Hibernate-2

Hibernate Annotation-

Create the Persistence class.

@Entity annotation marks this class as an entity.

@Table annotation specifies the table name where data of this entity is to be persisted. If you don't use @Table annotation, hibernate will use the class name as the table name by default.

@Id annotation marks the identifier for this entity.

@Column annotation specifies the details of the column for this property or field. If @Column annotation is not specified, property name will be used as the column name by default.

Why we need maven

- No need to add jar files manually
- We can directly add the dependency.

Coding....

- Step-1 : Create maven project.
- Step-2 : Add the dependency in pom.xml file
- -hibernate-core
- -mysql-connector-java
- Step-3 : Add the pojo class – Employee class
- Step-4 : Add the hibernate annotations to pojo class
- Step-5 : Add the hibernate.cfg.xml file

- Hbm.xml mapping file
- Hibernate.cfg.xml

DemoHibernate/pom.xml - Eclipse IDE

File Edit Source Navigate Search Project Run Design Window Help

hibernate.cfg.xml | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance'
    <modelVersion>4.0.0</modelVersion>
    <groupId>DemoProject</groupId>
    <artifactId>DemoHibernate</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <dependencies>
        <dependency>
            <groupId>org.hibernate</groupId>
            <artifactId>hibernate-core</artifactId>
            <version>6.1.3.Final</version>
            <type>pom</type>
        </dependency>
        <dependency>
            <groupId>mysql</groupId>
            <artifactId>mysql-connector-java</artifactId>
            <version>8.0.30</version>
        </dependency>
    </dependencies>
</project>
```

Overview | Dependencies | Dependency Hierarchy | Effective POM | pom.xml

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HibernateMavenProject/src/main/java/com/velocity/Employee.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Employee.java | hibernate.cfg.xml | Insert.java | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```java
package com.velocity;

import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
import javax.persistence.Table;

@Entity
@Table (name ="emp")
public class Employee {
    @Id
    @Column(name ="emp_id")
    @GeneratedValue (strategy = GenerationType.AUTO)
    private int id;
    @Column (name = "emp_fullName")
    private String fullName;
    @Column (name = "emp_city")
    private String city;
    @Column (name = "emp_age")
    private int age;
    @Column (name ="emp_salary")
    private long salary;

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

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HibernateMavenProject/src/main/java/com/velocity/Employee.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Employee.java | hibernate.cfg.xml | Insert.java | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```
30          this.id = id;
31      }
32      public String getFullName() {
33          return fullName;
34      }
35      public void setFullName(String fullName) {
36          this.fullName = fullName;
37      }
38      public String getCity() {
39          return city;
40      }
41      public void setCity(String city) {
42          this.city = city;
43      }
44      public int getAge() {
45          return age;
46      }
47      public void setAge(int age) {
48          this.age = age;
49      }
50      public long getSalary() {
51          return salary;
52      }
53      public void setSalary(long salary) {
54          this.salary = salary;
55      }
56      @Override
57      public String toString() {
58          return "Employee [id=" + id + ", fullName=" + fullName + ", city=" + city + ", age=" + age + ", salary="
59                  + salary + "]";
60      }
```

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HibernateMavenProject/src/main/java/hibernate.cfg.xml - Eclipse IDE

File Edit Source Source Navigate Search Project Run Window Help

hibernate.cfg.xml | Insert.java | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <!DOCTYPE hibernate-configuration SYSTEM
3       "http://hibernate.sourceforge.net/hibernate-configuration-3.0.dtd">
4  <hibernate-configuration>
5  <session-factory>
6  <property name="hibernate.connection.driver_class">com.mysql.cj.jdbc.Driver</property>
7  <property name="hibernate.connection.url">jdbc:mysql://localhost:3306/test</property>
8  <property name="hibernate.connection.username">root</property>
9  <property name="hibernate.connection.password">root</property>
10 <property name="hibernate.dialect">org.hibernate.dialect.MySQL8Dialect</property>
11 <property name="hbm2ddl.auto">update</property>
12 <property name="show_sql">true</property>
13 <mapping class="com.velocity.Employee"/>
14 </session-factory>
15 </hibernate-configuration>
```

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ernate-configuration/session-factory/property/#text | Writable | Smart Insert | 11 : 37 [6]

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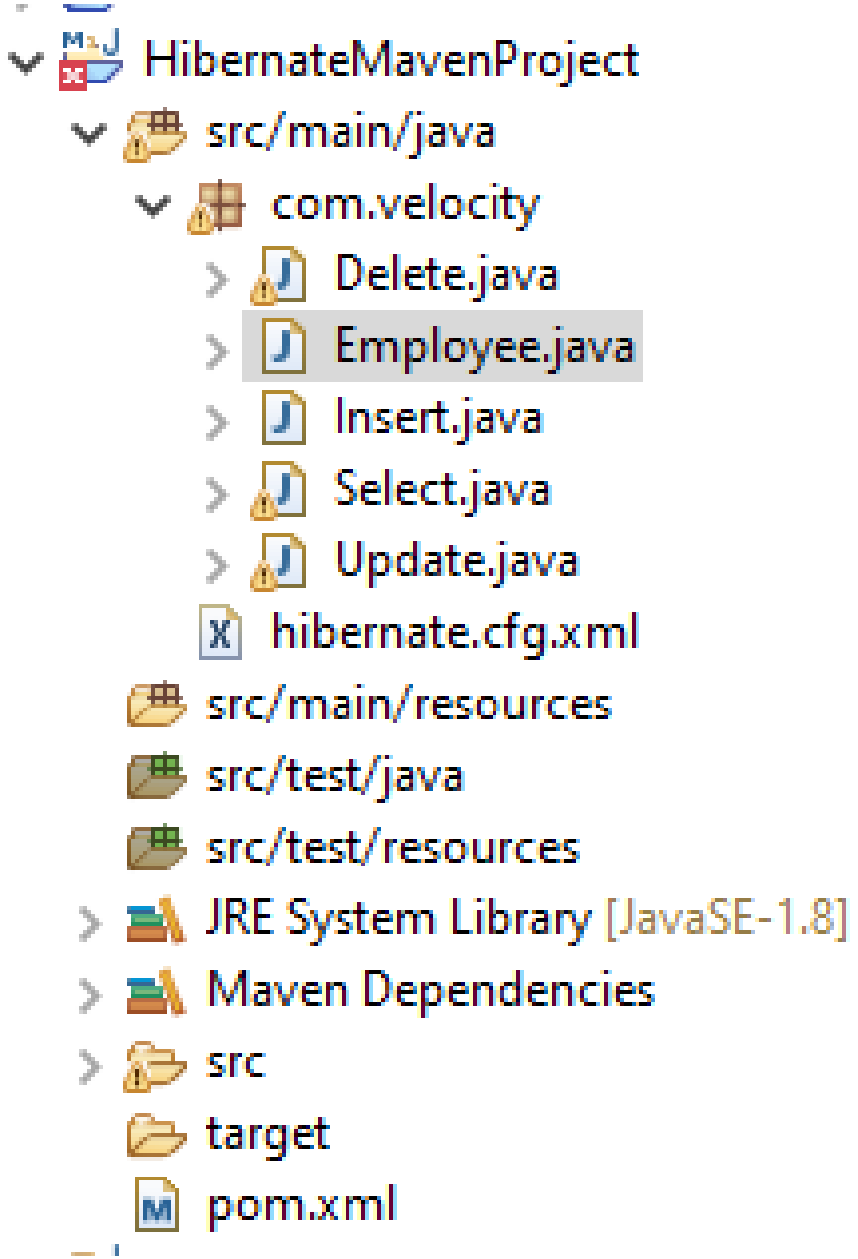
HibernateMavenProject
src/main/java
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src/test/resources
JRE System Library [JavaSE-1.8]
Maven Dependencies
src
target
pom.xml

HibernateMavenProject/src/main/java/com/velocity/Insert.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

hibernate.cfg.xml | Insert.java | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```java
package com.velocity;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;
import org.hibernate.cfg.Configuration;

public class Insert {

    public static void main(String[] args) {
        Configuration cfg = new Configuration();
        cfg.configure("hibernate.cfg.xml");
        SessionFactory sessionFactory = cfg.buildSessionFactory();
        Session session = sessionFactory.openSession();
        Transaction transaction = session.beginTransaction();

        //Insert the data
        Employee emp1 = new Employee();
        emp1.setFullName("Pawan patil");
        emp1.setAge(30);
        emp1.setCity("pune");
        emp1.setSalary(50000);

        Employee emp2 = new Employee();
        emp2.setFullName("Raju patil");
        emp2.setAge(29);
        emp2.setCity("Mumbai");
```

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HibernateMavenProject/src/main/java/com/velocity/Insert.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

hibernate.cfg.xml | Insert.java | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```
12          cfg.configure("hibernate.cfg.xml");
13          SessionFactory sessionFactory = cfg.buildSessionFactory();
14          Session session = sessionFactory.openSession();
15          Transaction transaction = session.beginTransaction();
16
17          //Insert the data
18          Employee emp1 = new Employee();
19          emp1.setFullName("Pawan patil");
20          emp1.setAge(30);
21          emp1.setCity("pune");
22          emp1.setSalary(50000);
23
24          Employee emp2 = new Employee();
25          emp2.setFullName("Raju patil");
26          emp2.setAge(29);
27          emp2.setCity("Mumbai");
28          emp2.setSalary(40000);
29
30          session.save(emp1);
31          session.save(emp2);
32          transaction.commit();
33          session.close();
34          System.out.println("All records added...");
35      }
36
37  }
38
```

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HibernateMavenProject/src/main/java/com/velocity/Update.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

hibernate.cfg.xml | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```java
package com.velocity;

import org.hibernate.Session;

public class Update {

    public static void main(String[] args) {
        Configuration cfg = new Configuration();
        cfg.configure("hibernate.cfg.xml");
        SessionFactory sessionFactory = cfg.buildSessionFactory();
        Session session = sessionFactory.openSession();
        Transaction transaction = session.beginTransaction();

        //update the data
        Employee employee = session.get(Employee.class, 2);
        employee.setFullName("Arun Patil");
        session.update(employee);
        session.getTransaction().commit();
        session.close();
        System.out.println("All records updated...");
    }

}
```

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HibernateMavenProject/src/main/java/com/velocity/Delete.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

hibernate.cfg.xml | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```java
package com.velocity;

import org.hibernate.Session;

public class Delete {

    public static void main(String[] args) {
        Configuration cfg = new Configuration();
        cfg.configure("hibernate.cfg.xml");
        SessionFactory sessionFactory = cfg.buildSessionFactory();
        Session session = sessionFactory.openSession();
        Transaction transaction = session.beginTransaction();

        //Delete the data
        //Employee employee = session.get(Employee.class, 2);
        Employee employee = session.load(Employee.class, 2);
        session.delete(employee);
        session.getTransaction().commit();
        session.close();
        System.out.println("record deleted...");
    }

}
```

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HibernateMavenProject/src/main/java/com/velocity/Select.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

hibernate.cfg.xml | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```java
package com.velocity;

import java.util.List;

public class Select {

    public static void main(String[] args) {
        Configuration cfg = new Configuration();
        cfg.configure("hibernate.cfg.xml");
        SessionFactory sessionFactory = cfg.buildSessionFactory();
        Session session = sessionFactory.openSession();
        session.beginTransaction();

        //Select the data
        Query query = session.createQuery("from Employee");
        List<Employee> empList = query.list();
        //empList.stream().forEach(x->System.out.println(x));
        for(Employee e : empList) {
            System.out.println("Id >"+e.getId());
            System.out.println("FullName >"+e.getFullName());
            System.out.println("Age >"+e.getAge());
            System.out.println("City >"+e.getCity());
            System.out.println("Salary"+e.getSalary());
        }
        session.getTransaction().commit();
        session.close();

        System.out.println("record ...");
    }

}
```

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HibernateMavenProject/src/main/java/com/velocity/Select.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- arrays
- bank
- CollectionFramework
- constructorchaining
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Context menu:

- Show In Alt+Shift+W >
- Copy Ctrl+C
- Copy Qualified Name
- Paste Ctrl+V
- Delete Delete
- Build Path >
- Import...
- Export...
- Refresh F5
- Properties Alt+Enter

hibernate.cfg.xml | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```
1  package com.velocity;
2
3  import java.util.List;
10
11 public class Select {
12
13     public static void main(String[] args) {
14         Configuration cfg = new Configuration();
15         cfg.configure("hibernate.cfg.xml");
16         SessionFactory sessionFactory = cfg.buildSessionFactory();
           Session session = sessionFactory.openSession();
           session.beginTransaction();

           //Select the data
           Query query = session.createQuery("from Employee");
           List<Employee> empList = query.list();
           //empList.stream().forEach(x->System.out.println(x));
           for(Employee e : empList) {
               System.out.println("Id >"+e.getId());
               System.out.println("FullName >"+e.getFullName());
               System.out.println("Age >"+e.getAge());
               System.out.println("City >"+e.getCity());
               System.out.println("Salary"+e.getSalary());
           }
31         session.getTransaction().commit();
```

Problems | Javadoc | Console

<terminated> Select [Java Application] C:\Program Files\Java\jdk1.8.0_331\bin\javaw.exe (27-Sep-2022, 9:34:34 pm – 9:34:39 pm) [pid: 21364]

```
INFO: HHH10001501: Connection obtained from JdbcConnectionAccess [org.hibernate.engine.jdbc.env.internal.JdbcEnvir
Sep 27, 2022 9:34:38 PM org.hibernate.engine.transaction.jta.platform.internal.JtaPlatformInitiator initiateServic
INFO: HHH000490: Using JtaPlatform implementation: [org.hibernate.engine.transaction.jta.platform.internal.NoJtaP]
```

JRE System Library [J2SE-1.5] - DemoHibernate

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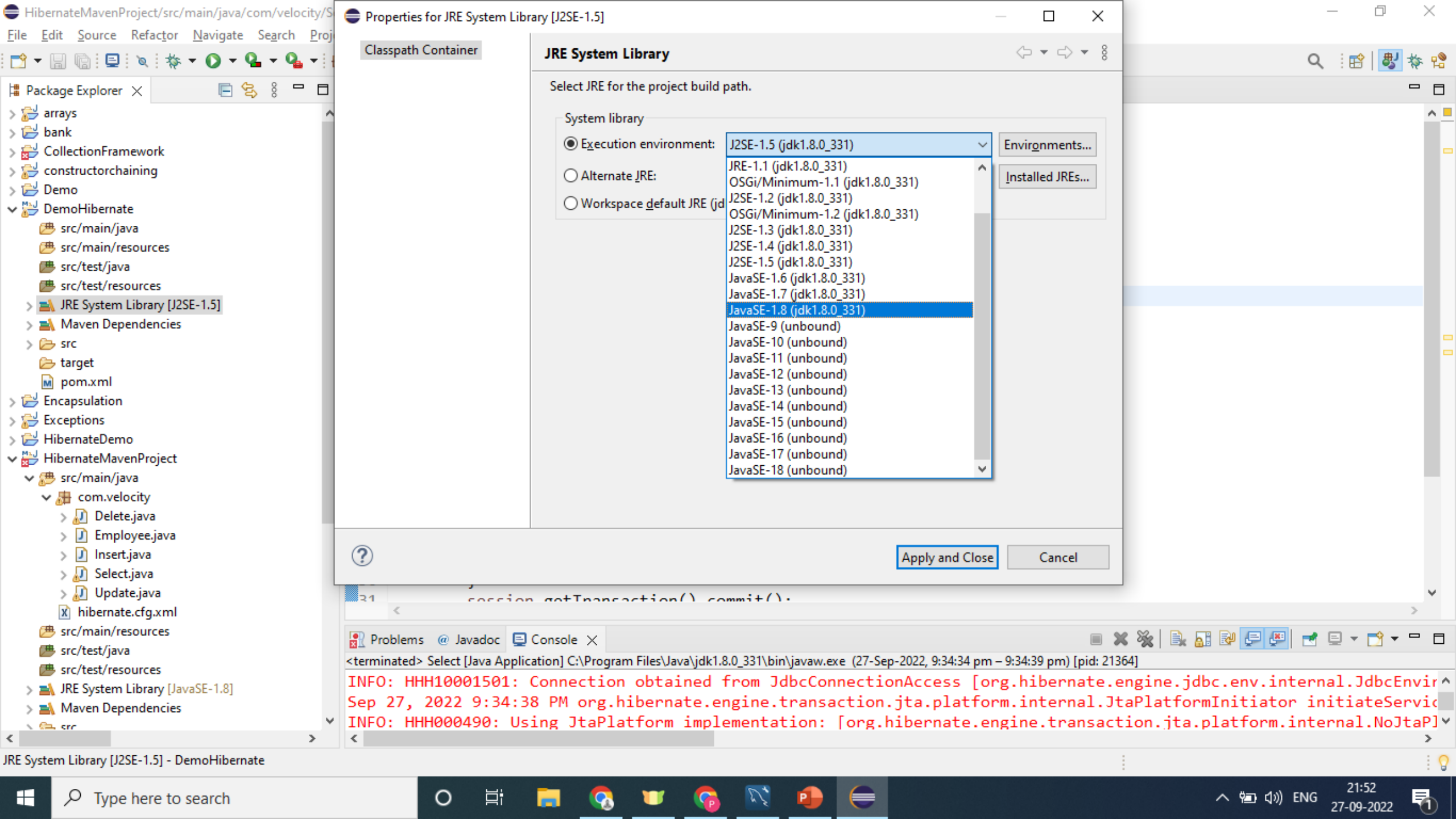
Properties for JRE System Library [J2SE-1.5]
Classpath Container
JRE System Library
Select JRE for the project build path.
System library
Execution environment:
J2SE-1.5 (jdk1.8.0_331)
Environments...
Alternate JRE:
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J2SE-1.2 (jdk1.8.0_331)
OSGi/Minimum-1.2 (jdk1.8.0_331)
J2SE-1.3 (jdk1.8.0_331)
J2SE-1.4 (jdk1.8.0_331)
J2SE-1.5 (jdk1.8.0_331)
JavaSE-1.6 (jdk1.8.0_331)
JavaSE-1.7 (jdk1.8.0_331)
JavaSE-1.8 (jdk1.8.0_331)
JavaSE-9 (unbound)
JavaSE-10 (unbound)
JavaSE-11 (unbound)
JavaSE-12 (unbound)
JavaSE-13 (unbound)
JavaSE-14 (unbound)
JavaSE-15 (unbound)
JavaSE-16 (unbound)
JavaSE-17 (unbound)
JavaSE-18 (unbound)
Apply and Close
Cancel
HibernateMavenProject/src/main/java/com/velocity/S
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src/test/resources
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Maven Dependencies
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Javadoc
Console
<terminated> Select [Java Application] C:\Program Files\Java\jdk1.8.0_331\bin\javaw.exe (27-Sep-2022, 9:34:34 pm – 9:34:39 pm) [pid: 21364]
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Sep 27, 2022 9:34:38 PM org.hibernate.engine.transaction.jta.platform.internal.JtaPlatformInitiator initiateServic
INFO: HHH000490: Using JtaPlatform implementation: [org.hibernate.engine.transaction.jta.platform.internal.NoJtaP]
JRE System Library [J2SE-1.5] - DemoHibernate
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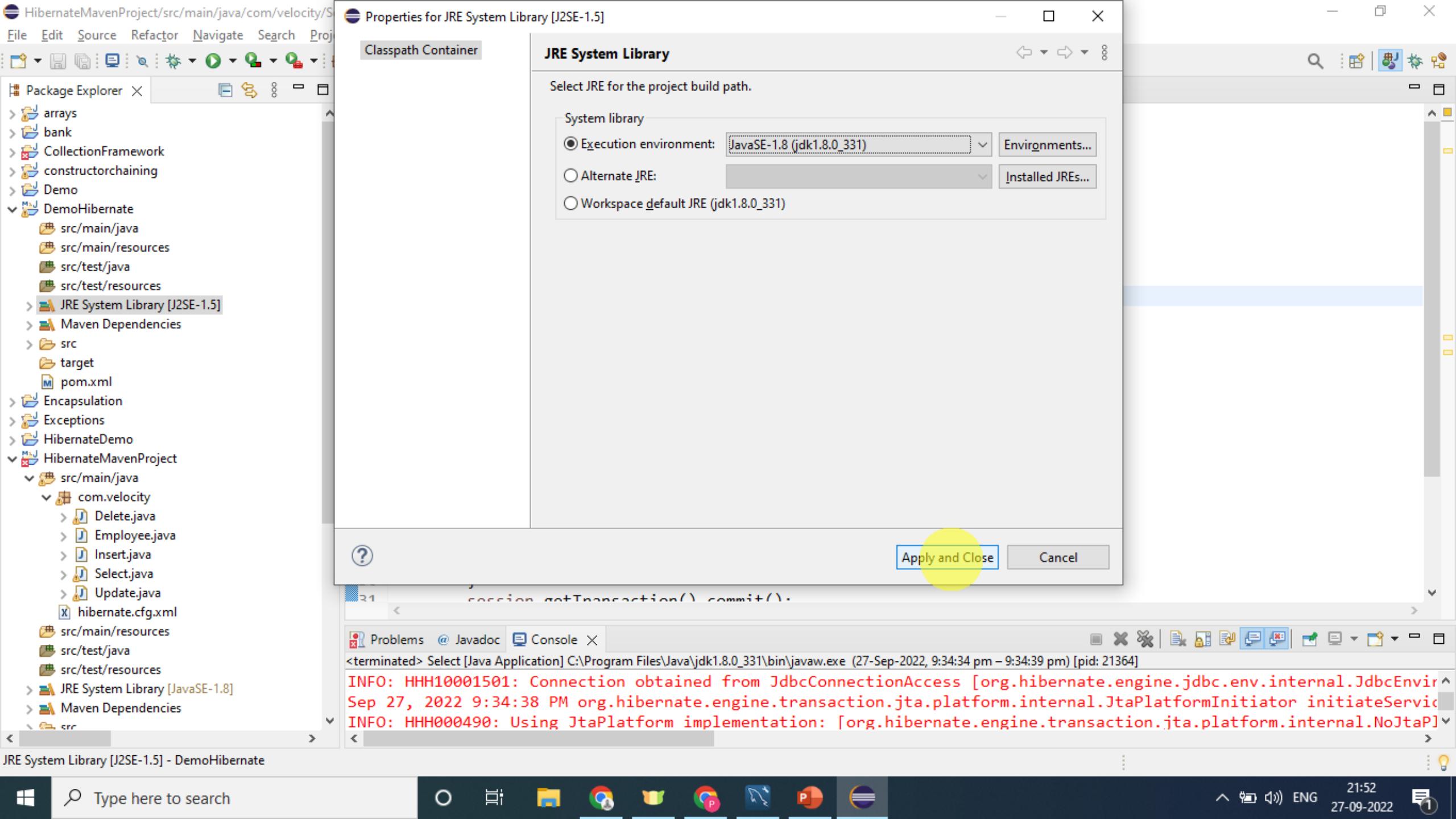
Properties for JRE System Library [J2SE-1.5]
Classpath Container
JRE System Library
Select JRE for the project build path.
System library
Execution environment:
JavaSE-1.8 (jdk1.8.0_331)
Environments...
Alternate JRE:
Installed JREs...
Workspace default JRE (jdk1.8.0_331)
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JRE System Library [J2SE-1.5] - DemoHibernate
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HibernateMavenProject/src/main/java/com/velocity/Select.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

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  - src/test/resources
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  - Maven Dependencies
  - src

hibernate.cfg.xml | Update.java | Delete.java | Select.java | DemoHibernate/pom.xml

```
1  package com.velocity;
2
3  import java.util.List;
10
11 public class Select {
12
13     public static void main(String[] args) {
14         Configuration cfg = new Configuration();
15         cfg.configure("hibernate.cfg.xml");
16         SessionFactory sessionFactory = cfg.buildSessionFactory();
17         Session session = sessionFactory.openSession();
18         session.beginTransaction();
19
20         //Select the data
21         Query query = session.createQuery("from Employee");
22         List<Employee> empList = query.list();
23         //empList.stream().forEach(x->System.out.println(x));
24         for(Employee e : empList) {
25             System.out.println("Id >"+e.getId());
26             System.out.println("FullName >"+e.getFullName());
27             System.out.println("Age >"+e.getAge());
28             System.out.println("City >"+e.getCity());
29             System.out.println("Salary"+e.getSalary());
30         }
31         session.getTransaction().commit();
```

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