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## Spring 4 + Hibernate 4 + MySQL+ Maven Integration example (Annotations+XML)

🕒 August 20, 2014 👤 websystiqueadmin

In this tutorial , we will integrate Spring 4 with [Hibernate 4](#) using annotation based configuration. We will develop a simple CRUD java application , creating hibernate entities, saving data in [MySQL database](#) , performing database CRUD operations within [transaction](#) , and learn how different layers interacts with each-other in typical enterprise application, all using [annotation based configuration](#) . We will also see corresponding XML configuration side-by-side for comparison.

For Spring MVC based application, checkout [Spring4 MVC Hibernate and MySQL integration](#).

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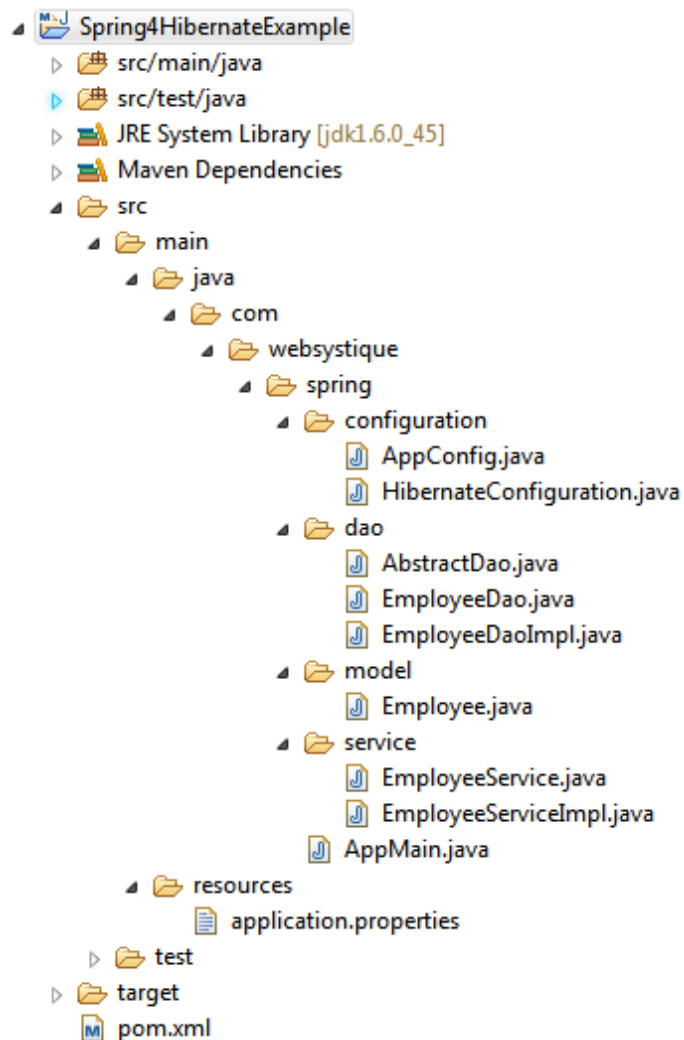
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### Following technologies being used:

- Spring 4.0.6.RELEASE
- Hibernate Core 4.3.6.Final
- MySQL Server 5.6
- Joda-time 2.3
- Maven 3
- JDK 1.6
- Eclipse JUNO Service Release 2

### Project directory structure



Let's now add the content mentioned in above structure explaining each in detail.

## Step 1: Update pom.xml to include required dependencies

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://ma

  <modelVersion>4.0.0</modelVersion>
  <groupId>com.websystique.spring</groupId>
  <artifactId>Spring4HibernateExample</artifactId>
  <version>1.0.0</version>
  <packaging>jar</packaging>

  <name>Spring4HibernateExample</name>

  <properties>
    <springframework.version>4.0.6.RELEASE</springframework.ver
    <hibernate.version>4.3.6.Final</hibernate.version>
    <mysql.connector.version>5.1.31</mysql.connector.version>
    <joda-time.version>2.3</joda-time.version>
  </properties>

  <dependencies>

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

    <!-- Hibernate -->
    <dependency>
      <groupId>org.hibernate</groupId>
      <artifactId>hibernate-core</artifactId>
      <version>${hibernate.version}</version>
    </dependency>

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

    <!-- Joda-Time -->
    <dependency>
      <groupId>joda-time</groupId>
      <artifactId>joda-time</artifactId>
      <version>${joda-time.version}</version>
    </dependency>

    <!-- To map JodaTime with database type -->
    <dependency>
      <groupId>org.jadira.usertype</groupId>
      <artifactId>usertype.core</artifactId>
      <version>3.0.0.CR1</version>
    </dependency>
```

```
</dependencies>
```

```
</project>
```

Spring, Hibernate & MySQL connector dependencies are pretty obvious. We have also included joda-time as we will use joda-time library for any date manipulation. usertype-core is included to provide the mapping between database date-type and joda-time LocalDate.

## Step 2: Configure Hibernate

```
com.websystique.spring.configuration.HibernateConfiguration
```

```
package com.websystique.spring.configuration;

import java.util.Properties;

import javax.sql.DataSource;

import org.hibernate.SessionFactory;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.context.annotation.Bean;
import org.springframework.context.annotation.ComponentScan;
import org.springframework.context.annotation.Configuration;
import org.springframework.context.annotation.EnableTransactionManagement;
import org.springframework.core.env.Environment;
import org.springframework.jdbc.datasource.DriverManagerDataSource;
import org.springframework.orm.hibernate4.HibernateTransactionManager;
import org.springframework.orm.hibernate4.LocalSessionFactoryBean;
import org.springframework.transaction.annotation.EnableTransactionManagement;

@Configuration
@EnableTransactionManagement
@ComponentScan({ "com.websystique.spring.configuration" })
@PropertySource(value = { "classpath:application.properties" })
public class HibernateConfiguration {

    @Autowired
    private Environment environment;

    @Bean
    public LocalSessionFactoryBean sessionFactory() {
        LocalSessionFactoryBean sessionFactory = new LocalSessionFactoryBean();
        sessionFactory.setDataSource(dataSource());
        sessionFactory.setPackagesToScan(new String[] { "com.websystique.spring.configuration" });
        sessionFactory.setHibernateProperties(hibernateProperties());
        return sessionFactory;
    }

    @Bean
    public DataSource dataSource() {
        DriverManagerDataSource dataSource = new DriverManagerDataSource();
        dataSource.setDriverClassName(environment.getRequiredProperty("jdbc.driverClassName"));
        dataSource.setUrl(environment.getRequiredProperty("jdbc.url"));
        dataSource.setUsername(environment.getRequiredProperty("jdbc.username"));
        dataSource.setPassword(environment.getRequiredProperty("jdbc.password"));
        return dataSource;
    }

    private Properties hibernateProperties() {
        Properties properties = new Properties();
        properties.put("hibernate.dialect", environment.getRequiredProperty("hibernate.dialect"));
        properties.put("hibernate.show_sql", environment.getRequiredProperty("hibernate.show_sql"));
        properties.put("hibernate.format_sql", environment.getRequiredProperty("hibernate.format_sql"));
    }
}
```

```

        return properties;
    }

    @Bean
    @Autowired
    public HibernateTransactionManager transactionManager(SessionFactory sessionFactory) {
        HibernateTransactionManager txManager = new HibernateTransactionManager(sessionFactory);
        txManager.setSessionFactory(sessionFactory);
        return txManager;
    }
}

```

`@Configuration` indicates that this class contains one or more bean methods annotated with `@Bean` producing beans manageable by spring container. In our case, this class represent hibernate configuration.

`@ComponentScan` is equivalent to `context:component-scan base-package="..."` in xml, providing with where to look for spring managed beans/classes.

`@EnableTransactionManagement` is equivalent to Spring's tx:\* XML namespace, enabling Spring's annotation-driven transaction management capability.

`@PropertySource` is used to declare a set of properties(defined in a properties file in application classpath) in Spring run-time `Environment`, providing flexibility to have different values in different application environments.

Method `sessionFactory()` is creating a `LocalSessionFactoryBean`, which exactly mirrors the XML based configuration : We need a `dataSource` and hibernate properties (same as `hibernate.properties`). Thanks to `@PropertySource`, we can externalize the real values in a .properties file, and use Spring's `Environment` to fetch the value corresponding to an item. Once the `SessionFactory` is created, it will be injected into Bean method `transactionManager` which may eventually provide transaction support for the sessions created by this `SessionFactory`.

Below is the properties file used in this post.

Below is the properties file used in this post.

`/src/main/resources/application.properties`

```

jdbc.driverClassName = com.mysql.jdbc.Driver
jdbc.url = jdbc:mysql://localhost:3306/websystique
jdbc.username = myuser
jdbc.password = mypassword
hibernate.dialect = org.hibernate.dialect.MySQLDialect
hibernate.show_sql = false
hibernate.format_sql = false

```

## Corresponding XML based Hibernate configuration

```

<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xmlns:context="http://www.springframework.org/schema/context"
       xmlns:tx="http://www.springframework.org/schema/tx"
       xmlns:aop="http://www.springframework.org/schema/aop"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
                           http://www.springframework.org/schema/context
                           http://www.springframework.org/schema/aop
                           http://www.springframework.org/schema/tx"

    <context:property-placeholder location="classpath:application.p

    <context:component-scan base-package="com.websystique.spring"

    <tx:annotation-driven transaction-manager="transactionManager"/

    <bean id="dataSource" class="org.springframework.jdbc.datasource
        <property name="driverClassName" value="${jdbc.driverClassN
        <property name="url" value="${jdbc.url}"/>
        <property name="username" value="${jdbc.username}" />
        <property name="password" value="${jdbc.password}"/>

    </bean>

    <bean id="sessionFactory" class="org.springframework.orm.hibernate
        <property name="dataSource" ref="dataSource"/>
        <property name="packagesToScan">
            <list>
                <value>com.websystique.spring.model</value>
            </list>
        </property>
        <property name="hibernateProperties">
            <props>
                <prop key="hibernate.dialect">${hibernate.dialect}<
                <prop key="hibernate.show_sql">${hibernate.show_sql
                <prop key="hibernate.format_sql">${hibernate.format

            </props>
        </property>
    </bean>

    <bean id="transactionManager" class="org.springframework.orm.h
        <property name="sessionFactory" ref="sessionFactory" />
    </bean>

    <bean id="persistenceExceptionTranslationPostProcessor"
        class="org.springframework.dao.annotation.PersistenceExcept

</beans>

```

### Step 3: Configure Spring

```
com.websystique.spring.configuration.AppConfig
```

```

package com.websystique.spring.configuration;

import org.springframework.context.annotation.ComponentScan;
import org.springframework.context.annotation.Configuration;

@Configuration
@ComponentScan(basePackages = "com.websystique.spring")
public class AppConfig {

}

```

In our simple example, this class is empty and only reason for it's existence is `@ComponentScan` which provides beans auto-detection facility. You may completely remove above configuration and put the component scan logic in application context level (in Main ). In full-fledged applications, you may find it handy to configure some beans (e.g. messageSource, PropertySourcesPlaceholderConfigurer) in Configuration class.

## Corresponding XML based Spring Configuration

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

  <context:component-scan base-package="com.websystique.spring" /

</beans>
```

As for as Annotation based configuration goes, this is all we need to do. Now to make the application complete, we will add service layer, dao layer, Domain object, sample database schema and run the application.

## Step 4: Add DAO Layer

`com.websystique.spring.dao.AbstractDao`

```
package com.websystique.spring.dao;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.springframework.beans.factory.annotation.Autowired;

public abstract class AbstractDao {

    @Autowired
    private SessionFactory sessionFactory;

    protected Session getSession() {
        return sessionFactory.getCurrentSession();
    }

    public void persist(Object entity) {
        getSession().persist(entity);
    }

    public void delete(Object entity) {
        getSession().delete(entity);
    }
}
```

Notice above, that SessionFactory we have created earlier in step 2, will be auto-wired here. This class serve as base class for database related

operations.

### com.websystique.spring.dao.EmployeeDao

```
package com.websystique.spring.dao;

import java.util.List;

import com.websystique.spring.model.Employee;

public interface EmployeeDao {

    void saveEmployee(Employee employee);

    List<Employee> findAllEmployees();

    void deleteEmployeeBySsn(String ssn);

    Employee findBySsn(String ssn);

    void updateEmployee(Employee employee);

}
```

### com.websystique.spring.dao.EmployeeDaoImpl

```
package com.websystique.spring.dao;

import java.util.List;

import org.hibernate.Criteria;
import org.hibernate.Query;
import org.hibernate.criterion.Restrictions;
import org.springframework.stereotype.Repository;

import com.websystique.spring.model.Employee;

@Repository("employeeDao")
public class EmployeeDaoImpl extends AbstractDao implements EmployeeDao {

    public void saveEmployee(Employee employee) {
        persist(employee);
    }

    @SuppressWarnings("unchecked")
    public List<Employee> findAllEmployees() {
        Criteria criteria = getSession().createCriteria(Employee.class);
        return (List<Employee>) criteria.list();
    }

    public void deleteEmployeeBySsn(String ssn) {
        Query query = getSession().createSQLQuery("delete from Employee where ssn = ?");
        query.setString("ssn", ssn);
        query.executeUpdate();
    }

    public Employee findBySsn(String ssn){
        Criteria criteria = getSession().createCriteria(Employee.class);
        criteria.add(Restrictions.eq("ssn", ssn));
        return (Employee) criteria.uniqueResult();
    }

    public void updateEmployee(Employee employee){
        getSession().update(employee);
    }

}
```



```
}
```

## Step 5: Add Service Layer

`com.websystique.spring.service.EmployeeService`

```
package com.websystique.spring.service;

import java.util.List;

import com.websystique.spring.model.Employee;

public interface EmployeeService {

    void saveEmployee(Employee employee);

    List<Employee> findAllEmployees();

    void deleteEmployeeBySsn(String ssn);

    Employee findBySsn(String ssn);

    void updateEmployee(Employee employee);
}
```

`com.websystique.spring.service.EmployeeServiceImpl`

```
package com.websystique.spring.service;

import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import org.springframework.transaction.annotation.Transactional;

import com.websystique.spring.dao.EmployeeDao;
import com.websystique.spring.model.Employee;

@Service("employeeService")
@Transactional
public class EmployeeServiceImpl implements EmployeeService{

    @Autowired
    private EmployeeDao dao;

    public void saveEmployee(Employee employee) {
        dao.saveEmployee(employee);
    }

    public List<Employee> findAllEmployees() {
        return dao.findAllEmployees();
    }

    public void deleteEmployeeBySsn(String ssn) {
        dao.deleteEmployeeBySsn(ssn);
    }

    public Employee findBySsn(String ssn) {
        return dao.findBySsn(ssn);
    }

    public void updateEmployee(Employee employee){
```

```
        dao.updateEmployee(employee);  
    }  
}
```

Most interesting part above is `@Transactional` which starts a transaction on each method start, and commits it on each method exit ( or rollback if method was failed due to an error). Note that since the transaction are on method scope, and inside method we are using DAO, DAO method will be executed within same transaction.

## Step 6: Create Domain Entity Class(POJO)

Let's create the actual Employee Entity itself whose instances we will be playing with in database.

```
com.websystique.spring.model.Employee
```

```
package com.websystique.spring.model;  
  
import java.math.BigDecimal;  
  
import javax.persistence.Column;  
import javax.persistence.Entity;  
import javax.persistence.GeneratedValue;  
import javax.persistence.GenerationType;  
import javax.persistence.Id;  
import javax.persistence.Table;  
  
import org.hibernate.annotations.Type;  
import org.joda.time.LocalDate;  
  
@Entity  
@Table(name="EMPLOYEE")  
public class Employee {  
  
    @Id  
    @GeneratedValue(strategy = GenerationType.IDENTITY)  
    private int id;  
  
    @Column(name = "NAME", nullable = false)  
    private String name;  
  
    @Column(name = "JOINING_DATE", nullable = false)  
    @Type(type="org.jadira.usertype.dateandtime.joda.PersistentLocalDate")  
    private LocalDate joiningDate;  
  
    @Column(name = "SALARY", nullable = false)  
    private BigDecimal salary;  
  
    @Column(name = "SSN", unique=true, nullable = false)  
    private String ssn;  
  
    public int getId() {  
        return id;  
    }  
  
    public void setId(int id) {  
        this.id = id;  
    }  
  
    public String getName() {  
        return name;  
    }  
}
```

```

public void setName(String name) {
    this.name = name;
}

public LocalDate getJoiningDate() {
    return joiningDate;
}

public void setJoiningDate(LocalDate joiningDate) {
    this.joiningDate = joiningDate;
}

public BigDecimal getSalary() {
    return salary;
}

public void setSalary(BigDecimal salary) {
    this.salary = salary;
}

public String getSsn() {
    return ssn;
}

public void setSsn(String ssn) {
    this.ssn = ssn;
}

@Override
public int hashCode() {
    final int prime = 31;
    int result = 1;
    result = prime * result + id;
    result = prime * result + ((ssn == null) ? 0 : ssn.hashCode());
    return result;
}

@Override
public boolean equals(Object obj) {
    if (this == obj)
        return true;
    if (obj == null)
        return false;
    if (!(obj instanceof Employee))
        return false;
    Employee other = (Employee) obj;
    if (id != other.id)
        return false;
    if (ssn == null) {
        if (other.ssn != null)
            return false;
    } else if (!ssn.equals(other.ssn))
        return false;
    return true;
}

@Override
public String toString() {
    return "Employee [id=" + id + ", name=" + name + ", joiningDate=" + joiningDate + ", salary=" + salary + ", ssn=" + ssn + "]";
}
}

```

This is a standard Entity class annotated with JPA annotations `@Entity`, `@Table`, `@Column` along with hibernate specific annotation `@Type`

which we are using to provide mapping between database date type and Joda-Time `LocalDate`

## Step 7: Create Schema in database

```
CREATE TABLE EMPLOYEE(  
    id INT NOT NULL auto_increment,  
    name VARCHAR(50) NOT NULL,  
    joining_date DATE NOT NULL,  
    salary DOUBLE NOT NULL,  
    ssn VARCHAR(30) NOT NULL UNIQUE,  
    PRIMARY KEY (id)  
);
```

Please visit [MySQL installation on Local PC](#) in case you are finding difficulties in setting up MySQL locally.

## Step 8: Create Main to run as Java Application

```
package com.websystique.spring;  
  
import java.math.BigDecimal;  
import java.util.List;  
  
import org.joda.time.LocalDate;  
import org.springframework.context.annotation.AnnotationConfigApplicati  
import org.springframework.context.support.AbstractApplicationContext;  
  
import com.websystique.spring.configuration.AppConfig;  
import com.websystique.spring.model.Employee;  
import com.websystique.spring.service.EmployeeService;  
  
public class AppMain {  
  
    public static void main(String args[]) {  
        AbstractApplicationContext context = new AnnotationConfigAp  
  
        EmployeeService service = (EmployeeService) context.getBear  
  
        /*  
         * Create Employee1  
         */  
        Employee employee1 = new Employee();  
        employee1.setName("Han Yenn");  
        employee1.setJoiningDate(new LocalDate(2010, 10, 10));  
        employee1.setSalary(new BigDecimal(10000));  
        employee1.setSsn("ssn00000001");  
  
        /*  
         * Create Employee2  
         */  
        Employee employee2 = new Employee();  
        employee2.setName("Dan Thomas");  
        employee2.setJoiningDate(new LocalDate(2012, 11, 11));  
        employee2.setSalary(new BigDecimal(20000));  
        employee2.setSsn("ssn00000002");  
  
        /*  
         * Persist both Employees  
         */  
        service.saveEmployee(employee1);  
        service.saveEmployee(employee2);  
    }  
}
```

```
    /*
    * Get all employees list from database
    */
    List<Employee> employees = service.findAllEmployees();
    for (Employee emp : employees) {
        System.out.println(emp);
    }

    /*
    * delete an employee
    */
    service.deleteEmployeeBySsn("ssn00000002");

    /*
    * update an employee
    */

    Employee employee = service.findBySsn("ssn00000001");
    employee.setSalary(new BigDecimal(50000));
    service.updateEmployee(employee);

    /*
    * Get all employees list from database
    */
    List<Employee> employeeList = service.findAllEmployees();
    for (Employee emp : employeeList) {
        System.out.println(emp);
    }

    context.close();
}
}
```

Note : In case you want to drop AppConfig altogether, in above main, you just have to replace

```
AbstractApplicationContext context = new AnnotationConfigApplicatio
```

with

```
AnnotationConfigApplicationContext context = new AnnotationConfigA
context.scan("com.websystique.spring");
context.refresh();
```

Rest of code remains same. Run above program, you will see following output

```
Employee [id=1, name=Han Yenn, joiningDate=2010-10-10, salary=10000
Employee [id=2, name=Dan Thomas, joiningDate=2012-11-11, salary=200
Employee [id=1, name=Han Yenn, joiningDate=2010-10-10, salary=50000
```

That's it.

## **Download Source Code**

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## References

- [Spring framework](#)
- [Hibernate](#)



### **websystiqueadmin**

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**Guilherme Marquesini Reis Ribe** • 15 days ago

Hi websys.

I'm trying to use this code in a old webserver that don't use Spring MVC, its using @WebServlet of Javax. I just want to include the spring data to manage my transactions instead of I do this manually.

I made all the configurations correctly. I'm trying to call my UserService but I'm getting a NullPointerException when I call a method of this class, like:

```
user = userService.createUser(user);
```

I believe that the Spring Data didnt starts with my application context. I didnt use the :

```
AnnotationConfigApplicationContext context = new  
AnnotationConfigApplicationContext();  
context.scan("com.websystique.");  
context.refresh();
```

[see more](#) |  • Reply • Share ▸**websystique** Mod  Guilherme Marquesini Reis Ribe  
• 13 days ago

Hi Guilherme, Did you try to simply declare contextLoaderListner in web.xml and then provide a seperate XML file [using contextConfigLocation] in which specifying context:component-scan with path to your packages?It should be sufficient.

 |  • Reply • Share ▸**Guilherme Marquesini Reis Ribe**  websystique  
• 12 days ago

Hi websys. Thanks for the reply. I solved this without Spring, opening and closing each session on each DAO. Is a old approach of course. I will

recommend to migrate to Spring on the next releases.

Thanks.

^ | v • Reply • Share ›



**Luxmanrao Potadar** • 5 months ago

hi,

I am working on your examples. When I created your examples with STS and execute them I am getting error as:Exception in thread "main"

org.springframework.beans.factory.NoSuchBeanDefinitionException  
No bean named "..." but when I download your code and execute it works fine. I am not getting what is causing this issue. Even I tried creating sample maven projects and executed the code I get same error.

^ | v • Reply • Share ›



**websystique** Mod ➔ Luxmanrao Potadar • 5 months ago

Hi Laxmanrao,

Could you please post the full exception here, if possible? I want to know which Bean it is complaining about.

^ | v • Reply • Share ›



**deepak** • 6 months ago

my data source look like

jdbc.driverClassName = oracle.jdbc.driver.OracleDriver

jdbc.url = jdbc:oracle:thin:@localhost:1521:xe

jdbc.username = hr

jdbc.password = hr

hibernate.dialect = org.hibernate.dialect.Oracle10gDialect

hibernate.show\_sql = false

hibernate.format\_sql = false

^ | v • Reply • Share ›



**websystique** Mod ➔ deepak • 6 months ago

Hey Deepak,

If this file is in classpath, it will be found. I see that you are getting following error

Caused by: java.lang.IllegalStateException: required key [jdbc:oracle:thin:@localhost:1521:xe] not found at  
org.springframework.core.env.AbstractPropertyResolver.ge

Can you check if your database url is OK? And you referring to this using a KEY defined in properties file  
dataSource.setUrl(environment.getRequiredProperty("jdbc.u

This error gives me impression that you tried to use something like  
dataSource.setUrl(environment.getRequiredProperty("jdbc:o



^ | v • Reply • Share ›



**deepak** → websystique • 5 months ago

now i changed  
`dataSource.setUrl(environment.getRequiredProperty`  
 it saying `java.lang.IllegalStateException: required key [hibernate.show_sql ] not found.`  
 Instantiation of bean failed-hibernateProperties and sessionFactory.

^ | v • Reply • Share ›



**websystique** Mod → deepak  
 • 5 months ago

Hi Deepak, Do you have more than one properties file in your project? Are you sure you are using only annotation config( and not additional XML file with `propertyplaceholderconfig` defined in it)? It won't matter much but where exactly did you placed the properties file? Did you try to run the project as it is from download, to see if you succeed to run it? Which version of Spring are you using? Example is so simple & straight-forward , i don't see why it won't work for you.

^ | v • Reply • Share ›



**deepak** → deepak • 5 months ago

Hi,  
 If u have a skype id..plz share with me on my mail [id.so](mailto:deepak@id.so) that i could share my screen and show you what happening.

^ | v • Reply • Share ›



**deepak** • 6 months ago

looks like spring container is unable to find my property file where i defined my data source

^ | v • Reply • Share ›



**deepak** • 6 months ago

I wrote my code this way..

`@Configuration`

`@EnableTransactionManagement`

`@ComponentScan({"com.spring4hibernate.configuration"})`

`@PropertySource(value = {"classpath:application.properti..."})`

`public class HibernateConfiguration {`

`===compiler===`

Aug 17, 2015 3:35:41 PM

`org.springframework.context.annotation.AnnotationConfigApplication`

prepareKerresn

INFO: Refreshing

org.springframework.context.annotation.AnnotationConfigApplication

startup date [Mon Aug 17 15:35:41 IST 2015]; root of context

hierarchy

Aug 17, 2015 3:35:42 PM

org.springframework.jdbc.datasource.DriverManagerDataSource

setDriverClassName

INFO: Loaded JDBC driver: oracle.jdbc.driver.OracleDriver

---

[see more](#)

^ | v • Reply • Share ›



**deepak** • 6 months ago

@PropertySource(value = {"classpath:application.properti..."}).Do i need to specify my classpath to resource folder explicitly...need help!!

^ | v • Reply • Share ›



**websystique** Mod ➔ deepak • 6 months ago

No you don't need to do anything special for resource folder.It is in classpath

^ | v • Reply • Share ›



**Guilherme Marquesini Reis Ribe** • 7 months ago

Thank you sir. It's working . Good example

^ | v • Reply • Share ›



**websystique** Mod ➔ Guilherme Marquesini Reis Ribe • 6 months ago

Hey Guilherme,

Glad it helped. Many Thanks for your feedback.

^ | v • Reply • Share ›



**Ajeet Mohan** • 7 months ago

I am running in Eclipse, getting exception on executing mail method, No bean named 'employeeService' is defined, I have added all the jars required... plz advice.

^ | v • Reply • Share ›



**websystique** Mod ➔ Ajeet Mohan • 7 months ago

Hey Ajeet, make sure to annotate your service implementation class with Spring annotation  
[@Service("employeeService")]

^ | v • Reply • Share ›



**Nick Yashaev** ➔ websystique • 7 months ago

doesnt work for me too ...it is annotated , and still nothing

10:19:29 2015 ,04 11 PM

org.springframework.context.annotation.AnnotationC  
prepareRefresh

INFO: Refreshing

org.springframework.context.annotation.AnnotationC  
startup date [Tue Aug 04 22:19:29 IDT 2015]; root of  
context hierarchy

Exception in thread "main"

org.springframework.beans.factory.NoSuchBeanDefi  
No bean named 'userService' is defined

at

org.springframework.beans.factory.support.DefaultLi  
at

org.springframework.beans.factory.support.Abstractf  
at

org.springframework.beans.factory.support.Abstractf  
at

org.springframework.beans.factory.support.Abstractf  
at

org.springframework.context.support.AbstractApplic  
at

com.websystique.spring.AppMain.main(AppMain.jav

here is the trace...

^ | v • Reply • Share ›



**websystique** Mod → Nick Yashaev  
• 7 months ago

Hi Nick, Are you sure you are not mixing up  
this project with other projects you might be  
working/trying on? We don't have any  
userService in this project. We have only  
EmployeeService.

Look at above AppMain class, basically this  
line :

```
EmployeeService service =  
(EmployeeService)  
context.getBean("employeeService");
```

Download the project and try again please.  
Let me know if any issue.

^ | v • Reply • Share ›



**Nick Yashaev** → websystique  
• 7 months ago

i have done the same thing with the same  
annotations , just my class is called user and  
not employee.... and im having the same  
issue the first commenter had...

the issue is that i dont understand this even if it supposed to work , HOW ?  
there is no "EmployeeManager" Bean defined at anyplace , how can we get that bean ?

^ | v • Reply • Share ›



**websystique** Mod → Nick Yashaev  
• 7 months ago

There is no EmployeeManager, but there is an EmployeeServiceImpl defined above with "employeeService"

```
@service("employeeService")
@Transactional
public class EmployeeServiceImpl
implements EmployeeService
```

And this employeeService is then looked up in AppMain

```
EmployeeService service =
(EmployeeService)
context.getBean("employeeService");
```

^ | v • Reply • Share ›



**Manjunath M** • 10 months ago

Does all the set up will be same for linux as well.

^ | v • Reply • Share ›



**websystique** Mod → Manjunath M • 9 months ago

Hi Manjunath,

Yes it should remain same.

^ | v • Reply • Share ›



**Mythul** • a year ago

Great guide. Love it.

^ | v • Reply • Share ›



**Evan Hu** • a year ago

Thank you sir. It's working very well in my local pc.

^ | v • Reply • Share ›



**Ramu** • 8 hours ago

hi sir i tried to use your code in my project i ma getting this exception please help me

Exception in thread "main"

```
org.springframework.transaction.CannotCreateTransactionExceptio
Could not open Hibernate Session for transaction; nested exception
is org.hibernate.exception.SQLGrammarException: Could not open
```

connection

at

org.springframework.orm.hibernate4.HibernateTransactionManager.

at

org.springframework.transaction.support.AbstractPlatformTransacti

at

org.springframework.transaction.interceptor.TransactionAspectSup

at

---

[see more](#)

[^](#) | [v](#) • [Reply](#) • [Share](#) ›



**otuwa** • 6 months ago

Hi,

I followed your tutorial. It was really helpfull. After running it once, i ran the application again. But then error occured saying that duplicate entry and cannot execute. Then I tried adding "hibernate.hbm2ddl.auto=create" and it didn't work even. Please help me out

[^](#) | [v](#) • [Reply](#) • [Share](#) ›



**otuwa** → otuwa • 6 months ago

ERROR: Duplicate entry 'ssn00000001' for key 'ssn'

Exception in thread "main"

org.hibernate.exception.ConstraintViolationException: could not execute statement

at

org.hibernate.exception.internal.SQLExceptionTypeDelegate

at

org.hibernate.exception.internal.StandardSQLExceptionCon

at

org.hibernate.engine.jdbc.spi.SqlExceptionHelper.convert(S

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