Sources of Documentation
# =====
# https://docs.spring.io/spring-boot/docs/current/reference/html/common-application-properties.html
# https://www.thymeleaf.org/doc/tutorials/3.0/usingthymeleaf.html
server.error.whitelabel.enabled=false
# =====
# Impediment
# =====
impediment.delays=true
```

Restart the service, and show its logs with successful results (only the last 5-10 lines saying "Started FlightticketbookingApplication" are required).

Then I've restarted the service:

```
sudo systemctl restart java-ftb.$USER
```

Then checked that the application – it works:



In log file I see that I've stopped FTB service..

```
journalctl -u java-ftb.$USER
```



```

Dec 10 12:37:46 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:46.068 [background-preinit] INFO o.h.v.i.util.Version - HV000001: Hibernate Validator 6.2.3.Final
Dec 10 12:37:46 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:46.080 [main] INFO c.a.f.FlighttticketbookingApplication - Starting FlighttticketbookingApplication v0.0.95-SNAPSHOT using
Dec 10 12:37:46 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:46.081 [main] INFO c.a.f.FlighttticketbookingApplication - No active profile set, falling back to 1 default profile: "defa
Dec 10 12:37:46 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:46.710 [main] INFO o.s.d.r.c.RepositoryConfigurationDelegate - Bootstrapping Spring Data JPA repositories in DEFAULT mode
Dec 10 12:37:46 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:46.754 [main] INFO o.s.d.r.c.RepositoryConfigurationDelegate - Finished Spring Data repository scanning in 39 ms. Found 6
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.378 [main] INFO o.s.b.w.e.t.TomcatWebServer - Tomcat initialized with port(s): 8112 (http)
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.371 [main] INFO o.a.c.h.Http11NioProtocol - Initializing ProtocolHandler ["http-nio-8112"]
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.378 [main] INFO o.a.c.c.StandardService - Starting service [Tomcat]
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.378 [main] INFO o.a.c.c.StandardEngine - Starting Servlet engine: [Apache Tomcat/9.0.65]
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.425 [main] INFO o.a.c.c.C.[.][/] - Initializing Spring embedded WebApplicationContext
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.425 [main] INFO o.s.b.w.s.c.ServletWebServerApplicationContext - Root WebApplicationContext: initialization completed
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.537 [main] INFO o.h.j.i.u.LogHelper - Processing PersistenceUnitInfo [name: default]
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.572 [main] INFO o.hibernate.Version - HHH0000412: Hibernate ORM core version 5.6.10.Final
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.673 [main] INFO o.h.a.common.Version - HCANNO00001: Hibernate Commons Annotations {5.1.2.Final}
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.739 [main] INFO c.z.h.HikariDataSource - HikariPool-1 - Starting...
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.857 [main] INFO c.z.h.HikariDataSource - HikariPool-1 - Start completed.
Dec 10 12:37:47 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.866 [main] INFO o.h.dialect.Dialect - HHH000400: Using dialect: org.hibernate.dialect.MySQL8Dialect
Dec 10 12:37:48 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:47.866 [main] INFO o.h.dialect.Dialect - HHH000400: Using dialect: org.hibernate.dialect.MySQL8Dialect
Dec 10 12:37:48 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:48.006 [main] INFO o.h.e.t.j.p.i.JtaPlatformInitiator - HHH000490: Using JtaPlatform implementation: [org.hibernate.engin
Dec 10 12:37:48 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:48.611 [main] INFO o.s.o.j.LocalContainerEntityManagerFactoryBean - Initialized JPA EntityManagerFactory for persistence
Dec 10 12:37:49 c7-backend java-start-ftb.sh[17026]: 2023.12.10 12:37:49.006 [main] INFO c.a.f.FlighttticketbookingApplication -
Dec 10 12:37:49 c7-backend java-start-ftb.sh[17026]: =====
Dec 10 12:37:49 c7-backend java-start-ftb.sh[17026]: Check roles available.

```

### Task 3

Continue the experimenting with the FTB service:

1. Using a text editor (f.e. nano) Change the MySQL port in "application.properties" configuration file from 3306 to 3307, then restart the service. Example:

nano /apps/java/ftb/\$USER/application.properties

I've changed port from 3306 to 3307:

```

[nkhaytovich@c7-backend nkhaytovich]$ cat application.properties
# =====
# APPLICATION PROPERTIES
# =====
server.port=8112
# =====
# = Thymeleaf configurations (ThymeleafAutoConfiguration)
# =====
spring.thymeleaf.mode=HTML
spring.thymeleaf.cache=false
spring.thymeleaf.encoding=UTF-8
# =====
# = DATA SOURCE
# =====
##Using MySQL database
spring.datasource.url=jdbc:mysql://192.168.40.150:3307/ftb_nkhaytovich?allowPublicKeyRetrieval=true&useSSL=false&useLegacyDat
false&serverTimezone=UTC
spring.datasource.username=dbnkhaytovich
spring.datasource.password=a36d4c33e1
# =====
# = JPA / HIBERNATE
# =====
spring.jpa.show-sql=true
spring.jpa.hibernate.ddl-auto=update
spring.jpa.hibernate.naming.implicit-strategy=org.hibernate.boot.model.naming.ImplicitNamingStrategyJpaCompliantImpl
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL8Dialect
# =====
# Sources of Documentation
# =====
# https://docs.spring.io/spring-boot/docs/current/reference/html/common-application-properties.html
# https://www.thymeleaf.org/doc/tutorials/3.0/usingthymeleaf.html
#server.error.whitelabel.enabled=false
# =====
# Impediment
# =====
impediment.delays=true

```

Then restarted the service:

sudo systemctl restart java-ftb.\$USER

## 2. Look at its recent log messages and find out which lines can point you to connectivity issues

I think that the next lines can point to connectivity issues:

```
Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]:
com.mysql.cj.jdbc.exceptions.CommunicationsException: Communications link failure

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: The last packet sent successfully to the server was 0
milliseconds ago. The driver has not received any packets from

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: at
com.mysql.cj.jdbc.exceptions.SQLError.createCommunicationsException(SQLError.java:174)

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: at
com.mysql.cj.jdbc.exceptions.SQLExceptionsMapping.translateException(SQLExceptionsMapping.java:64)
...

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: Caused by:
com.mysql.cj.exceptions.CJCommunicationsException: Communications link failure

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: The last packet sent successfully to the server was 0
milliseconds ago. The driver has not received any packets from

...

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: ... 57 common frames omitted
Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: Caused by: java.net.ConnectException: Connection
refused

...

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: ... 60 common frames omitted
Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: 2023.12.10 14:04:29.640 [main] WARN
o.h.e.j.e.i.JdbcEnvironmentInitiator - HHH000342: Could not obtain connection t

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]:
com.mysql.cj.jdbc.exceptions.CommunicationsException: Communications link failure

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: The last packet sent successfully to the server was 0
milliseconds ago. The driver has not received any packets from

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: at
com.mysql.cj.jdbc.exceptions.SQLError.createCommunicationsException(SQLError.java:174)

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: at
com.mysql.cj.jdbc.exceptions.SQLExceptionsMapping.translateException(SQLExceptionsMapping.java:64)
...
```



Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: Caused by:  
com.mysql.cj.exceptions.CJCommunicationsException: Communications link failure

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: The last packet sent successfully to the server was 0  
milliseconds ago. The driver has not received any packets from

...

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: ... 57 common frames omitted

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: Caused by: java.net.ConnectException: Connection  
refused

...

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: ... 60 common frames omitted

Dec 10 14:04:29 c7-backend java-start-ftp.sh[26698]: 2023.12.10 14:04:29.647 [main] INFO  
o.h.dialect.Dialect - HHH000400: Using dialect: org.hibernate.dialect.MySQL8Dialect

Dec 10 14:04:30 c7-backend java-start-ftp.sh[26698]: 2023.12.10 14:04:30.147 [main] INFO  
c.z.h.HikariDataSource - HikariPool-1 - Starting...

Dec 10 14:04:31 c7-backend java-start-ftp.sh[26698]: 2023.12.10 14:04:31.149 [main] ERROR  
c.z.h.p.HikariPool - HikariPool-1 - Exception during pool initialization.

Dec 10 14:04:31 c7-backend java-start-ftp.sh[26698]:  
com.mysql.cj.jdbc.exceptions.CommunicationsException: Communications link failure

Dec 10 14:04:31 c7-backend java-start-ftp.sh[26698]: The last packet sent successfully to the server was 0  
milliseconds ago. The driver has not received any packets from

Dec 10 14:04:31 c7-backend java-start-ftp.sh[26698]: at  
com.mysql.cj.jdbc.exceptions.SQLError.createCommunicationsException(SQLError.java:174)

Dec 10 14:04:31 c7-backend java-start-ftp.sh[26698]: at  
com.mysql.cj.jdbc.exceptions.SQLExceptionsMapping.translateException(SQLExceptionsMapping.java:64)

...

Dec 10 14:04:31 c7-backend java-start-ftp.sh[26698]: Caused by: java.net.ConnectException: Connection  
refused

*(There are a lot such lines in a log file)  
There are lines with hibernate also..*

```

Dec 10 14:04:28 c7-backend java-start-ftb.sh[26698]: 2023.12.10 14:04:28.249 [main] INFO o.s.b.w.s.c.ServletWebServerApplicationContext - Root WebApplicationContext: in
Dec 10 14:04:28 c7-backend java-start-ftb.sh[26698]: 2023.12.10 14:04:28.364 [main] INFO o.h.j.i.u.LogHelper - HHH000204: Processing PersistenceUnitInfo [name: default]
Dec 10 14:04:28 c7-backend java-start-ftb.sh[26698]: 2023.12.10 14:04:28.395 [main] INFO o.hibernate.Version - HHH000412: Hibernate ORM core version 5.6.10.Final
Dec 10 14:04:28 c7-backend java-start-ftb.sh[26698]: 2023.12.10 14:04:28.505 [main] INFO o.h.a.common.Version - HCANN000001: Hibernate Commons Annotations {5.1.2.Final}
Dec 10 14:04:28 c7-backend java-start-ftb.sh[26698]: 2023.12.10 14:04:28.563 [main] INFO c.z.h.HikariDataSource - HikariPool-1 - Starting...
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: 2023.12.10 14:04:29.639 [main] ERROR c.z.h.p.HikariPool - HikariPool-1 - Exception during pool initialization.
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: com.mysql.cj.jdbc.exceptions.CommunicationsException: Communications link failure
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: The last packet sent successfully to the server was 0 milliseconds ago. The driver has not received any packets from
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.mysql.cj.jdbc.exceptions.SQLExceptionsMapping.translateException(SQLException.java:174)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.mysql.cj.jdbc.ConnectionImpl.createNewIO(ConnectionImpl.java:828)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.mysql.cj.jdbc.ConnectionImpl.<init>(ConnectionImpl.java:448)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.mysql.cj.jdbc.ConnectionImpl.getInstance(ConnectionImpl.java:241)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.zaxxer.hikari.util.DriverDataSource.getConnection(DriverDataSource.java:138)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.zaxxer.hikari.pool.PoolBase.newConnection(PoolBase.java:364)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.zaxxer.hikari.pool.PoolBase.newPoolEntry(PoolBase.java:206)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.zaxxer.hikari.pool.HikariPool.createPoolEntry(HikariPool.java:476)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.zaxxer.hikari.pool.HikariPool.checkFailFast(HikariPool.java:561)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.zaxxer.hikari.pool.HikariPool.<init>(HikariPool.java:115)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at com.zaxxer.hikari.HikariDataSource.getConnection(HikariDataSource.java:112)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.engine.jdbc.connections.internal.DatasourceConnectionProviderImpl.getConnection(DatasourceConnectionPro
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.engine.jdbc.env.internal.JdbcEnvironmentInitiator$ConnectionProviderJdbcConnectionAccess.obtainConn
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.engine.jdbc.env.internal.JdbcEnvironmentInitiator.initiateService(JdbcEnvironmentInitiator.java:68)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.engine.jdbc.env.internal.JdbcEnvironmentInitiator.initiateService(JdbcEnvironmentInitiator.java:35)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.service.internal.StandardServiceRegistryImpl.initiateService(StandardServiceRegistryImpl.java
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.service.internal.AbstractServiceRegistryImpl.createService(AbstractServiceRegistryImpl.java:263)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.service.internal.AbstractServiceRegistryImpl.initializeService(AbstractServiceRegistryImpl.java:237)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.service.internal.AbstractServiceRegistryImpl.getService(AbstractServiceRegistryImpl.java:214)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.id.factory.internal.DefaultIdentifierGeneratorFactory.injectServices(DefaultIdentifierGeneratorFact
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.service.internal.AbstractServiceRegistryImpl.injectDependencies(AbstractServiceRegistryImpl.java:28)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.service.internal.AbstractServiceRegistryImpl.initializeService(AbstractServiceRegistryImpl.java:243)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.service.internal.AbstractServiceRegistryImpl.getService(AbstractServiceRegistryImpl.java:214)
Dec 10 14:04:29 c7-backend java-start-ftb.sh[26698]: at org.hibernate.boot.internal.InFlightMetadataCollectorImpl.<init>(InFlightMetadataCollectorImpl.java:173)

```

### 3. Fix it, then restart

nano /apps/java/ftb/\$USER/application.properties

I've changed port from 3307 to 3306:

```

[nkhaytovich@c7-backend nkhaytovich]$ cat application.properties
# =====
# APPLICATION PROPERTIES
# =====
server.port=8112
# =====
# = Thymeleaf configurations (ThymeleafAutoConfiguration)
# =====
spring.thymeleaf.mode=HTML
spring.thymeleaf.cache=false
spring.thymeleaf.encoding=UTF-8
# =====
# = DATA SOURCE
# =====
##Using MySQL database
spring.datasource.url=jdbc:mysql://192.168.40.150:3306/ftb_nkhaytovich?allowPublicKeyRetrieval=true&useSSL=false&useLegacyDatetime
spring.datasource.username=dbnkhaytovich
spring.datasource.password=a36d4c33e1
# =====
# = JPA / HIBERNATE
# =====
spring.jpa.show-sql=true
spring.jpa.hibernate.ddl-auto=update
spring.jpa.hibernate.naming.implicit-strategy=org.hibernate.boot.model.naming.ImplicitNamingStrategyJpaCompliantImpl
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL8Dialect
# =====
# Sources of Documentation
# =====
# https://docs.spring.io/spring-boot/docs/current/reference/html/common-application-properties.html
# https://www.thymeleaf.org/doc/tutorials/3.0/usingthymeleaf.html
#server.error.whitelabel.enabled=false
# =====
# Impediment

```

Then restarted the service:

sudo systemctl restart java-ftb.\$USER

### 4. In your submission provide the logs with successful restart results

journalctl -u java-ftb.\$USER



