

Dear Students,

Although I would recommend you to use [Hibernate 4.3.5.Final](#) version for the duration of the course, as that was the version used by me while designing the course and the jar files for which could also be download from [Lecture 10](#), you might still want to use the [Hibernate 5.x.y/latest](#) version and you're welcome to do that, but you're going to have to make the following two changes to the [downloaded source code](#) (each lab exercise comes with downloadable source code) to get your code working properly, otherwise you might get the strange `org.hibernate.MappingException: Unknown entity: entity.Message`:

1. Use the `GenerationType.IDENTITY`¹ strategy in your entities for auto id generation. As shown in the following `Message` entity, for example:

```
package entity;
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="message")
public class Message {
    @Id
    @GeneratedValue(strategy=GenerationType.IDENTITY)
    @Column(name="ID")
    private Long id;
    @Column(name="TEXT")
    private String text;
    public Message() {}
    public Message(String text) {
        this.text = text;
    }
    @Override
    public String toString() {
        return "Message [id=" + id + ", text=" + text + "];"
    }
}
```

2. Build **StandardServiceRegistry** and **Metadata** to build the **SessionFactory** from them in **HibernateUtil** class, as shown below:

```
package util;
import org.hibernate.SessionFactory;
import org.hibernate.boot.Metadata;
import org.hibernate.boot.MetadataSources;
import org.hibernate.boot.registry.StandardServiceRegistry;
import org.hibernate.boot.registry.StandardServiceRegistryBuilder;

public class HibernateUtil {
    private static final SessionFactory sessionFactory = buildSessionFactory();

    private static SessionFactory buildSessionFactory() {
        try {
            // Create the SessionFactory from hibernate.cfg.xml
            StandardServiceRegistry serviceRegistry = new StandardServiceRegistryBuilder().configure("hibernate.cfg.xml").build();
            Metadata metadata = new MetadataSources(serviceRegistry).getMetadataBuilder().build();
            return metadata.getSessionFactoryBuilder().build();
        }
        catch (Throwable ex) {
            // Make sure you log the exception, as it might be swallowed
            System.err.println("Initial SessionFactory creation failed." + ex);
            throw new ExceptionInInitializerError(ex);
        }
    }
    public static SessionFactory getSessionFactory() {
        return sessionFactory;
    }
}
```

So if you're going to use **Hibernate 4.3.5.Final** version, you **don't** have to make the above (1st and 2nd) changes to the downloaded source code.

Once you complete the course, you could always test your code using **Hibernate 5.x.y/latest** version and get back to me in case you happen to face any issues².

Best,
Deshraj

¹**GenerationType.IDENTITY** was discussed at <https://www.udemy.com/course/242180/activities/?ids=2594248> in the course

²**Hibernate 5.0.4** version has moved the **geronimo-jta_1.1.1_spec-1.1.1.jar** from **lib -> required** folder to **lib -> osgi** folder, so do not forget to have it in the class-path of your **application**