

## Container-Managed Persistence Entity Beans

Tạo Database có tên BMP21. Tạo bảng Sinhvien có cấu trúc như hình

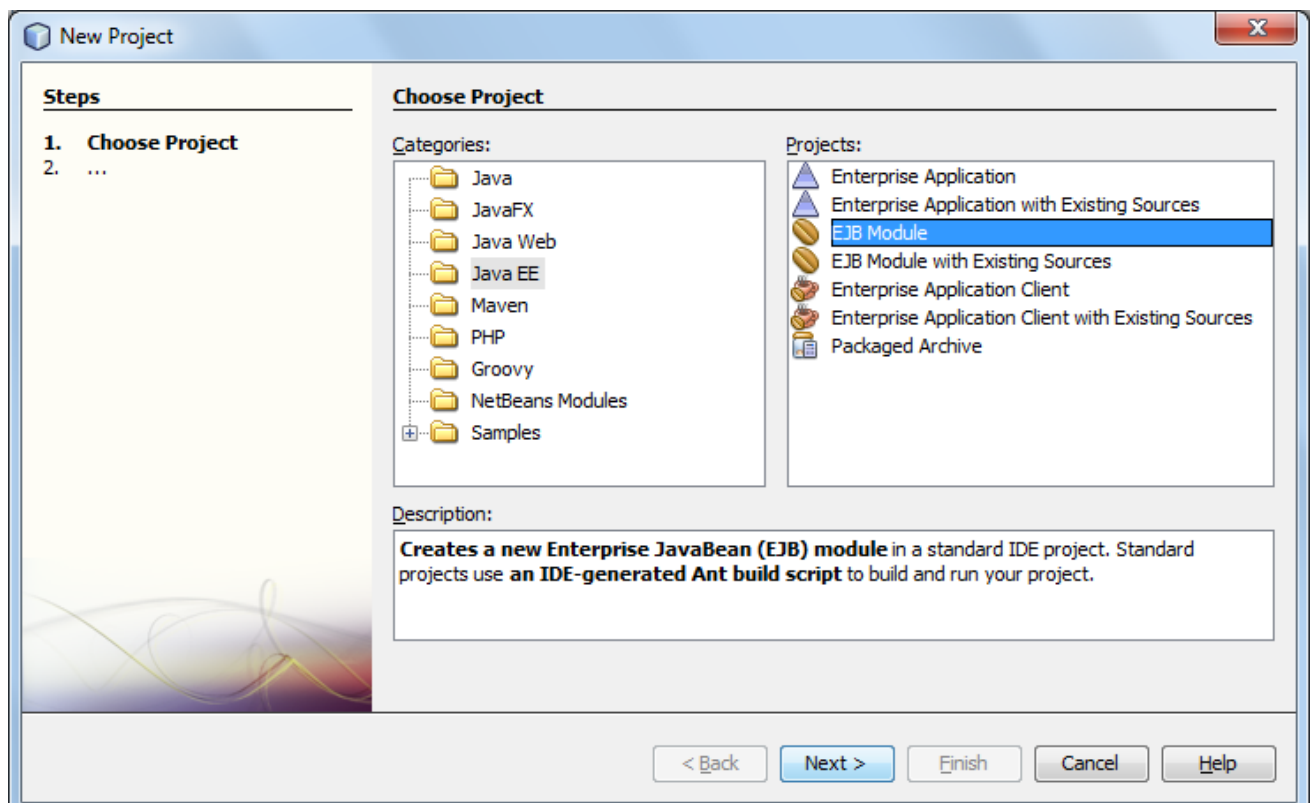
Table - dbo.Sinhvien			
	Column Name	Data Type	Allow Nulls
	mssv	varchar(20)	<input type="checkbox"/>
	hoten	varchar(50)	<input type="checkbox"/>
	diachi	varchar(50)	<input type="checkbox"/>
	lophoc	varchar(20)	<input type="checkbox"/>

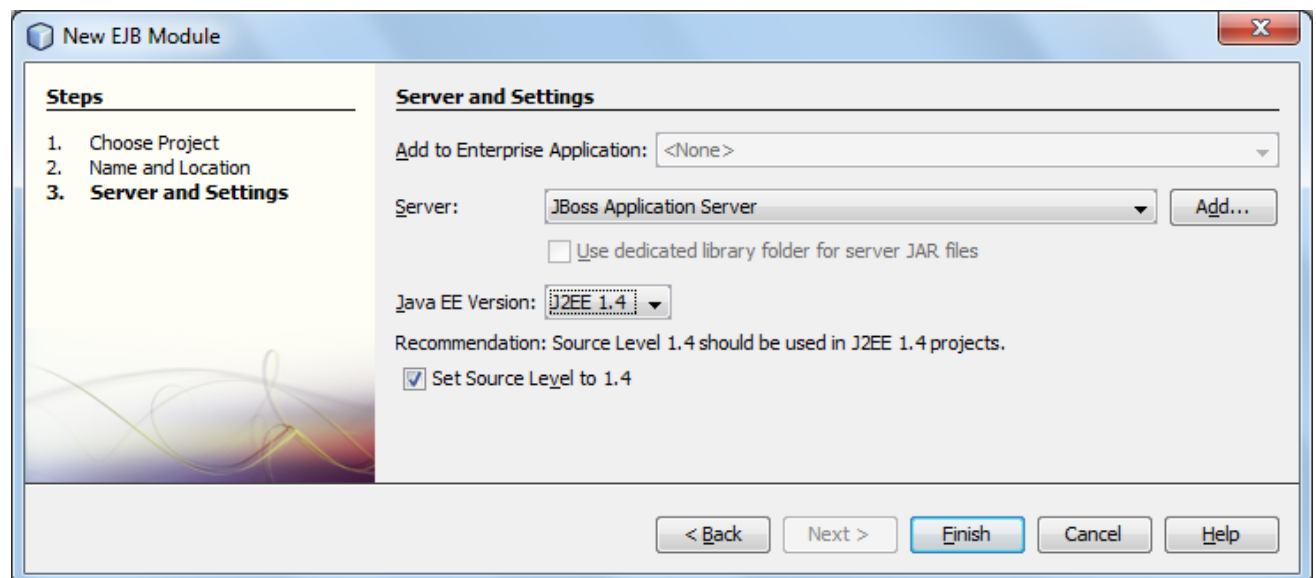
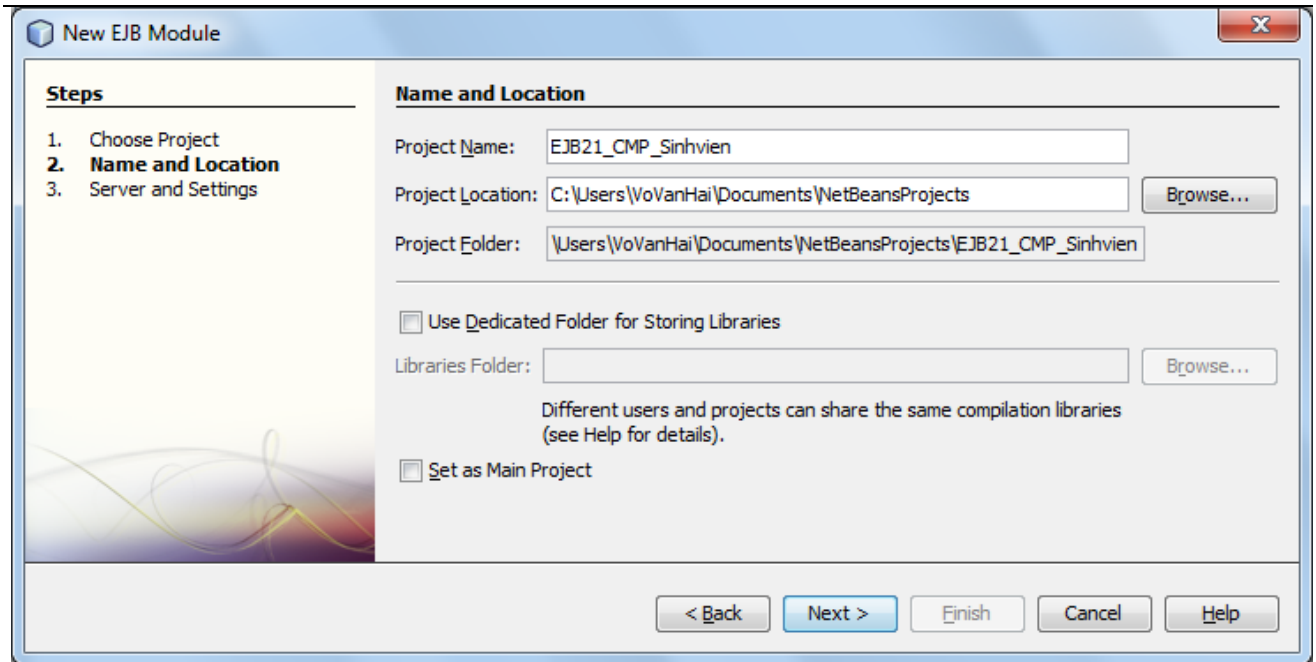
Dữ liệu thử

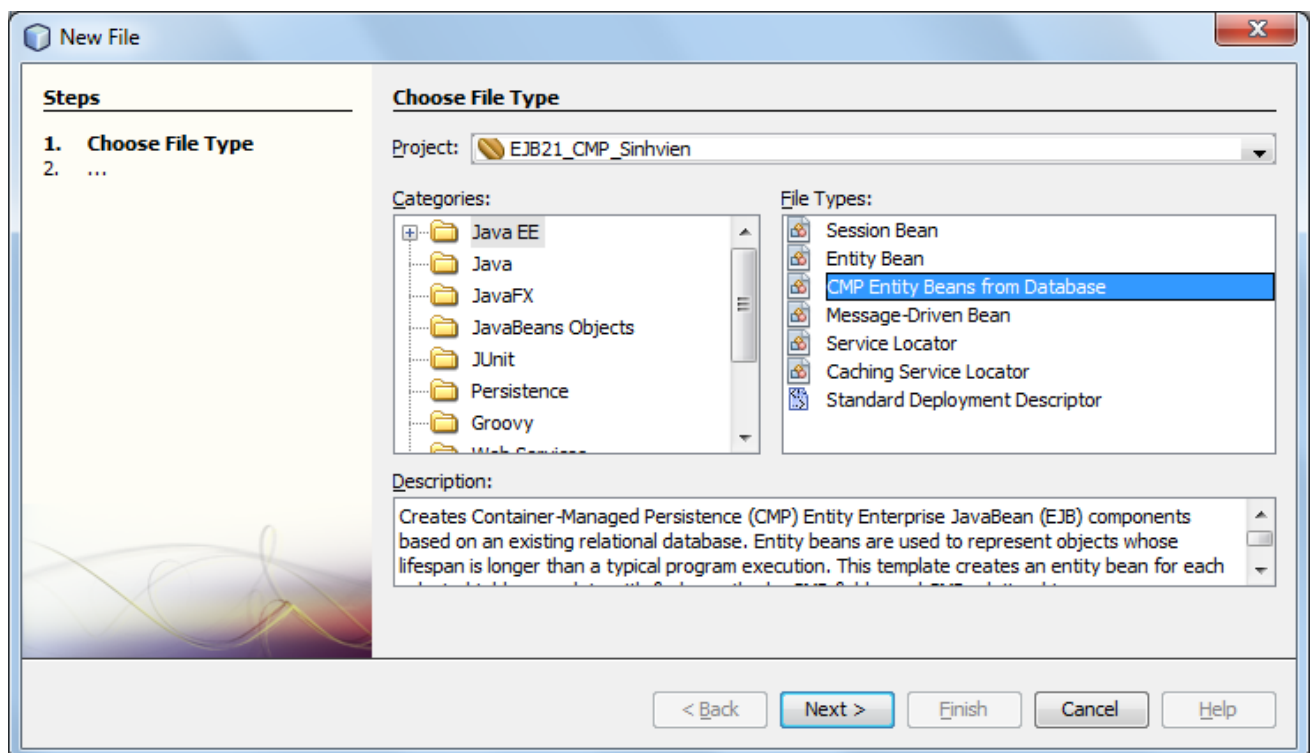
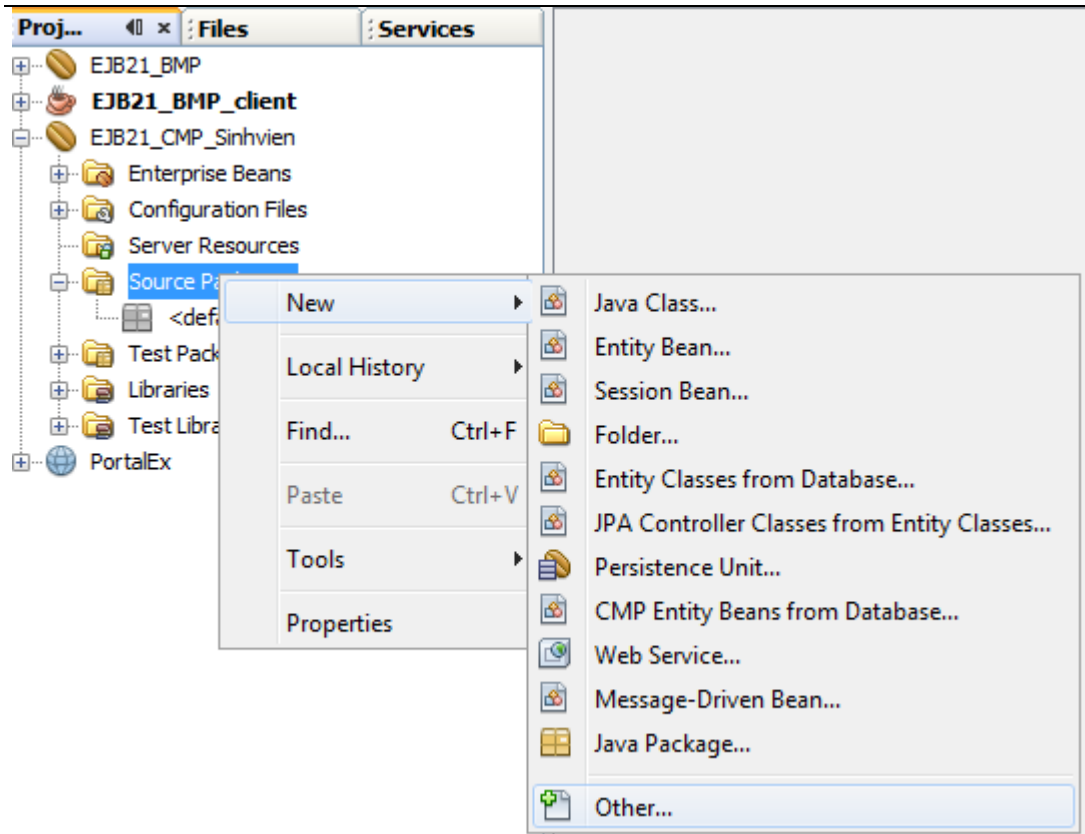
Table - dbo.Sinhvien				
	mssv	hoten	diachi	lophoc
	sv01	tèo	12 Nguyen Van ...	1A
	sv02	Ty	7 NQC	1B
	sv03	Met	6 DBL	1A
	sv04	Men	5 DTH	1A

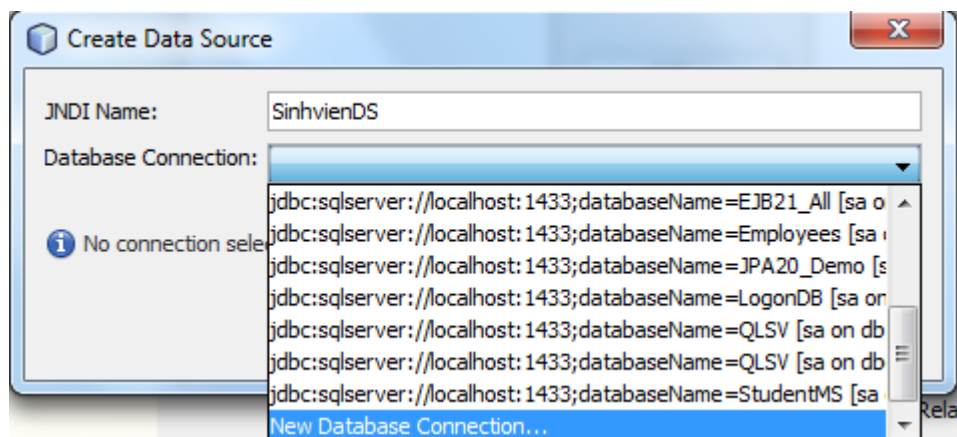
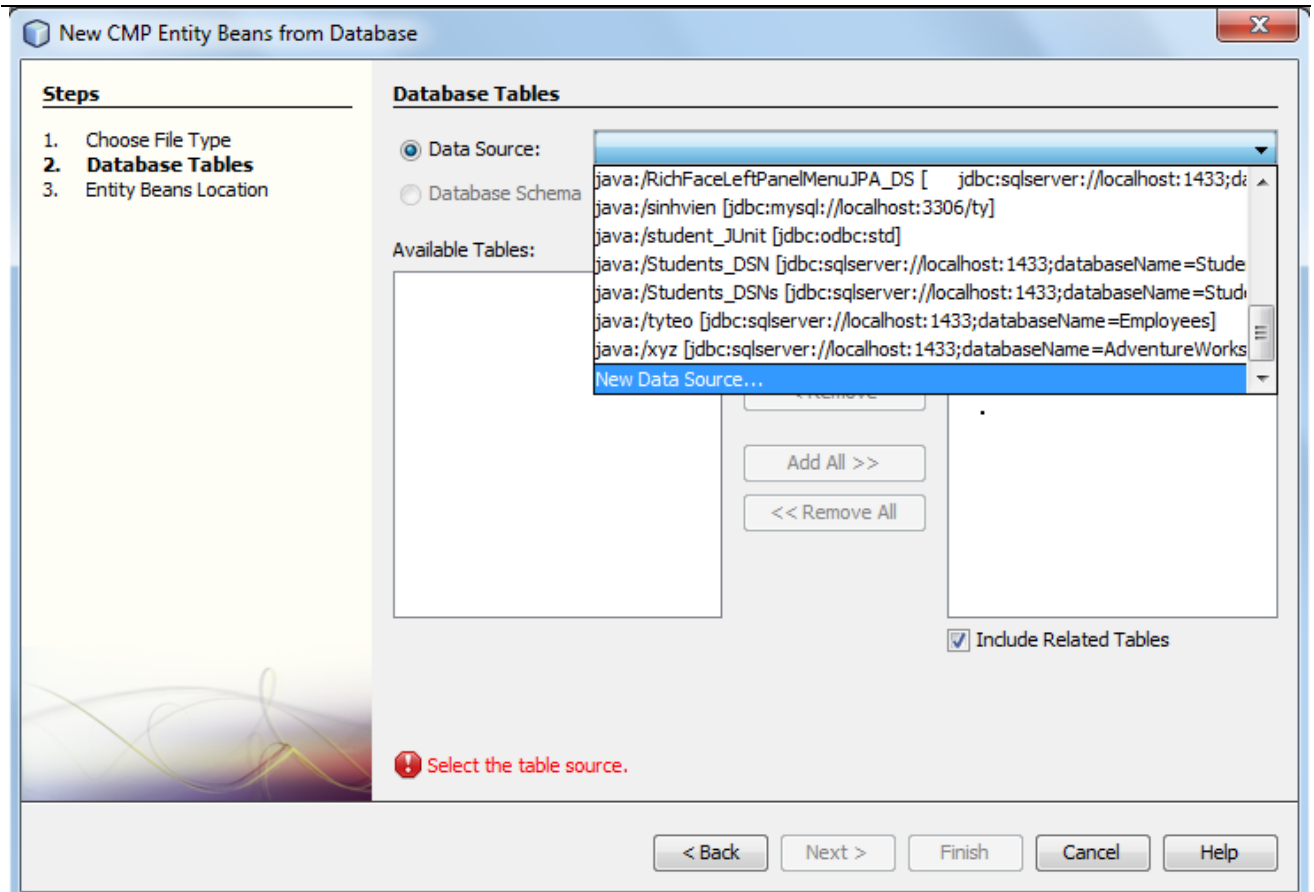
### Phần 1: EJB

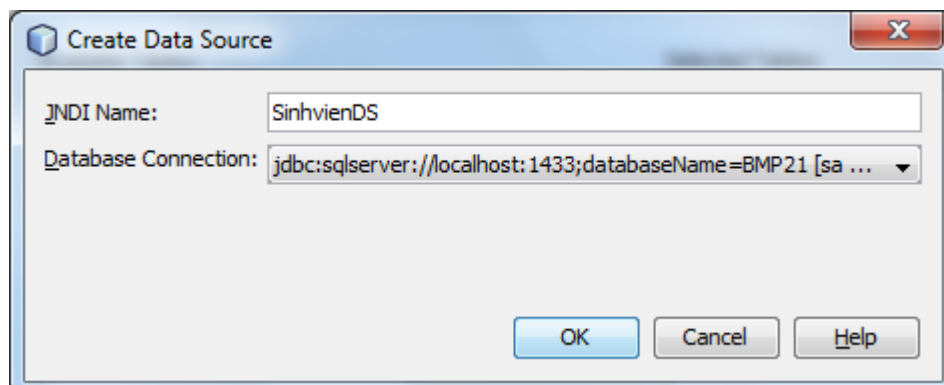
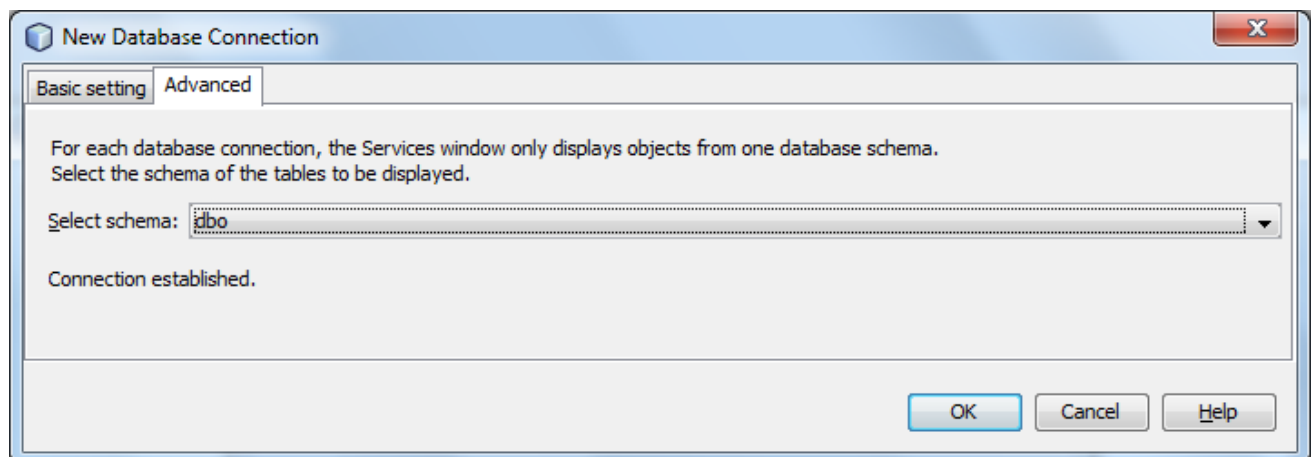
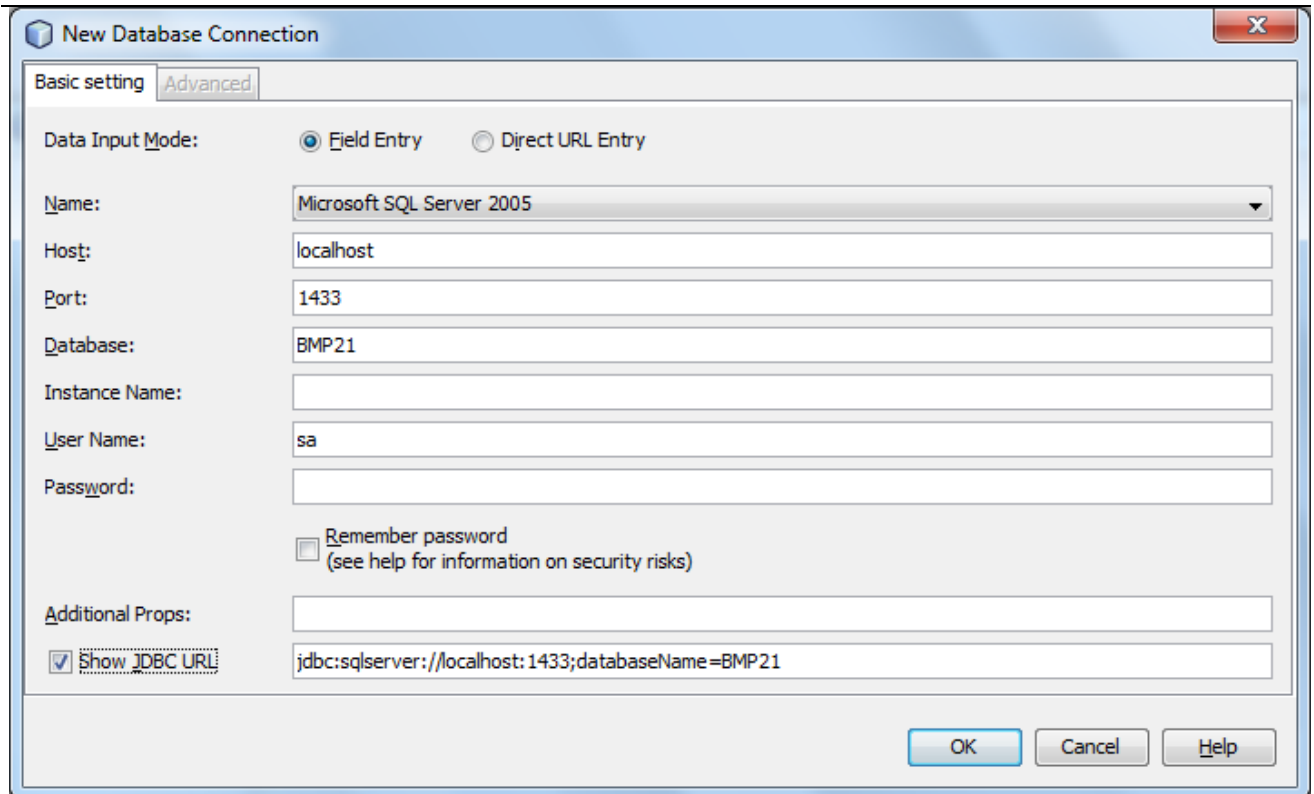
Tạo project trong Netbeans

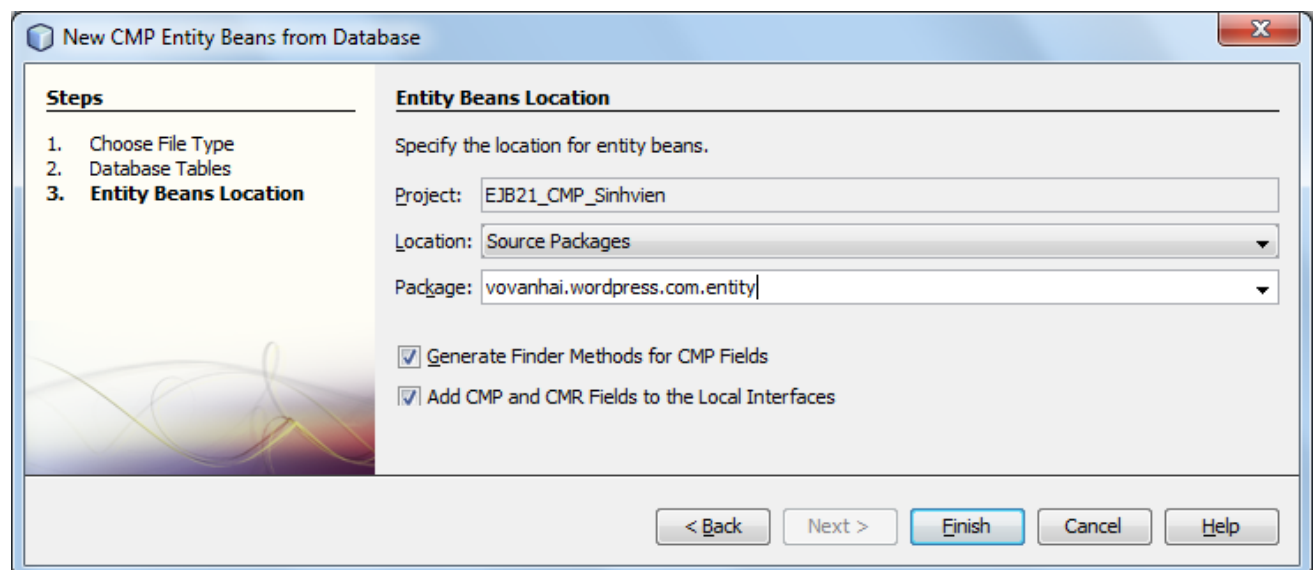
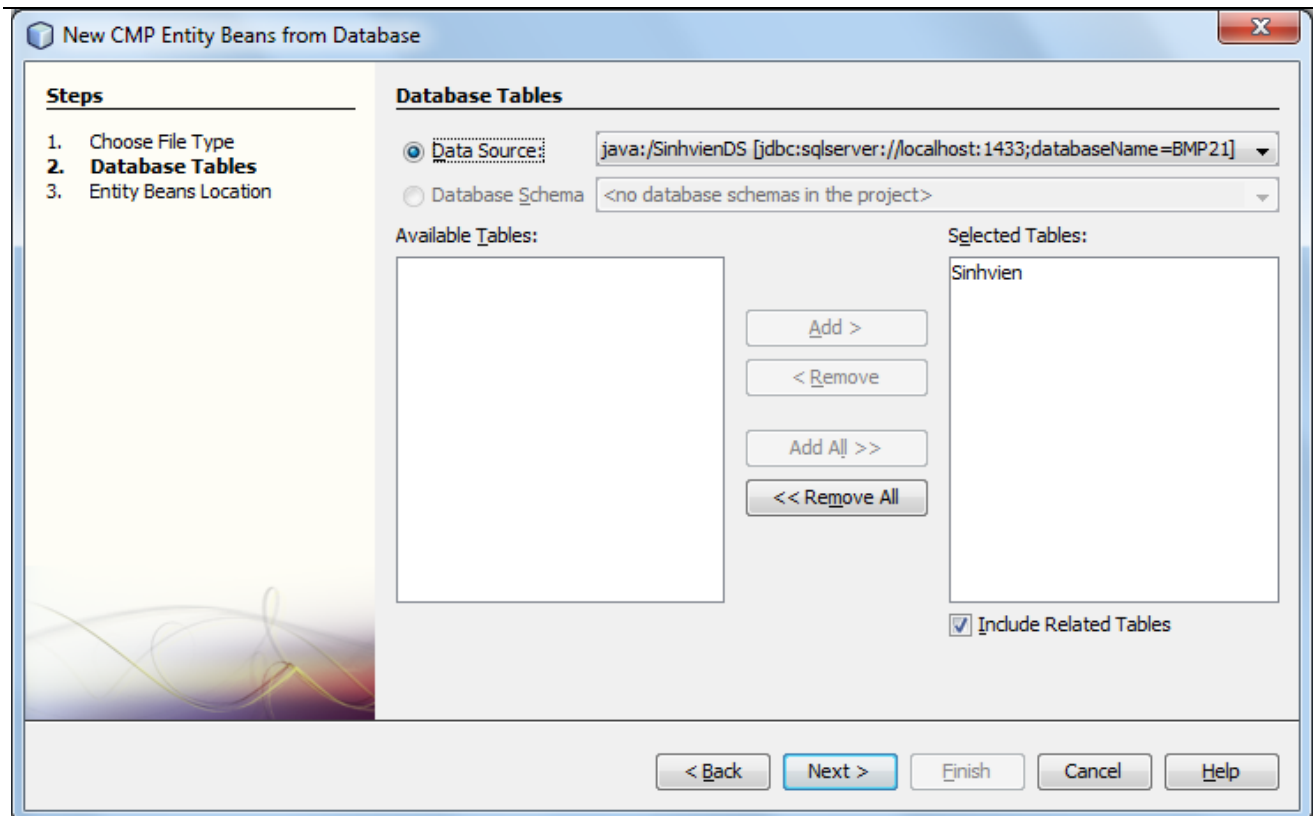




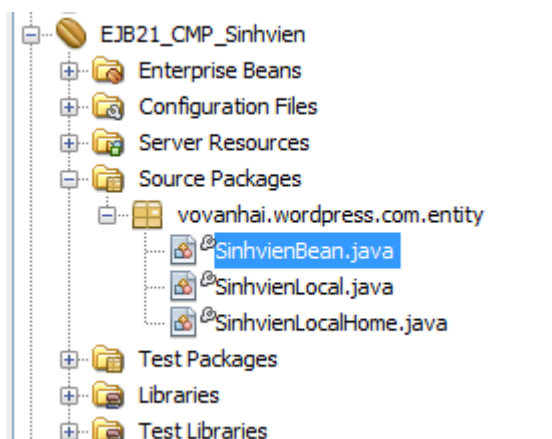








Kết quả:



Chú ý ở đây Netbean tạo ra LocalHome và Local. Điều này không cho phép ejb được truy xuất từ bên ngoài. Lúc này ta có thể có 2 cách:

1. Chuyển Local thành Remote để có thể truy xuất từ bên ngoài.
2. Thêm 1 SessionBean làm façade cho client truy xuất.

Ở đây ta thử dùng cách thứ nhất.

Ta cần thay đổi **SinhvienLocal.java** thành **Sinhvien.java**. Code như sau:

```
package vovanhai.wordpress.com.entity;

import java.rmi.RemoteException;
import javax.ejb.EJBObject;

/**
 *
 * @author VoVanHai
 */
public interface Sinhvien extends EJBObject {

    String getMssv() throws RemoteException;

    void setMssv(String mssv) throws RemoteException;

    String getHoten() throws RemoteException;

    void setHoten(String hoten) throws RemoteException;

    String getDiachi() throws RemoteException;

    void setDiachi(String diachi) throws RemoteException;

    String getLophoc() throws RemoteException;

    void setLophoc(String lophoc) throws RemoteException;
}
```

Đổi **SinhvienLocalHome.java** thành **SinhvienHome.java**. Code như sau:

```

package vovanhai.wordpress.com.entity;

import java.rmi.RemoteException;
import java.util.Collection;
import javax.ejb.CreateException;
import javax.ejb.EJBHome;
import javax.ejb.FinderException;
/**
 *
 * @author VoVanHai
 */
public interface SinhvienHome extends EJBHome {

    Sinhvien findByPrimaryKey(java.lang.String key)
        throws FinderException, RemoteException;

    Sinhvien create(String mssv, String hoten, String diachi, String lophoc)
        throws CreateException, RemoteException;

    Collection findByMssv(String mssv) throws FinderException, RemoteException;

    Collection findByHoten(String hoten) throws FinderException, RemoteException;

    Collection findByDiachi(String diachi) throws FinderException, RemoteException;

    Collection findByLophoc(String lophoc) throws FinderException, RemoteException;
}

```

Modify code cho lớp **SinhvienBean.java**

```

public String ejbCreate(String mssv, String hoten, String diachi,
    String lophoc) throws CreateException {
    if (mssv == null) {
        throw new CreateException("The field \"key\" must not be null");
    }
    setMssv(mssv);
    setHoten(hoten);
    setDiachi(diachi);
    setLophoc(lophoc);
    return mssv;
}

public void ejbPostCreate(String mssv, String hoten, String diachi,
    String lophoc) {
}

```

Sửa file ejb-jar.xml ở phần sau(các phần khác giữ nguyên)



```

<ejb-name>SinhvienBean</ejb-name>
<home>vovanhai.wordpress.com.entity.SinhvienHome</home>
<remote>vovanhai.wordpress.com.entity.Sinhvien</remote>
<ejb-class>vovanhai.wordpress.com.entity.SinhvienBean</ejb-class>
<persistence-type>Container</persistence-type>
<prim-key-class>java.lang.String</prim-key-class>

```

Tạo file jbosscmp-jdbc.xml. File này cần phải có trong quá trình kết nối với CSDL. Nếu không có file này, bean vẫn được triển khai và vẫn chạy nhưng nó sẽ làm việc mặc định với DefaultDS của CSDL mặc định chứ không phải trên CSDL mà bạn tạo.

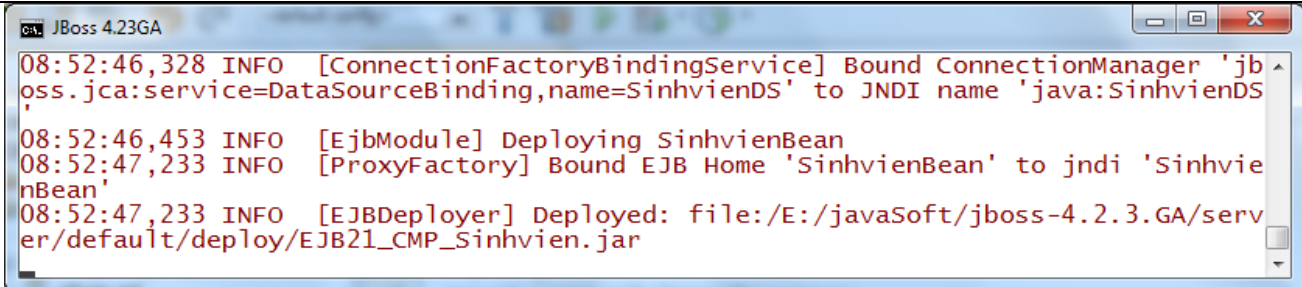
```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE jbosscmp-jdbc PUBLIC "-//JBoss//DTD JBOSSCMP-JDBC 4.0//EN"
"http://www.jboss.org/j2ee/dtd/jbosscmp-jdbc_4_0.dtd">

<jbosscmp-jdbc>
  <defaults>
    <datasource>java:/SinhvienDS</datasource>
    <datasource-mapping>MS SQLSERVER</datasource-mapping>
    <create-table>false</create-table>
    <remove-table>false</remove-table>
  </defaults>
  <enterprise-beans>
    <entity>
      <ejb-name>SinhvienBean</ejb-name>
      <datasource>java:/SinhvienDS</datasource>
      <datasource-mapping>MS SQLSERVER</datasource-mapping>
      <create-table>false</create-table>
      <table-name>Sinhvien</table-name>
      <cmp-field>
        <field-name>mssv</field-name>
        <column-name>mssv</column-name>
      </cmp-field>
      <cmp-field>
        <field-name>hoten</field-name>
        <column-name>hoten</column-name>
      </cmp-field>
      <cmp-field>
        <field-name>diachi</field-name>
        <column-name>diachi</column-name>
      </cmp-field>
      <cmp-field>
        <field-name>lophoc</field-name>
        <column-name>lophoc</column-name>
      </cmp-field>
    </entity>
  </enterprise-beans>
</jbosscmp-jdbc>

```

Triển khai



```
JBoss 4.2.3GA
08:52:46,328 INFO  [ConnectionFactoryBindingService] Bound ConnectionManager 'jboss.jca:service=DataSourceBinding,name=SinhvienDS' to JNDI name 'java:SinhvienDS'
08:52:46,453 INFO  [EjbModule] Deploying SinhvienBean
08:52:47,233 INFO  [ProxyFactory] Bound EJB Home 'SinhvienBean' to jndi 'SinhvienBean'
08:52:47,233 INFO  [EJBDeployer] Deployed: file:/E:/javaSoft/jboss-4.2.3.GA/server/default/deploy/EJB21_CMP_Sinhvien.jar
```

Phần client

Sinhvien tự tạo