

# Spring Batch Hello World Example

By mkyong (<http://www.mkyong.com/author/mkyong/>) | July 31, 2013 | Viewed : 333,662 times +1,476 pv/w

Spring Batch is a framework for batch processing – execution of a series of jobs. In Spring Batch, A job consists of many steps and each step consists of a READ-PROCESS-WRITE task or single operation task (tasklet).

1. For “READ-PROCESS-WRITE” process, it means “read” data from the resources (csv, xml or database), “process” it and “write” it to other resources (csv, xml and database). For example, a step may read data from a CSV file, process it and write it into the database. Spring Batch provides many made Classes to read/write CSV, XML and database.
2. For “single” operation task (tasklet), it means doing single task only, like clean up the resources after or before a step is started or completed.
3. And the steps can be chained together to run as a job.

```
1 Job = Many Steps.
1 Step = 1 READ-PROCESS-WRITE or 1 Tasklet.
Job = {Step 1 -> Step 2 -> Step 3} (Chained together)
```

## Spring Batch Examples

Consider following batch jobs :

1. Step 1 – Read CSV files from folder A, process, write it to folder B. “READ-PROCESS-WRITE”
2. Step 2 – Read CSV files from folder B, process, write it to the database. “READ-PROCESS-WRITE”
3. Step 3 – Delete the CSB files from folder B. “Tasklet”
4. Step 4 – Read data from a database, process and generate statistic report in XML format, write it to folder C. “READ-PROCESS-WRITE”
5. Step 5 – Read the report and send it to manager email. “Tasklet”

In Spring Batch, we can declare like the following :

```
<job id="abcJob" xmlns="http://www.springframework.org/schema/batch">
<step id="step1" next="step2">
<tasklet>
<chunk reader="csvItemReader" writer="csvItemWriter"
processor="itemProcessor" commit-interval="1" />
</tasklet>
</step>
<step id="step2" next="step3">
<tasklet>
<chunk reader="csvItemReader" writer="databaseItemWriter"
processor="itemProcessor" commit-interval="1" />
</tasklet>
</step>
<step id="step3" next="step4">
<tasklet ref="fileDeletingTasklet" />
</step>
<step id="step4" next="step5">
<tasklet>
<chunk reader="databaseItemReader" writer="xmlItemWriter"
processor="itemProcessor" commit-interval="1" />
</tasklet>
</step>
<step id="step5">
<tasklet ref="sendingEmailTasklet" />
</step>
</job>
```

The entire jobs and steps execution are stored in database, which make the failed step is able to restart at where it was failed, no need start over the entire job.

## 1. Tutorial

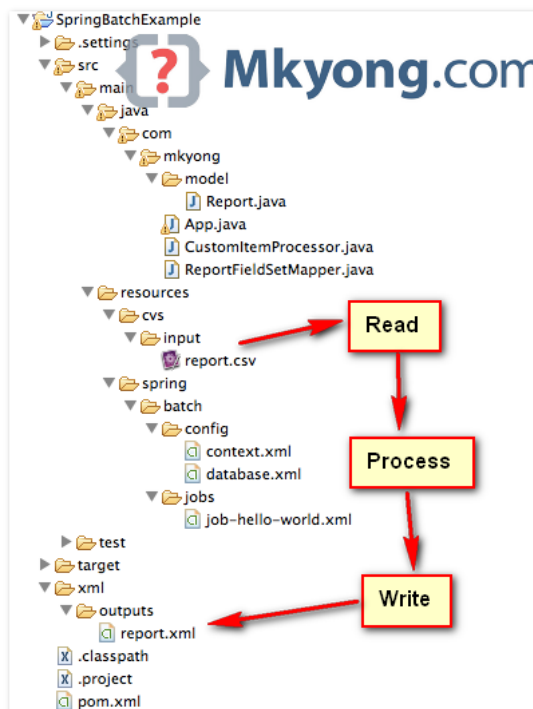
In this Spring Batch tutorial, we will show you how to create a job, read a CSV file, process it, write the output to an XML file.

Tools and libraries used

1. Maven 3
2. Eclipse 4.2
3. JDK 1.6
4. Spring Core 3.2.2.RELEASE
5. Spring OXM 3.2.2.RELEASE
6. Spring JDBC 3.2.2.RELEASE
7. Spring Batch 2.2.0.RELEASE

## 2. Project Directory

Review final project directory, a standard Maven project.



## 3. Project Dependencies

They must have dependencies are just Spring Core, Spring Batch and JDK 1.5. Read comments for self-explanatory.

```
pom.xml
```

```

<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
    http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.mkyyong</groupId>
  <artifactId>SpringBatchExample</artifactId>
  <packaging>jar</packaging>
  <version>1.0-SNAPSHOT</version>
  <name>SpringBatchExample</name>
  <url>http://maven.apache.org</url>

  <properties>
    <jdk.version>1.6</jdk.version>
    <spring.version>3.2.2.RELEASE</spring.version>
    <spring.batch.version>2.2.0.RELEASE</spring.batch.version>
    <mysql.driver.version>5.1.25</mysql.driver.version>
    <junit.version>4.11</junit.version>
  </properties>

  <dependencies>

    <!-- Spring Core -->
    <dependency>
      <groupId>org.springframework</groupId>
      <artifactId>spring-core</artifactId>
      <version>${spring.version}</version>
    </dependency>

    <!-- Spring jdbc, for database -->
    <dependency>
      <groupId>org.springframework</groupId>
      <artifactId>spring-jdbc</artifactId>
      <version>${spring.version}</version>
    </dependency>

    <!-- Spring XML to/back object -->
    <dependency>
      <groupId>org.springframework</groupId>
      <artifactId>spring-oxm</artifactId>
      <version>${spring.version}</version>
    </dependency>

    <!-- MySQL database driver -->
    <dependency>
      <groupId>mysql</groupId>
      <artifactId>mysql-connector-java</artifactId>
      <version>${mysql.driver.version}</version>
    </dependency>

    <!-- Spring Batch dependencies -->
    <dependency>
      <groupId>org.springframework.batch</groupId>
      <artifactId>spring-batch-core</artifactId>
      <version>${spring.batch.version}</version>
    </dependency>
    <dependency>
      <groupId>org.springframework.batch</groupId>
      <artifactId>spring-batch-infrastructure</artifactId>
      <version>${spring.batch.version}</version>
    </dependency>

    <!-- Spring Batch unit test -->
    <dependency>
      <groupId>org.springframework.batch</groupId>
      <artifactId>spring-batch-test</artifactId>
      <version>${spring.batch.version}</version>
    </dependency>

    <!-- Junit -->
    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>${junit.version}</version>
      <scope>test</scope>
    </dependency>
  </dependencies>

```

```
</dependencies>
<build>
  <finalName>spring-batch</finalName>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-eclipse-plugin</artifactId>
      <version>2.9</version>
      <configuration>
        <downloadSources>true</downloadSources>
        <downloadJavadocs>false</downloadJavadocs>
      </configuration>
    </plugin>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-compiler-plugin</artifactId>
      <version>2.3.2</version>
      <configuration>
        <source>${jdk.version}</source>
        <target>${jdk.version}</target>
      </configuration>
    </plugin>
  </plugins>
</build>
</project>
```

## 4. Spring Batch Jobs

A CSV file.

report.csv

```
1001,"213,100",980,"mkyong", 29/7/2013
1002,"320,200",1080,"staff 1", 30/7/2013
1003,"342,197",1200,"staff 2", 31/7/2013
```

A Spring batch job, to read above csv file with `FlatFileItemReader` , process the data with `itemProcessor` and write it to an XML file with `StaxEventItemWriter` .

job-hello-world.xml

```

<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:batch="http://www.springframework.org/schema/batch"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xsi:schemaLocation="http://www.springframework.org/schema/batch
http://www.springframework.org/schema/batch/spring-batch-2.2.xsd
http://www.springframework.org/schema/beans
http://www.springframework.org/schema/beans/spring-beans-3.2.xsd"
>

<import resource="../../config/context.xml" />
<import resource="../../config/database.xml" />

<bean id="report" class="com.mkyong.model.Report" scope="prototype" />
<bean id="itemProcessor" class="com.mkyong.CustomItemProcessor" />

<batch:job id="helloWorldJob">
  <batch:step id="step1">
    <batch:tasklet>
      <batch:chunk reader="csvFileItemReader" writer="xmlItemWriter"
        processor="itemProcessor" commit-interval="10">
      </batch:chunk>
    </batch:tasklet>
  </batch:step>
</batch:job>

<bean id="csvFileItemReader" class="org.springframework.batch.item.file.FlatFileItemReader">

  <property name="resource" value="classpath:csv/input/report.csv" />

  <property name="lineMapper">
    <bean class="org.springframework.batch.item.file.mapping.DefaultLineMapper">
      <property name="lineTokenizer">
        <bean
          class="org.springframework.batch.item.file.transform.DelimitedLineTokenizer">
          <property name="names" value="id,sales,qty,staffName,date" />
        </bean>
      </property>
      <property name="fieldSetMapper">
        <bean class="com.mkyong.ReportFieldSetMapper" />

        <!-- if no data type conversion, use BeanWrapperFieldSetMapper to map by name
        <bean
          class="org.springframework.batch.item.file.mapping.BeanWrapperFieldSetMapper">
          <property name="prototypeBeanName" value="report" />
        </bean>
        -->
      </property>
    </bean>
  </property>

</bean>

<bean id="xmlItemWriter" class="org.springframework.batch.item.xml.StaxEventItemWriter">
  <property name="resource" value="file:xml/outputs/report.xml" />
  <property name="marshaller" ref="reportMarshaller" />
  <property name="rootTagName" value="report" />
</bean>

<bean id="reportMarshaller" class="org.springframework.oxm.jaxb.Jaxb2Marshaller">
  <property name="classesToBeBound">
    <list>
      <value>com.mkyong.model.Report</value>
    </list>
  </property>
</bean>

</beans>

```

Map CSV value to Report object and write it to XML file (via jaxb annotations).

Report.java

```
package com.mkyong.model;

import java.math.BigDecimal;
import java.util.Date;
import javax.xml.bind.annotation.XmlAttribute;
import javax.xml.bind.annotation.XmlElement;
import javax.xml.bind.annotation.XmlRootElement;

@XmlRootElement(name = "record")
public class Report {

    private int id;
    private BigDecimal sales;
    private int qty;
    private String staffName;
    private Date date;

    @XmlAttribute(name = "id")
    public int getId() {
        return id;
    }

    public void setId(int id) {
        this.id = id;
    }

    @XmlElement(name = "sales")
    public BigDecimal getSales() {
        return sales;
    }

    public void setSales(BigDecimal sales) {
        this.sales = sales;
    }

    @XmlElement(name = "qty")
    public int getQty() {
        return qty;
    }

    public void setQty(int qty) {
        this.qty = qty;
    }

    @XmlElement(name = "staffName")
    public String getStaffName() {
        return staffName;
    }

    public void setStaffName(String staffName) {
        this.staffName = staffName;
    }

    public Date getDate() {
        return date;
    }

    public void setDate(Date date) {
        this.date = date;
    }

    @Override
    public String toString() {
        return "Report [id=" + id + ", sales=" + sales
            + ", qty=" + qty + ", staffName=" + staffName + "];"
    }
}
```

To convert a `Date`, you need a custom `FieldSetMapper`. If no data type conversion, just use `BeanWrapperFieldSetMapper` to map the values by name automatically.

ReportFieldSetMapper.java

```
package com.mkyong;

import java.text.ParseException;
import java.text.SimpleDateFormat;
import org.springframework.batch.item.file.mapping.FieldSetMapper;
import org.springframework.batch.item.file.transform.FieldSet;
import org.springframework.validation.BindException;

import com.mkyong.model.Report;

public class ReportFieldSetMapper implements FieldSetMapper<Report> {

    private SimpleDateFormat dateFormat = new SimpleDateFormat("dd/MM/yyyy");

    @Override
    public Report mapFieldSet(FieldSet fieldSet) throws BindException {

        Report report = new Report();
        report.setId(fieldSet.readInt(0));
        report.setSales(fieldSet.readBigDecimal(1));
        report.setQty(fieldSet.readInt(2));
        report.setStaffName(fieldSet.readString(3));

        //default format yyyy-MM-dd
        //fieldSet.readDate(4);
        String date = fieldSet.readString(4);
        try {
            report.setDate(dateFormat.parse(date));
        } catch (ParseException e) {
            e.printStackTrace();
        }

        return report;
    }
}
```

A `ItemProcessor` will be fired before `ItemWriter`.

#### CustomItemProcessor.java

```
package com.mkyong;

import org.springframework.batch.item.ItemProcessor;
import com.mkyong.model.Report;

public class CustomItemProcessor implements ItemProcessor<Report, Report> {

    @Override
    public Report process(Report item) throws Exception {

        System.out.println("Processing..." + item);
        return item;
    }
}
```

Spring context and database configuration.

#### context.xml

```

<beans xmlns="http://www.springframework.org/schema/beans"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="
    http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans-3.2.xsd">

  <!-- stored job-meta in memory -->
  <!--
  <bean id="jobRepository"
    class="org.springframework.batch.core.repository.support.MapJobRepositoryFactoryBean">
    <property name="transactionManager" ref="transactionManager" />
  </bean>
  -->

  <!-- stored job-meta in database -->
  <bean id="jobRepository"
    class="org.springframework.batch.core.repository.support.JobRepositoryFactoryBean">
    <property name="dataSource" ref="dataSource" />
    <property name="transactionManager" ref="transactionManager" />
    <property name="databaseType" value="mysql" />
  </bean>

  <bean id="transactionManager"
    class="org.springframework.batch.support.transaction.ResourcelessTransactionManager" />

  <bean id="jobLauncher"
    class="org.springframework.batch.core.launch.support.SimpleJobLauncher">
    <property name="jobRepository" ref="jobRepository" />
  </bean>

</beans>

```

#### database.xml

```

<beans xmlns="http://www.springframework.org/schema/beans"
  xmlns:jdbc="http://www.springframework.org/schema/jdbc"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans-3.2.xsd
    http://www.springframework.org/schema/jdbc
    http://www.springframework.org/schema/jdbc/spring-jdbc-3.2.xsd">

  <!-- connect to MySQL database -->
  <bean id="dataSource"
    class="org.springframework.jdbc.datasource.DriverManagerDataSource">
    <property name="driverClassName" value="com.mysql.jdbc.Driver" />
    <property name="url" value="jdbc:mysql://localhost:3306/test" />
    <property name="username" value="root" />
    <property name="password" value="" />
  </bean>

  <bean id="transactionManager"
    class="org.springframework.batch.support.transaction.ResourcelessTransactionManager" />

  <!-- create job-meta tables automatically -->
  <jdbc:initialize-database data-source="dataSource">
    <jdbc:script location="org/springframework/batch/core/schema-drop-mysql.sql" />
    <jdbc:script location="org/springframework/batch/core/schema-mysql.sql" />
  </jdbc:initialize-database>

</beans>

```

## 5. Run It

The most simplest way to run a batch job.



```
package com.mkyong;

import org.springframework.batch.core.Job;
import org.springframework.batch.core.JobExecution;
import org.springframework.batch.core.JobParameters;
import org.springframework.batch.core.launch.JobLauncher;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

public class App {
    public static void main(String[] args) {

        String[] springConfig =
        {
            "spring/batch/jobs/job-hello-world.xml"
        };

        ApplicationContext context =
            new ClassPathXmlApplicationContext(springConfig);

        JobLauncher jobLauncher = (JobLauncher) context.getBean("jobLauncher");
        Job job = (Job) context.getBean("helloWorldJob");

        try {

            JobExecution execution = jobLauncher.run(job, new JobParameters());
            System.out.println("Exit Status : " + execution.getStatus());

        } catch (Exception e) {
            e.printStackTrace();
        }

        System.out.println("Done");
    }
}
```

## Output

### report.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<report>
  <record id="1001">
    <date>2013-07-29T00:00:00+08:00</date>
    <qty>980</qty>
    <sales>213100</sales>
    <staffName>mkyong</staffName>
  </record>
  <record id="1002">
    <date>2013-07-30T00:00:00+08:00</date>
    <qty>1080</qty>
    <sales>320200</sales>
    <staffName>staff 1</staffName>
  </record>
  <record id="1003">
    <date>2013-07-31T00:00:00+08:00</date>
    <qty>1200</qty>
    <sales>342197</sales>
    <staffName>staff 2</staffName>
  </record>
</report>
```

## In console

```
Jul 30, 2013 11:52:00 PM org.springframework.batch.core.launch.support.SimpleJobLauncher$1 run
INFO: Job: [FlowJob: [name=helloWorldJob]] launched with the following parameters: [{}]
Jul 30, 2013 11:52:00 PM org.springframework.batch.core.job.SimpleStepHandler handleStep
INFO: Executing step: [step1]
Processing...Report [id=1001, sales=213100, qty=980, staffName=mkyong]
Processing...Report [id=1002, sales=320200, qty=1080, staffName=staff 1]
Processing...Report [id=1003, sales=342197, qty=1200, staffName=staff 2]
Jul 30, 2013 11:52:00 PM org.springframework.batch.core.launch.support.SimpleJobLauncher$1 run
INFO: Job: [FlowJob: [name=helloWorldJob]] completed with the following parameters: [{}] and the following status: [COMPLETED]
```

Exit Status : COMPLETED  
Done

## Download Source Code

Download it – SpringBatch-Hello-World-Example.zip (<http://www.mkyong.com/wp-content/uploads/2013/07/SpringBatch-Hello-World-Example.zip>) (27 kb)

## References

1. What is Batch Processing ([http://en.wikipedia.org/wiki/Batch\\_processing](http://en.wikipedia.org/wiki/Batch_processing))
2. Spring Batch Frameworks (<http://static.springsource.org/spring-batch/>)
3. Spring Batch – Reference Documentation (<http://static.springsource.org/spring-batch/reference/html/>)

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The iPhone prototype was so secretive that software developers:

15

▼

A Never saw the hardware, and vice versa

B Didn't know about the touch screen

C Swore personal oaths to Steve Jobs

D Temporarily lived at Apple HQ

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## About the Author



mkyong

Founder of Mkyong.com (<http://mkyong.com>), love Java and open source stuff. Follow him on Twitter (<https://twitter.com/mkyong>), or befriend him on Facebook (<http://www.facebook.com/java.tutorial>) or Google Plus (<https://plus.google.com/110948163568945735692?rel=author>). If you like my tutorials, consider make a donation to these charities (<http://www.mkyong.com/blog/donate-to-charity/>).

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552k	<a href="#">How to validate email address with regular expression (/regular-expressions/how-to-validate-email-address-with-regular-expression/?utm_source=mkyong&amp;utm_medium=author&amp;utm_campaign=top-pv&amp;utm_content=16)</a>

680k

How to create XML file in Java - (DOM Parser) (/java/how-to-create-xml-file-in-java-dom/?utm\_source=mkyong&utm\_medium=author&utm\_campaign=top-pv&utm\_content=17)

878k

log4j.properties example (/logging/log4j-log4j-properties-examples/?utm\_source=mkyong&utm\_medium=author&utm\_campaign=top-pv&utm\_content=18)


609k

Spring Security hello world example (/spring-security/spring-security-hello-world-example/?utm\_source=mkyong&utm\_medium=author&utm\_campaign=top-pv&utm\_content=19)

657k


Spring 3 MVC and JSON example (/spring-mvc/spring-3-mvc-and-json-example/?utm\_source=mkyong&utm\_medium=author&utm\_campaign=top-pv&utm\_content=20)

## Leave a Reply



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Steve Cook


Guest

This is a "simple" example? I knew spring over engineered their crap, but I could have written it faster in assembler. (Ok, maybe that is a small exaggeration.)

 0 

 REPLY



🕒 2 months 22 days ago




Savani


Guest

Hi Mkyong – Could you please developed a code another way around? Please developed Spring Batch MongoDB to XML example. Also could you please guide on <http://stackoverflow.com/questions/41500945/cannot-convert-value-of-type-org-springframework-batch-item-xml-staxeeventitemwr> (<http://stackoverflow.com/questions/41500945/cannot-convert-value-of-type-org-springframework-batch-item-xml-staxeeventitemwr>)

 0 

 REPLY

🕒 6 months 4 days ago






magesh

Guest


Hi i want to read the the data from websphere mq and write it into oracle database using batch how can i write the batch job for it?

Please let me know how can i write for it .If possible provide me with a template

 0 

 REPLY



🕒 8 months 5 days ago




Imran Rajjad


Guest

can we read jobs from a database instead of the xml configuration file? is there an annotation version of this example also available?

 0 

 REPLY

🕒 9 months 11 hours ago






naveen

Guest


I am having the configuration like

even thought the job1 failed step is getting completed and going to the next step.

 0 

 REPLY

🕒 10 months 22 days ago



netbeans

Guest

Hi I am new to spring batch. I run the application and got this error as Exception in thread "main"  
org.springframework.beans.factory.BeanCreationException: Error creating bean with name  
'org.springframework.jdbc.datasource.init.DataSourceInitializer#0': Invocation of init method failed; nested exception is  
org.springframework.dao.DataAccessResourceFailureException: Failed to execute database script; nested exception is  
org.springframework.jdbcCannotGetJdbcConnectionException: Could not get JDBC Connection; nested exception is

com.mysql.jdbc.exceptions.jdbc4.CommunicationsException: Communications link failure The last packet sent successfully to the server was 0 milliseconds ago. The driver has not received any packets from the server. at  
 org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.initializeBean(AbstractAutowireCapableBeanFactory.java:1488) at  
 org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.doCreateBean(AbstractAutowireCapableBeanFactory.java:524) at  
 org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.createBean(AbstractAutowireCapableBeanFactory.java:461) at org.springframework.beans.factory.support.AbstractBeanFactory\$1.getObject(AbstractBeanFactory.java:295) at  
 org.springframework.beans.factory.support.DefaultSingletonBeanRegistry.getSingleton(DefaultSingletonBeanRegistry.java:223) at  
 org.springframework.beans.factory.support.AbstractBeanFactory.doGetBean(AbstractBeanFactory.java:292) at  
 org.springframework.beans.factory.support.AbstractBeanFactory.getBean(AbstractBeanFactory.java:194) at  
 org.springframework.beans.factory.support.DefaultListableBeanFactory.preInstantiateSingletons(DefaultListableBeanFactory.java:626) at  
 org.springframework.context.support.AbstractApplicationContext.finishBeanFactoryInitialization(AbstractApplicationContext.java:932) at  
 org.springframework.context.support.AbstractApplicationContext.refresh(AbstractApplicationContext.java:479) at... Read more »

👍 0 🗨️ REPLY

🕒 1 year 8 months ago



Guest

Prasanth Joy

hi i am new to spring technology.i have an one query.i want to retrieve 15 millions records then i need validate as per my requirement and finally i need to insert into appropriate tables.So please suggest me what is solution for this task and which technology its suitable for this task. please suggest some example.... Advance ,Thanks.

👍 0 🗨️ REPLY

🕒 1 year 9 months ago



Guest

Le Hoai

Why we need a jobRepository is mysql while don't save anything into database? (in this tutorial)

👍 0 🗨️ REPLY

🕒 2 years 6 months ago ^



Guest

Osama Abdulsattar

This is for SpringBatch itself to manage it's jobs and restart failed Jobs if required

👍 0 🗨️ REPLY

🕒 11 days 9 hours ago



Guest

krunal

what kind of Program u made it is showing java.lang.NoClassDefFoundError: org/springframework/xml/transform/StaxResult

👍 0 🗨️ REPLY

🕒 2 years 6 months ago



Guest

user12345

Hi I am new to spring batch and trying to run the application but getting error as

Exception in thread "main" org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'step1': Instantiation of bean failed; nested exception is java.lang.NoClassDefFoundError: org/springframework/retry/policy/RetryContextCache

at

org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.instantiateBean(AbstractAutowireCapableBeanFactory.java:1037)

at

org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.createBeanInstance(AbstractAutowireCapableBeanFactory.java:983)

at

org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.getSingletonFactoryBeanForTypeCheck(AbstractAutowireCapableBeanFactory.java:807)

at

org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.getTypeForFactoryBean(AbstractAutowireCapableBeanFactory.java:737)

at org.springframework.beans.factory.support.AbstractBeanFactory.isTypeMatch(AbstractBeanFactory.java:529)

```
at
org.springframework.batch.core.configuration.xml.CoreNamespacePostProcessor.injectJobRepositoryIntoSteps(CoreNamespacePostProcessor.java:71)

at
org.springframework.batch.core.configuration.xml.CoreNamespacePostProcessor.postProcessBeanFactory(CoreNamespacePostProcessor.java:55)

at
org.springframework.context.support.AbstractApplicationContext.invokeBeanFactoryPostProcessors(AbstractApplicationContext.java:694)

at
org.springframework.context.support.AbstractApplicationContext.invokeBeanFactoryPostProcessors(AbstractApplicationContext.java:684)

at org.springframework.context.support.AbstractApplicationContext.refresh(AbstractApplicationContext.java:461)

at org.springframework.context.support.ClassPathXmlApplicationContext.(ClassPathXmlApplicationContext.java:139)

at org.springframework.context.support.ClassPathXmlApplicationContext.(ClassPathXmlApplicationContext.java:93)

at com.mkyong.App.main(App.java:18)

Caused by: java.lang.NoClassDefFoundError: org/springframework/retry/policy/RetryContextCache

at java.lang.Class.getDeclaredConstructors0(Native Method)

at java.lang.Class.privateGetDeclaredConstructors(Class.java:2493)

at java.lang.Class.getConstructor0(Class.java:2803)

at java.lang.Class.getDeclaredConstructor(Class.java:2053)

at org.springframework.beans.factory.support.SimpleInstantiationStrategy.instantiate(SimpleInstantiationStrategy.java:78)

at
org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.instantiateBean(AbstractAutowireCapableBeanFactory.java:1030)

... 12 more
```

I have added all the required jars but not sure why this error. Can someone help me with this...

 0  [REPLY](#)

🕒 2 years 9 months ago ^



Surendra

Guest

I got the same issue, I added the below jars , it is working fine.

spring-retry-1.0.2.RELEASE.jar

spring-oxm-3.2.0.release.jar

 0  [REPLY](#)

🕒 24 days 5 minutes ago



James

Guest

Hi

I tried using the example on IntelliJ but the program works fine with exactly same output in the console but I don't any output in the report.xml. Do you know whats wrong please?

 0  [REPLY](#)

🕒 2 years 10 months ago



Srikant Das

Guest

Hi, I am getting Error: Could not find or load main class com.mkyong.App after importing your project into sts and when i execute the App.java. please help me.

 0  [REPLY](#)

🕒 3 years 14 days ago ^



Kiran Jonnalagadda

Guest

Me too having the same issue. Can anyone help?

 0  [REPLY](#)

🕒 2 months 28 days ago

**umut**

where do you send the email?

Guest



🕒 3 years 2 months ago

**abh**

Please write these tutorials with Java EE 7 batch also

Guest



🕒 3 years 7 months ago

**Ashok**

Hi , I am getting the following exception while executing the code. Please let me know how i could resolve the issue. SEVERE:  
Encountered an error executing the step

Guest

```
java.lang.IllegalStateExceptionjava.lang.IllegalStateException  
: Marshaller must support the class of the marshalled object  
at org.springframework.util.Assert.state(  
at org.springframework.util.Assert.state(  
Assert.java:385)
```



🕒 3 years 7 months ago ^

**Erling**

Late answer, but for reference you should check the Report class annotation:  
`@XmlElement(name = "record")`

Guest



🕒 2 years 7 months ago

**Jorge**

Sorry I would like to know how I can do this  
I want handling a transaction rollback externa but falls in the second batch

Guest



🕒 3 years 7 months ago

**Mohammed Qurashi**

Excellent tutorial. I was very easily able to implement it and later augment with my own code.What stand out is the professional,crisp explanation without getting bogged down to details. Great job.

Guest



🕒 3 years 8 months ago

**Joy**

Why every time it gives the result like this:  
Exit Status : FAILED  
Done

Guest



🕒 3 years 9 months ago

**kyu**

Thanks, This is very good post

Guest



🕒 3 years 9 months ago



Guest

Hardik Thakkar

I am getting below exception. Please help.

```
org.springframework.dao.DataIntegrityViolationException: PreparedStatementCallback; SQL [INSERT into
BATCH_JOB_EXECUTION(JOB_EXECUTION_ID, JOB_INSTANCE_ID, START_TIME, END_TIME, STATUS, EXIT_CODE,
EXIT_MESSAGE, VERSION, CREATE_TIME, LAST_UPDATED) values (?, ?, ?, ?, ?, ?, ?, ?, ?)]; Data truncation: Incorrect datetime
value: " " for column 'CREATE_TIME' at row 1; nested exception is com.mysql.jdbc.MySQLDataTruncation: Data truncation: Incorrect
datetime value: " " for column 'CREATE_TIME' at row 1 at
org.springframework.jdbc.support.SQLStateSQLExceptionTranslator.doTranslate(SQLStateSQLExceptionTranslator.java:101) at
org.springframework.jdbc.support.AbstractFallbackSQLExceptionTranslator.translate(AbstractFallbackSQLExceptionTranslator.java:72) at
org.springframework.jdbc.support.AbstractFallbackSQLExceptionTranslator.translate(AbstractFallbackSQLExceptionTranslator.java:80) at
org.springframework.jdbc.support.AbstractFallbackSQLExceptionTranslator.translate(AbstractFallbackSQLExceptionTranslator.java:80) at
org.springframework.jdbc.core.JdbcTemplate.execute(JdbcTemplate.java:602) at
org.springframework.jdbc.core.JdbcTemplate.update(JdbcTemplate.java:811) at
org.springframework.jdbc.core.JdbcTemplate.update(JdbcTemplate.java:867) at
org.springframework.jdbc.core.JdbcTemplate.update(JdbcTemplate.java:871) at
org.springframework.batch.core.repository.dao.JdbcJobExecutionDao.saveJobExecution(JdbcJobExecutionDao.java:138) at
org.springframework.batch.core.repository.support.SimpleJobRepository.createJobExecution(SimpleJobRepository.java:141) at
sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) at
sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:39) at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) at
java.lang.reflect.Method.invoke(Method.java:597) at
org.springframework.aop.support.AopUtils.invokeJoinpointUsingReflection(AopUtils.java:309) at
org.springframework.aop.framework.ReflectiveMethodInvocation.invokeJoinpoint(ReflectiveMethodInvocation.java:183) at
org.springframework.aop.framework.ReflectiveMethodInvocation.proceed(ReflectiveMethodInvocation.java:150) at
org.springframework.transaction.interceptor.TransactionInterceptor.invoke(TransactionInterceptor.java:110) at
org.springframework.aop.framework.ReflectiveMethodInvocation.proceed(ReflectiveMethodInvocation.java:172)... Read more »
```



3 years 9 months ago



Guest

Piero

Good Tutorial...

But I can not execute it. I'm asking you if I need the database server on the localhost according database.xml file

This is the stacktrace when I try run main into App.java

Best Regards

The last packet sent successfully to the server was 0 milliseconds ago. The driver has not received any packets from the server.

at

```
org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.initializeBean(AbstractAutowireCapableBeanFactory.java:
a:1488)
```

at

```
org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.doCreateBean(AbstractAutowireCapableBeanFactory.java:
va:524)
```

at

```
org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.createBean(AbstractAutowireCapableBeanFactory.java:
461)
```

```
at org.springframework.beans.factory.support.AbstractBeanFactory$1.getObject(AbstractBeanFactory.java:295)
```

```
at org.springframework.beans.factory.support.DefaultSingletonBeanRegistry.getSingleton(DefaultSingletonBeanRegistry.java:223)
```

```
at org.springframework.beans.factory.support.AbstractBeanFactory.doGetBean(AbstractBeanFactory.java:292)
```

```
at org.springframework.beans.factory.support.AbstractBeanFactory.getBean(AbstractBeanFactory.java:194)
```

```
at org.springframework.beans.factory.support.DefaultListableBeanFactory.preInstantiateSingletons(DefaultListableBeanFactory.java:626)
```

```
at org.springframework.context.support.AbstractApplicationContext.finishBeanFactoryInitialization(AbstractApplicationContext.java:932)
```

```
at org.springframework.context.support.AbstractApplicationContext.refresh(AbstractApplicationContext.java:479)
```

```
at org.springframework.context.support.ClassPathXmlApplicationContext.(ClassPathXmlApplicationContext.java:139)
```

```
at org.springframework.context.support.ClassPathXmlApplicationContext.(ClassPathXmlApplicationContext.java:93)
```

```
at com.mkymong.App.main(App.java:19)
```

Caused by: org.springframework.dao.DataAccessResourceFailureException: Failed to execute database script; nested exception is

org.springframework.jdbc.CannotGetJdbcConnectionException: Could not get JDBC Connection; nested exception is

com.mysql.jdbc.exceptions.jdbc4.CommunicationsException: Communications link failure



3 years 11 months ago



Guest

Anand

Hi Piero, did you get the answer to your problem because I'm also getting same error when I build the project "maven clean install". Do we need to change anything in database.xml or do I need to install mysql on my local machine(mac laptop) ? Error



===== SEVERE: Caught exception while allowing  
TestExecutionListener [org.springframework.test.context.support.DependencyInjectionTestExecutionListener@342075b] to  
prepare test instance [com.mkyong.AppTest@63f0e908] java.lang.IllegalStateException: Failed to load ApplicationContext at  
org.springframework.test.context.TestContext.getApplicationContext(TestContext.java:157) at  
org.springframework.test.context.support.DependencyInjectionTestExecutionListener.injectDependencies(DependencyInjectionTest  
ExecutionListener.java:109) at  
org.springframework.test.context.support.DependencyInjectionTestExecutionListener.prepareTestInstance(DependencyInjectionT  
estExecutionListener.java:75) at  
org.springframework.test.context.TestContextManager.prepareTestInstance(TestContextManager.java:313) at  
org.springframework.test.context.junit4.SpringJUnit4ClassRunner.createTest(SpringJUnit4ClassRunner.java:211) at  
org.springframework.test.context.junit4.SpringJUnit4ClassRunner\$1.runReflectiveCall(SpringJUnit4ClassRunner.java:288) at  
org.junit.internal.runners.model.ReflectiveCallable.run(ReflectiveCallable.java:12) at  
org.springframework.test.context.junit4.SpringJUnit4ClassRunner.methodBlock(SpringJUnit4ClassRunner.java:284) at  
org.springframework.test.context.junit4.SpringJUnit4ClassRunner.runChild(SpringJUnit4ClassRunner.java:231) at  
org.springframework.test.context.junit4.SpringJUnit4ClassRunner.runChild(SpringJUnit4ClassRunner.java:88) at  
org.junit.runners.ParentRunner\$3.run(ParentRunner.java:238) at  
org.junit.runners.ParentRunner\$1.schedule(ParentRunner.java:63) at  
org.junit.runners.ParentRunner.runChildren(ParentRunner.java:236) at  
org.junit.runners.ParentRunner.access\$000(ParentRunner.java:53) at  
org.junit.runners.ParentRunner\$2.evaluate(ParentRunner.java:229) at  
org.springframework.test.context.junit4.statements.RunBeforeTestClassCallbacks.evaluate(RunBeforeTestClassCallbacks.java:6  
1) at  
org.springframework.test.context.junit4.statements.RunAfterTestClassCallbacks.evaluate(RunAfterTestClassCallbacks.java:71) at  
org.junit.runners.ParentRunner.run(ParentRunner.java:309)... Read more »

👍 0 🗨️ REPLY

🕒 3 years 4 months ago ^



sds

kkk

Guest

👍 0 🗨️ REPLY

🕒 6 months 16 days ago



nguoi saigon

it works well, you should download mysql and re-check with pass

Guest

👍 0 🗨️ REPLY

🕒 2 years 1 month ago



Anand

Got it working, downloaded MYSQL database and it worked with its default test schema. It was not working on my mac machine because mysql db on mac had some issue.

Guest

👍 0 🗨️ REPLY

🕒 3 years 4 months ago



lakshmi

Hi,

I faced a couple of problems from the db side(using postgres). When executing first time comment the drop schema, then uncomment from consecutive executions. Create proper role(required in postgres), user and password(not mandatory).

From Maven side got deploy issues(like Schema files were not resolved). Solved them by using assembly plugins.

Tutorial executed just fine. Thanks. Got to know a lot.

Guest

👍 0 🗨️ REPLY

🕒 3 years 9 months ago



diego

hihello you have tried to see if the server is run, and if the login username and password are correct with those defined in the file database.xml,

Guest

👍 0 🗨️ REPLY

🕒 3 years 10 months ago



Girish

Guest

processing the batch application?

Thanks

Is it possible to get more details about how to handle the exit codes while

0

REPLY

3 years 11 months ago



Krishna

Guest

thanks, I am really waiting for this type of information. Keep Posting..

0

REPLY

3 years 11 months ago

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+3k	How to access JSON object in JavaScript (/javascript/how-to-access-json-object-in-javascript/?utm_source=mkyong&utm_medium=sidebar&utm_campaign=100k-500k&utm_content=7)
+3k	Spring @PropertySource example (/spring/spring-property-sources-example/?utm_source=mkyong&utm_medium=sidebar&utm_campaign=100k-500k&utm_content=8)
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+4k	