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Nhibernate Configuration

A Presentation

by

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Purpose of This Article ?

This tutorial will explain you how to get NHibernate Installed and Configured using Microsoft Visual Web Developer Express 2008 and SQL Server Express 2005. This is for NHibernate (2.2). It is the most simplified straight forward tutorial to configure NHibernate, then please follow ALL of these steps.

Please keep following issues in mind.

1) This tutorial is for all novice .NET developer who are using Nhibernate.

2) Don't try to modify any code snippet (explained in later sections) until you feel confident about understanding of Visual Web Developer 2008 Express Edition, NHibernate,SQL Server Express 2005 combination.

3) Maintain all the versions of the required softwares properly as mentioned.

4) Please maintain code files arrangement as it is shown here in later section.

5) All these codes are working in my machine properly, but if for some reason it doesn't work in your machine then me or my organisation can not do anything without saying sorry to you.

Software and Patches Required :-

1) Visual Studio 2008 Express Edition

2) SQL Server 2005 Express Edition

3) SQL Server Management Studio Express.

4) Nhibernate

NOTE : We are not mentioning your system specification here. Please make sure that all the above mentioned software and patches are supported by your system.

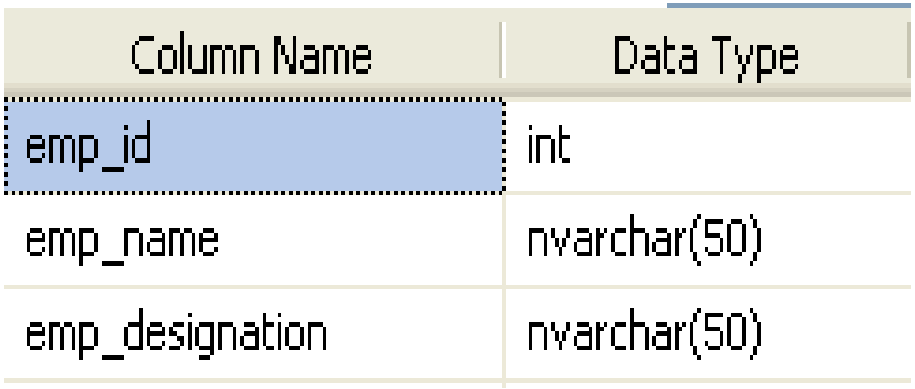
Step -1: Download and Install NHibernate

- Download and Install NHibernate and NHibernate Extensions from www.sourceforge.net/nibernate
- Create a new Web Site called “NHibernateMVC “
- Add Nhibernate.dll as a reference in your website.
  - To Add a reference follow these steps,
    - 1) Right-click the top item in the Solution Explorer, select Add Reference…
    - 2) Click the browse tab
    - 3) Find the Nhibernate.dll, in your install directory/bin/net-2.0/
    - 4) You will now have a Bin folder in your Solution Explorer, collapse this.

Step-2: Database and Tables creation

1) Create a database called "DBNHibernateMVC"(may be anything,but to run according to my explaination it is requierd) in your Sql Server Management Studio Express

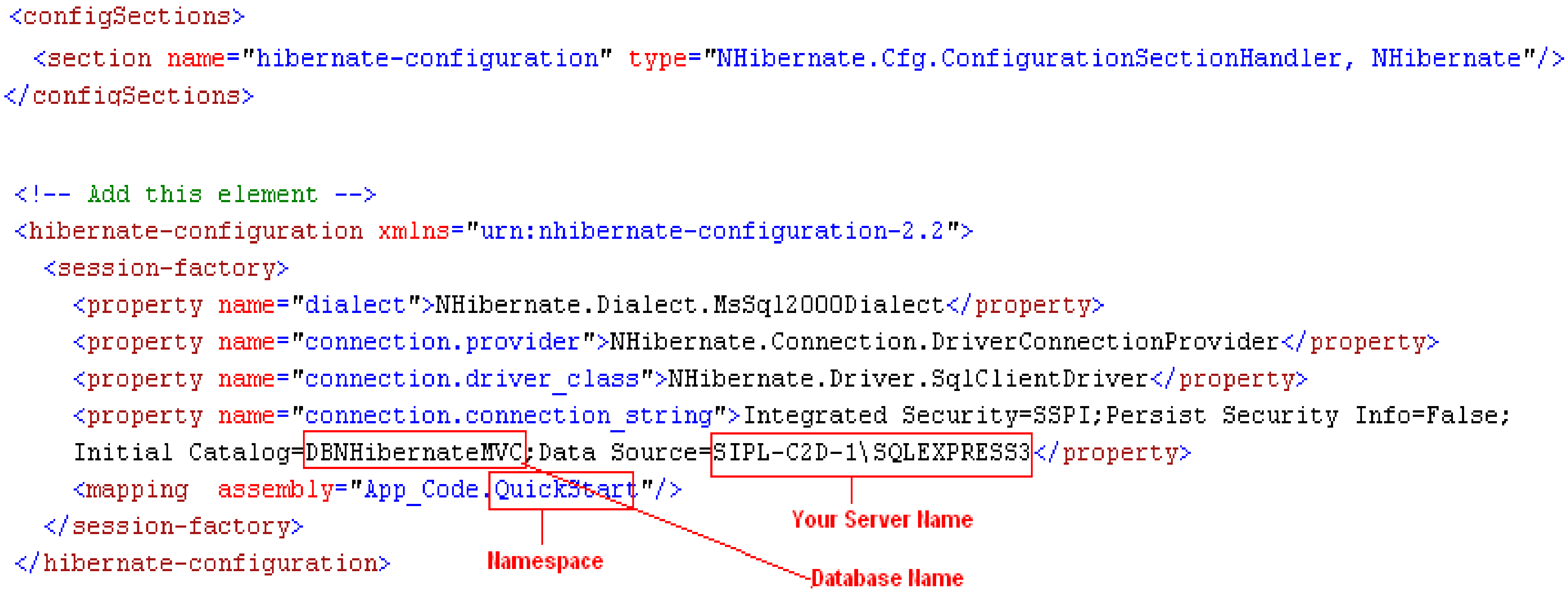
2) Create a table called "Employees" with the following fields



Column Name	Data Type
emp_id	int
emp_name	nvarchar(50)
emp_designation	nvarchar(50)

Step-3: Modify code in Web.config

Add the following to your Web.config file, just after the <configuration> tag

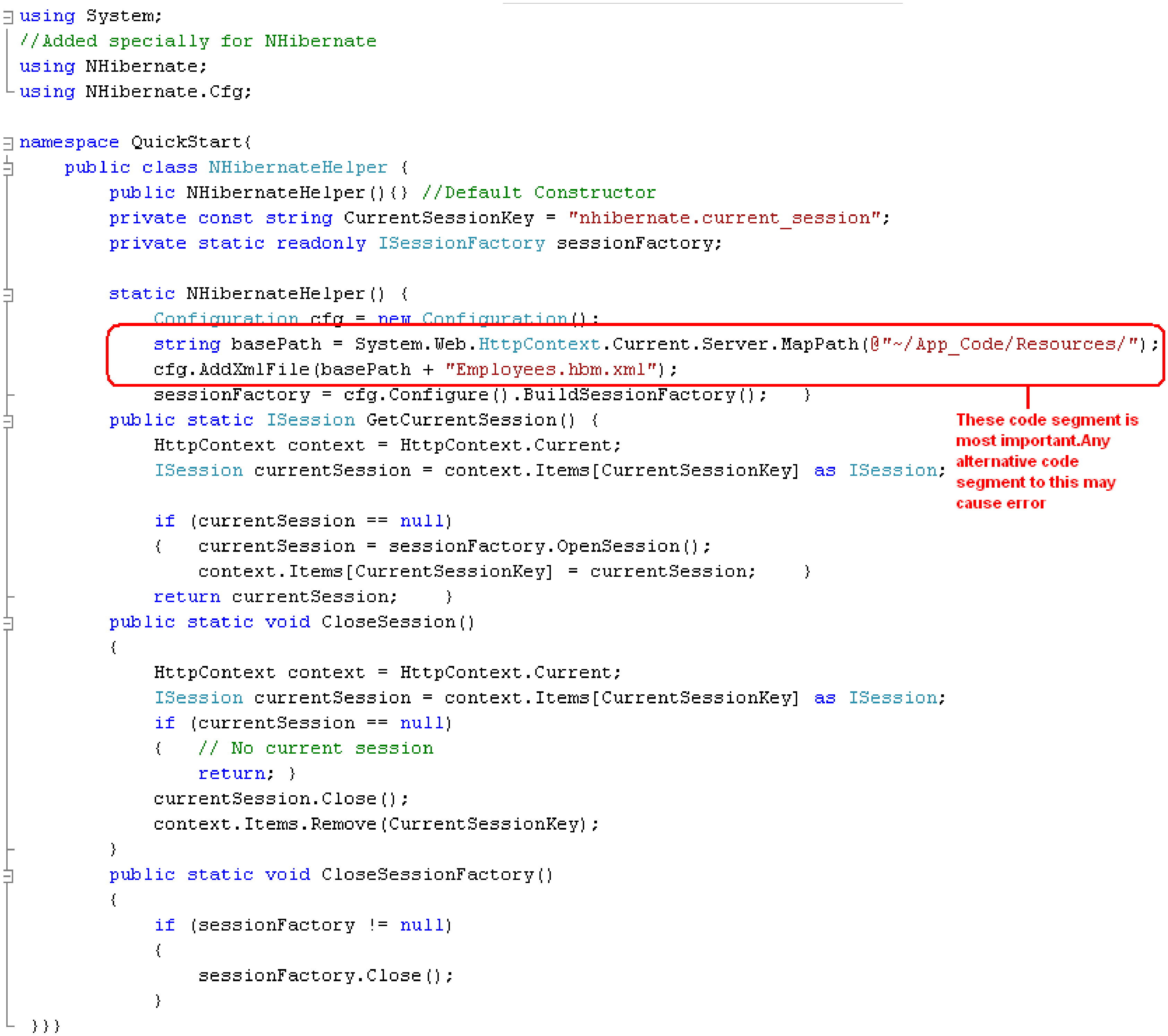


```
<configSections>
  <section name="hibernate-configuration" type="NHibernate.Cfg.ConfigurationSectionHandler, NHibernate"/>
</configSections>


 <!-- Add this element -->
 <hibernate-configuration xmlns="urn:nhibernate-configuration-2.2">
   <session-factory>
     <property name="dialect">NHibernate.Dialect.MsSql2000Dialect</property>
     <property name="connection.provider">NHibernate.Connection.DriverConnectionProvider</property>
     <property name="connection.driver_class">NHibernate.Driver.SqlClientDriver</property>
     <property name="connection.connection_string">Integrated Security=SSPI;Persist Security Info=False;
     Initial Catalog=DBNHibernateMVC;Data Source=SIPL-C2D-1\SQLEXPRESS3</property>
     <mapping  assembly="App_Code.QuickStart"/>
   </session-factory>
 </hibernate-configuration>
```

NOTE : If you don’t have a Web.config file, click the Green Go arrow >, and Web Developer Express will ask if you want to activate debugging, this will create a Web.config for you.

Step-4: Add NHibernateHelper.cs class in App_Code folder

- Right-click your project in Solution Explorer, and click Add New Item
- Select Class File, and call it NHibernateHelper.cs
- You will be prompted about putting this into a folder called App_Code…
- Click Ok/yes
- Place codes shown in the next slide inside.

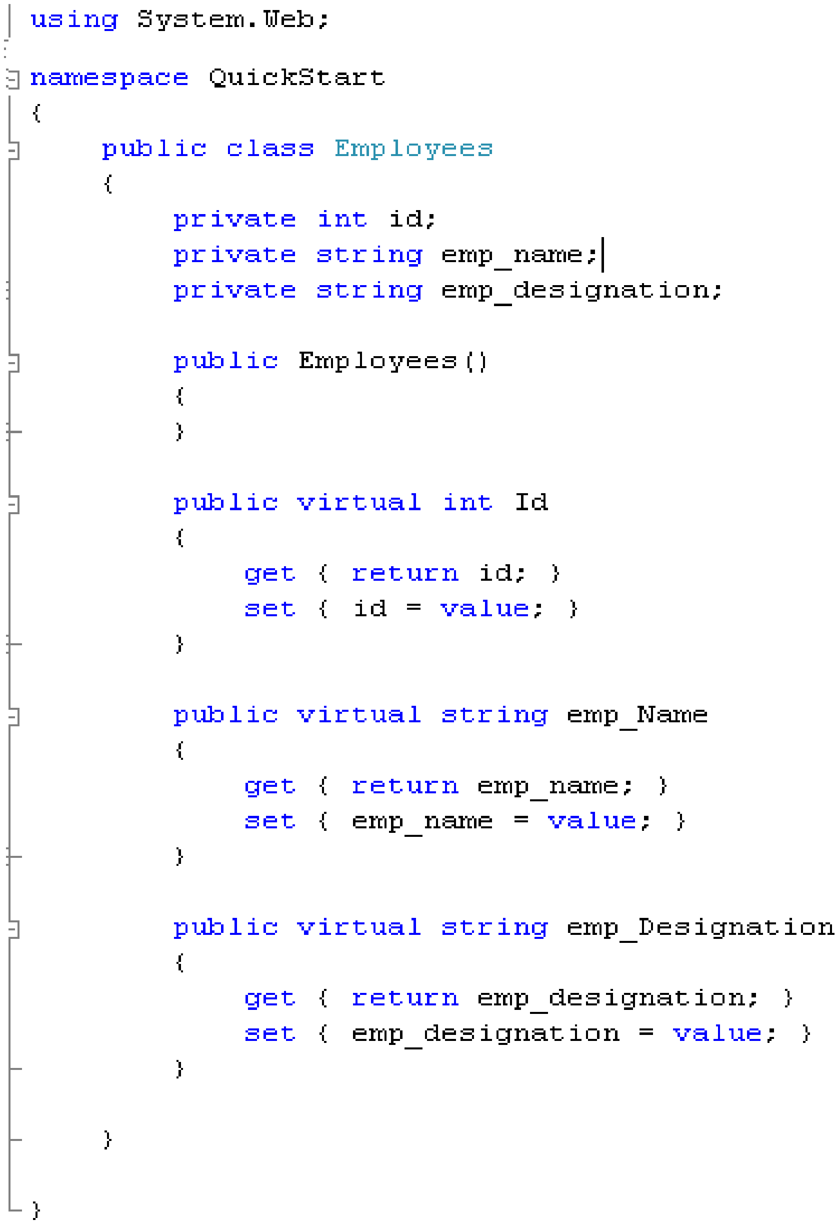


```
using System;
//Added specially for NHibernate
using NHibernate;
using NHibernate.Cfg;

namespace QuickStart{
    public class NHibernateHelper {
        public NHibernateHelper(){} //Default Constructor
        private const string CurrentSessionKey = "nhibernate.current_session";
        private static readonly ISessionFactory sessionFactory;

        static NHibernateHelper() {
            Configuration cfg = new Configuration();
            string basePath = System.Web.HttpContext.Current.Server.MapPath(@"~/App_Code/Resources/");
            cfg.AddXmlFile(basePath + "Employees.hbm.xml");
            sessionFactory = cfg.Configure().BuildSessionFactory();    }
        public static ISession GetCurrentSession() {
            HttpContext context = HttpContext.Current;
            ISession currentSession = context.Items[CurrentSessionKey] as ISession;

            if (currentSession == null)
            {   currentSession = sessionFactory.OpenSession();
                context.Items[CurrentSessionKey] = currentSession;    }
            return currentSession;    }
        public static void CloseSession()
        {
            HttpContext context = HttpContext.Current;
            ISession currentSession = context.Items[CurrentSessionKey] as ISession;
            if (currentSession == null)
            {   // No current session
                return; }
            currentSession.Close();
            context.Items.Remove(CurrentSessionKey);
        }
        public static void CloseSessionFactory()
        {
            if (sessionFactory != null)
            {
                sessionFactory.Close();
            }
 }}}
```

These code segment is most important.Any alternative code segment to this may cause error

Step-5: Create a new class under App_Code called Employees.cs

Employee.cs



```
using System.Web;

namespace QuickStart
{
    public class Employees
    {
        private int id;
        private string emp_name;
        private string emp_designation;

        public Employees()
        {
        }

        public virtual int Id
        {
            get { return id; }
            set { id = value; }
        }

        public virtual string emp_Name
        {
            get { return emp_name; }
            set { emp_name = value; }
        }

        public virtual string emp_Designation
        {
            get { return emp_designation; }
            set { emp_designation = value; }
        }

    }
}
```

Step-6 : Add code in Default.cs

1) Create a WebForm, under your main project, called Default.aspx.
Make sure you select the ‘Place code in seperate file’ option.

2) In Default.cs file, add the following:

a) Add the imports: ”

```
using NHibernate;
using NHibernate.Cfg;using NHibernateHelpers;“
```

b) Under the Page_Load function

```
ISession session = NHibernateControl.GetCurrentSession();
ITransaction tx = session.BeginTransaction();
Employees emp = new Employees();
emp.Id = 1;
emp.emp_Name = "Tapamay Ghosh";
emp.emp_Designation = "Software Developer";
session.Save(tx);
tx.Commit();
NHibernateControl.CloseSession(); “
```

Now run the project and you will hopefully see some data in your database!

Finish...

Thank You...

References:-

1) http://acoderslife.wordpress.com/tutorials/nhibernate-web-developer-express-and-sql-server-express-2005/installation-and-running-nhibernate/
2) http://www.codegod.de/WebAppCodeGod/nhibernate-tutorial-1---and-aspnet-AID25.aspx