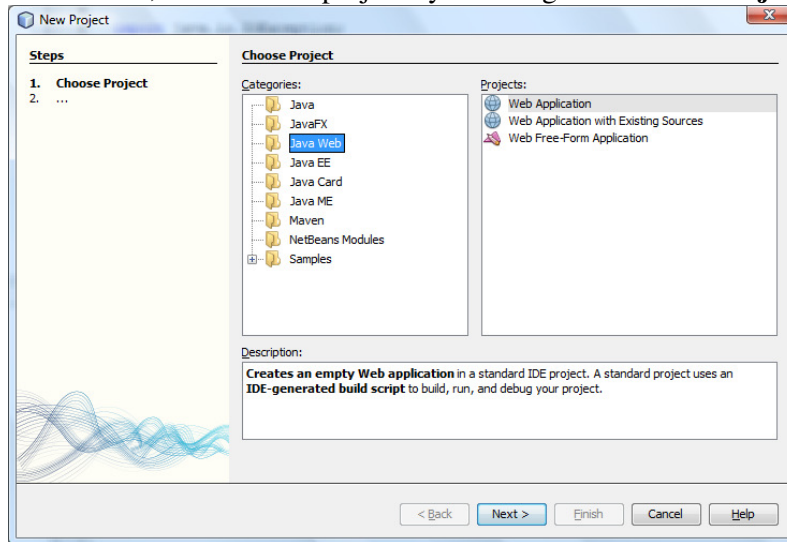
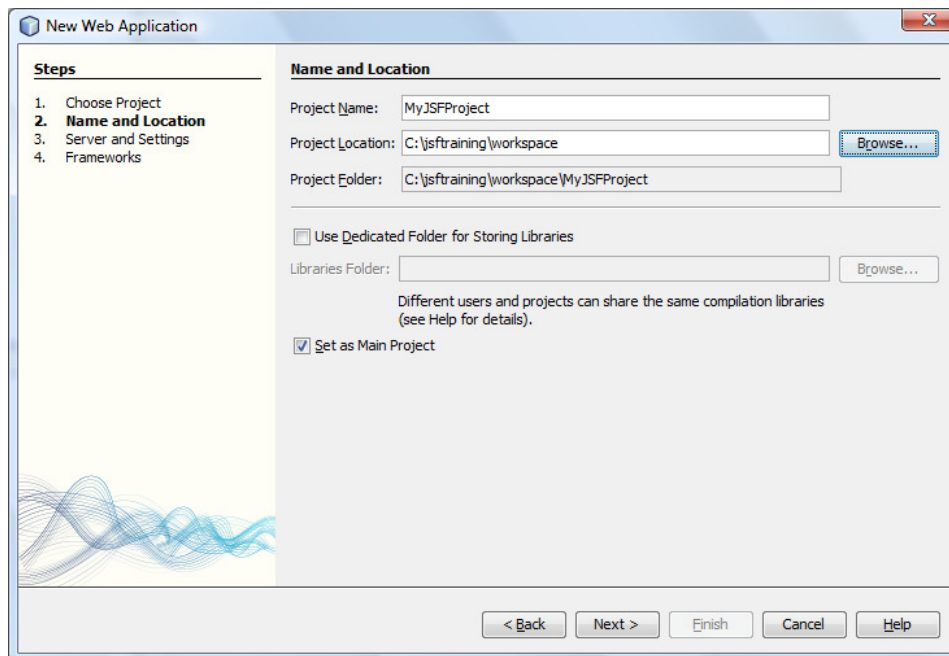


Lab 8: basic JSF

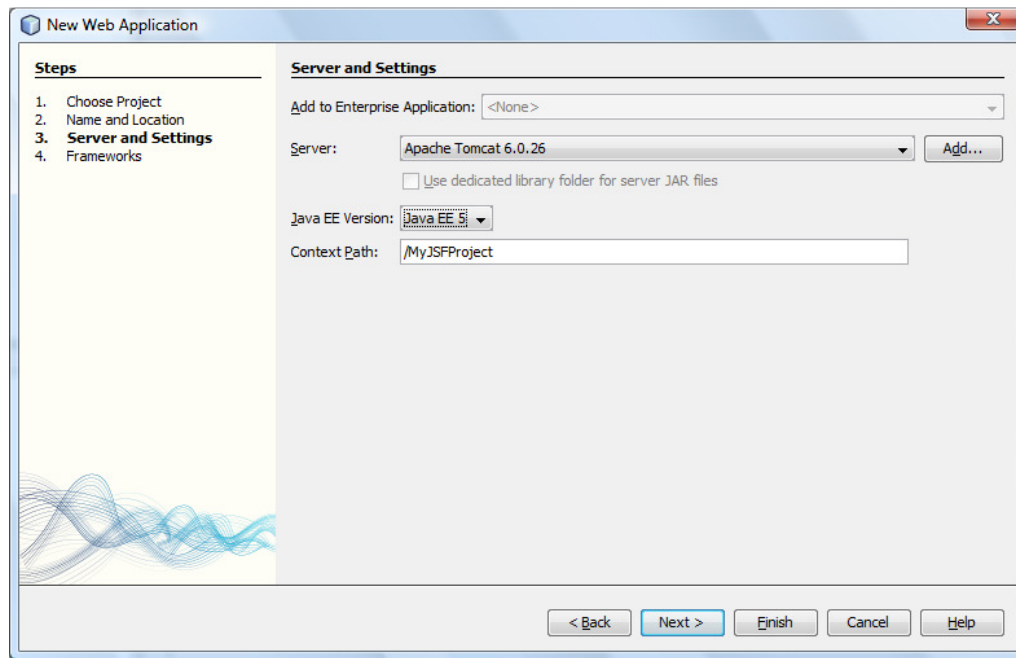
In Netbeans, create a new project by selecting **File-> New Project**



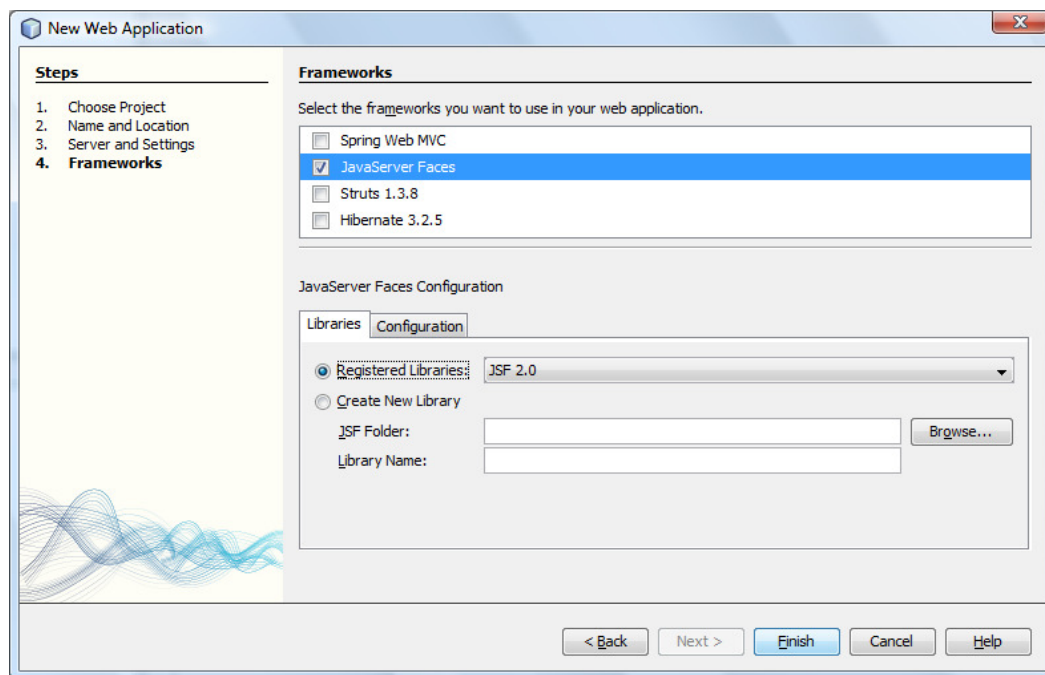
Choose **Java Web** and then **Web Application**. Click **Next**.



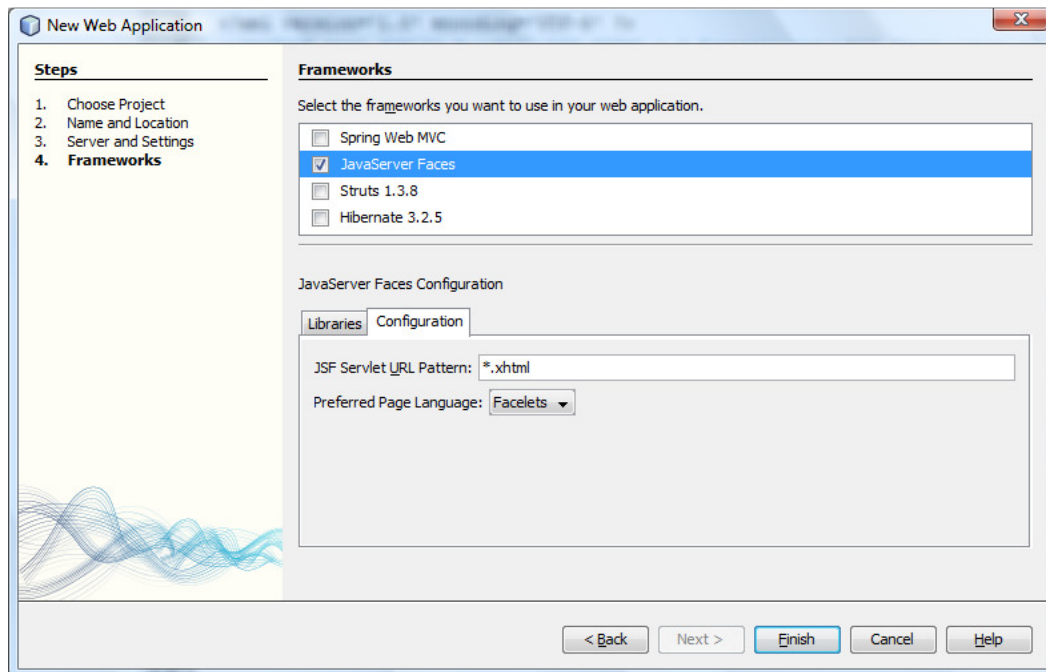
Give the project the name **MyJSFProject**. Click **Next**.



Click Next

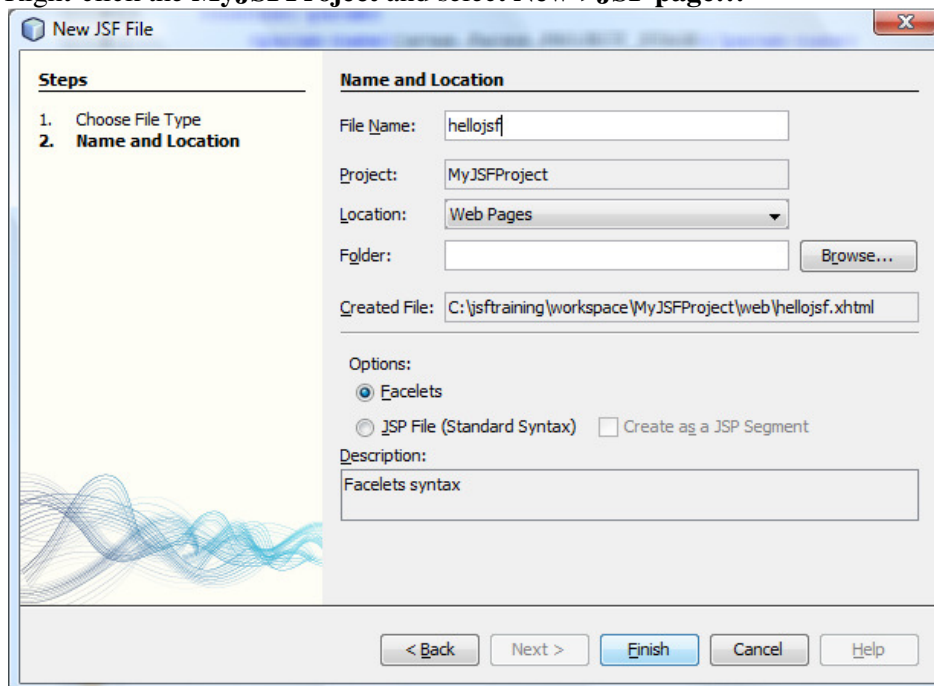


Select **JavaServer Faces**, and select **JSF 2.0**.

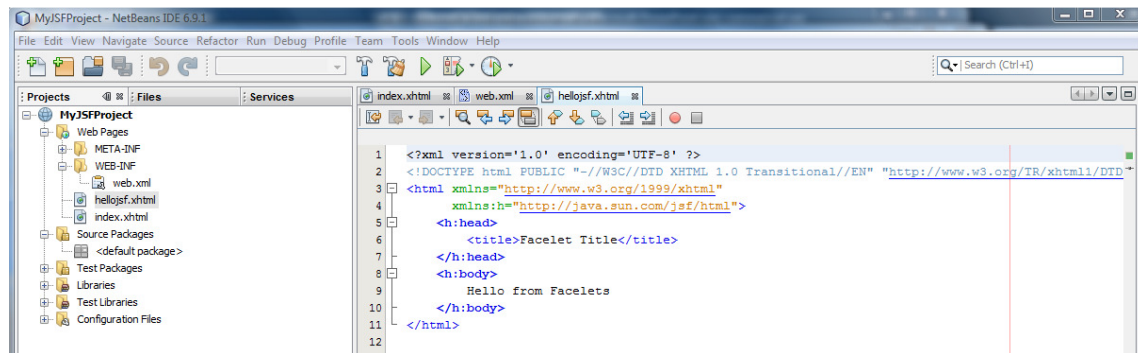


Select the Configuration tab, and enter the JSF Servlet URL Pattern ***.xhtml**. Click **Finish**.

The project **MyJSFProject** is now created in Netbeans. Right-click the **MyJSFProject** and select **New->JSF page...**



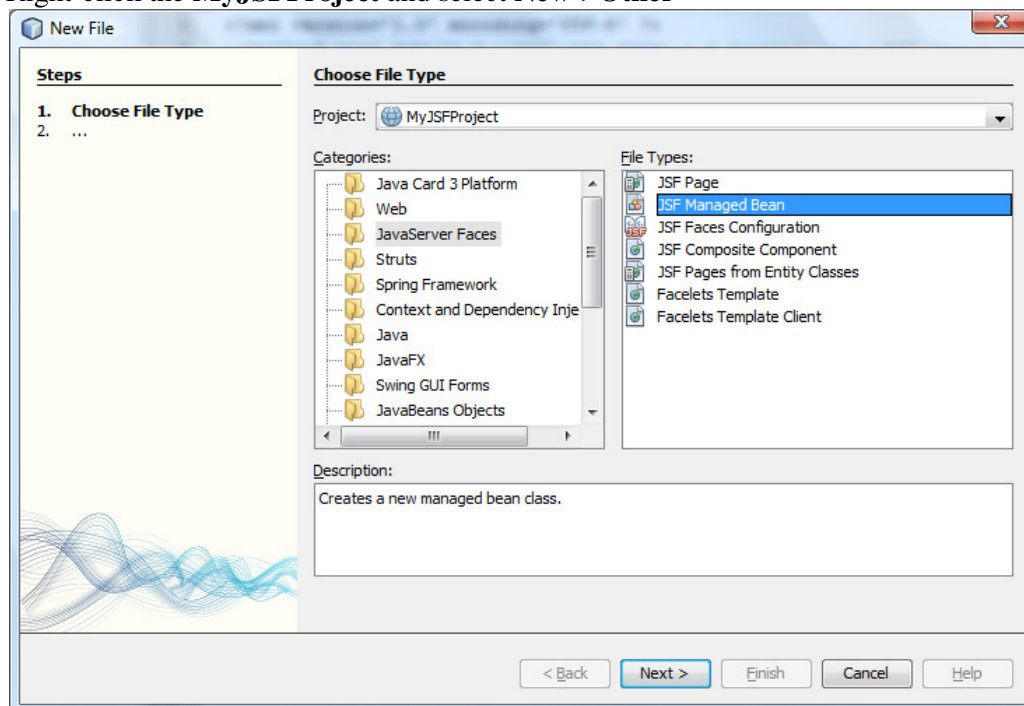
Name the file **hellojsf** and click **finish**.



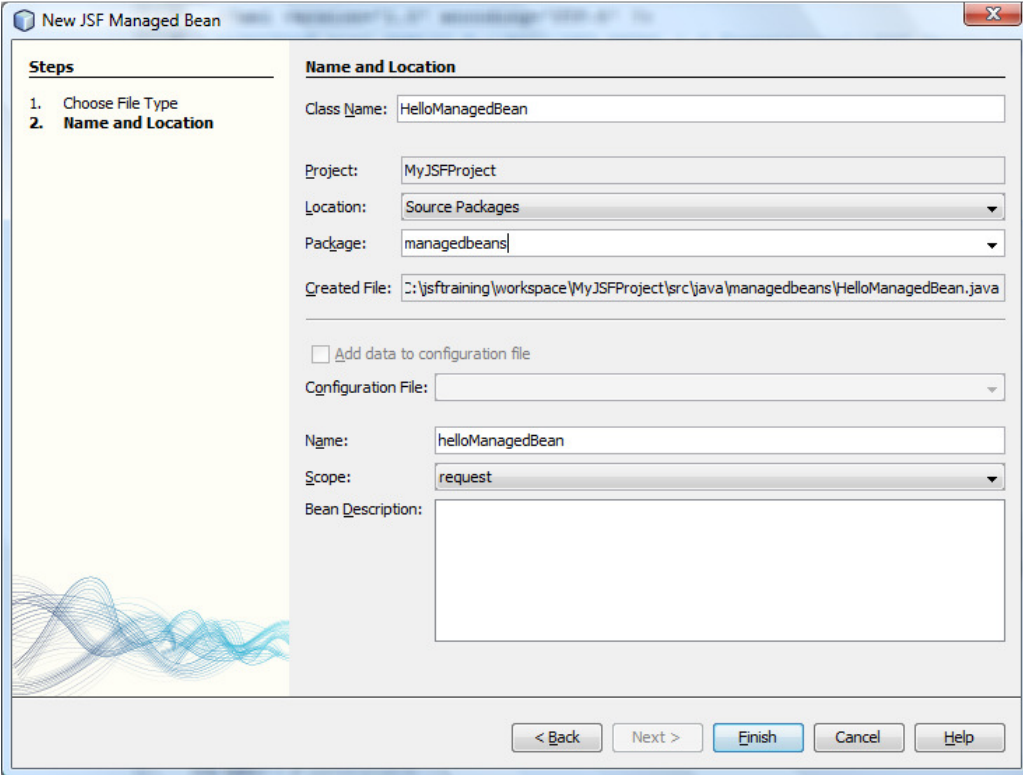
The file **hellojsf.xhtml** is now created.

Now we are going to create a managed bean.

Right-click the **MyJSFProject** and select **New->Other**



Choose **JavaServer Faces** and then **JSF Managed Beans**. Click **Next**.

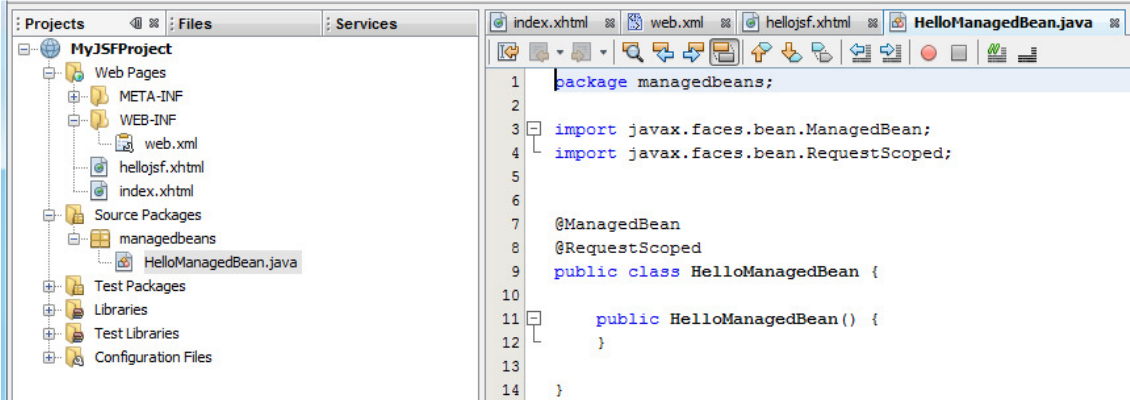


The image shows the 'New JSF Managed Bean' dialog box in an IDE. It has a 'Steps' panel on the left with two steps: '1. Choose File Type' and '2. Name and Location'. The 'Name and Location' section contains the following fields:

- Class Name:** HelloManagedBean
- Project:** MyJSFProject
- Location:** Source Packages
- Package:** managedbeans
- Created File:** C:\jsftraining\workspace\MyJSFProject\src\java\managedbeans\HelloManagedBean.java
- ☐ Add data to configuration file
- Configuration File:** (empty dropdown)
- Name:** helloManagedBean
- Scope:** request
- Bean Description:** (empty text area)

At the bottom, there are buttons for '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

Name the managedbean **HelloManagedBean** and name the package **managedbeans**. Click **Finish**.



The image shows an IDE window with the 'MyJSFProject' project structure on the left and the 'HelloManagedBean.java' file open in the editor on the right.

Project Structure:

- MyJSFProject
 - Web Pages
 - META-INF
 - WEB-INF
 - web.xml
 - hellojsf.xhtml
 - index.xhtml
 - Source Packages
 - managedbeans
 - HelloManagedBean.java
 - Test Packages
 - Libraries
 - Test Libraries
 - Configuration Files

Code in HelloManagedBean.java:

```
1 package managedbeans;
2
3 import javax.faces.bean.ManagedBean;
4 import javax.faces.bean.RequestScoped;
5
6
7 @ManagedBean
8 @RequestScoped
9 public class HelloManagedBean {
10
11     public HelloManagedBean() {
12     }
13
14 }
```

A default **HelloManagedBean** is created with the corresponding annotations.

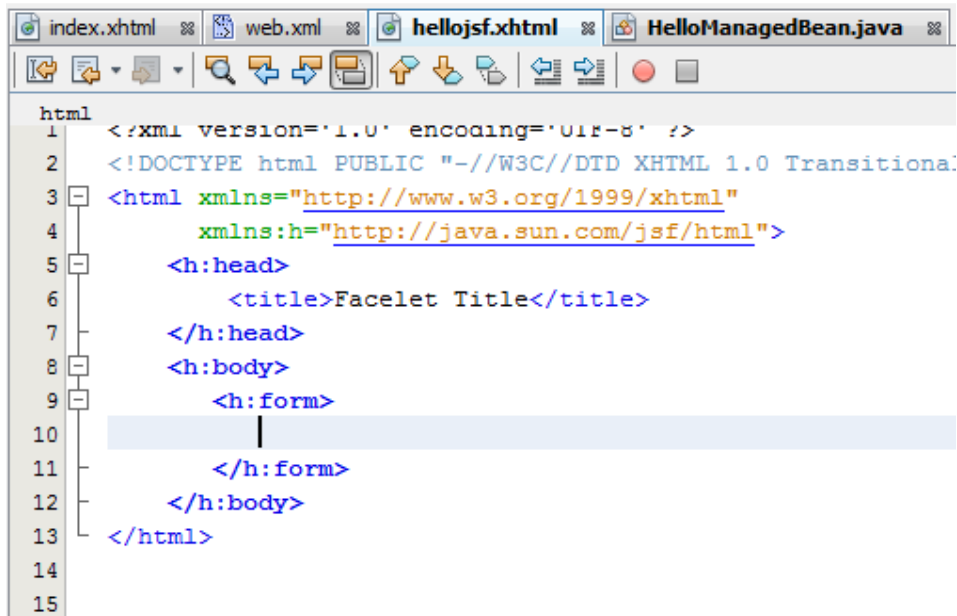
Change the **HelloManagedBean**:

```
package managedbeans;  
import javax.faces.bean.ManagedBean;  
import javax.faces.bean.RequestScoped;
```

```
@ManagedBean  
@RequestScoped  
public class HelloManagedBean {  
    private String name;  
  
    public String getName() {  
        return name;  
    }  
  
    public void setName(String name) {  
        this.name = name;  
    }  
  
    public String sayHello() {  
        return null;  
    }  
}
```

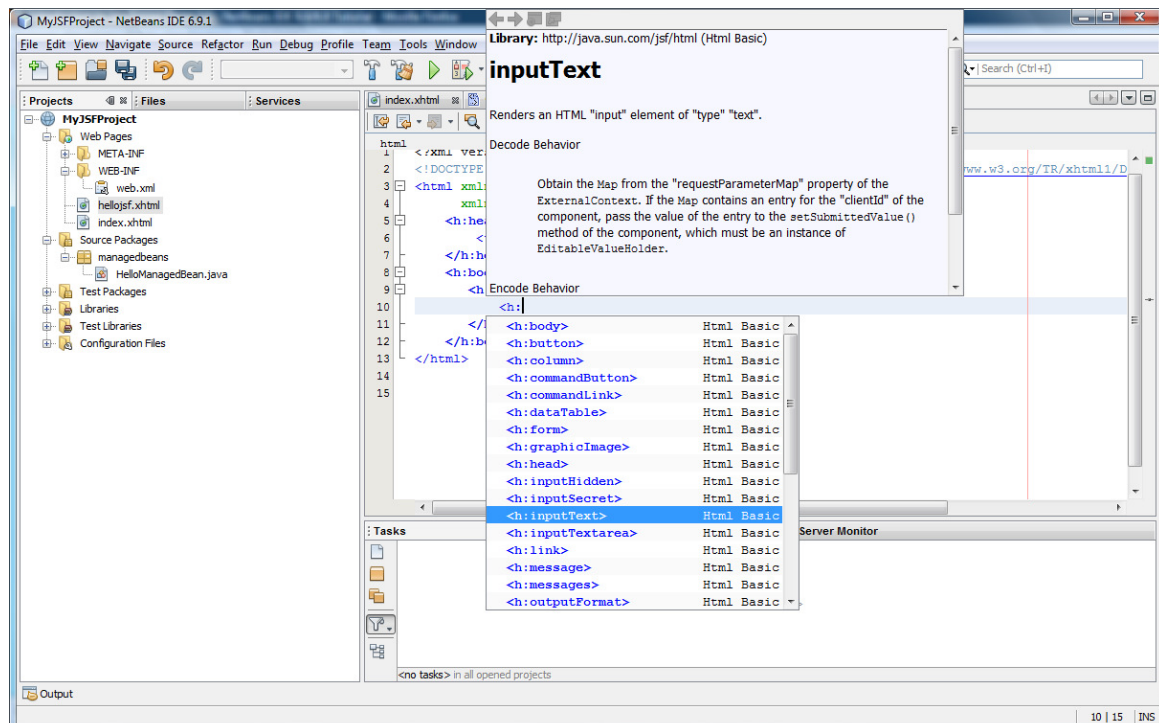
Now we are going to edit **hellojsf.xhtml**.

Add a JSF form (**<h:form>** and **</h:form>**) in the body of the xhtml page.



```
1  html
2  <?xml version='1.0' encoding='UTF-8' ?>
3  <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional
4  <html xmlns="http://www.w3.org/1999/xhtml"
5  xmlns:h="http://java.sun.com/jsf/html">
6  <h:head>
7  <title>Facelet Title</title>
8  </h:head>
9  <h:body>
10 <h:form>
11 |
12 </h:form>
13 </h:body>
14 </html>
15
```

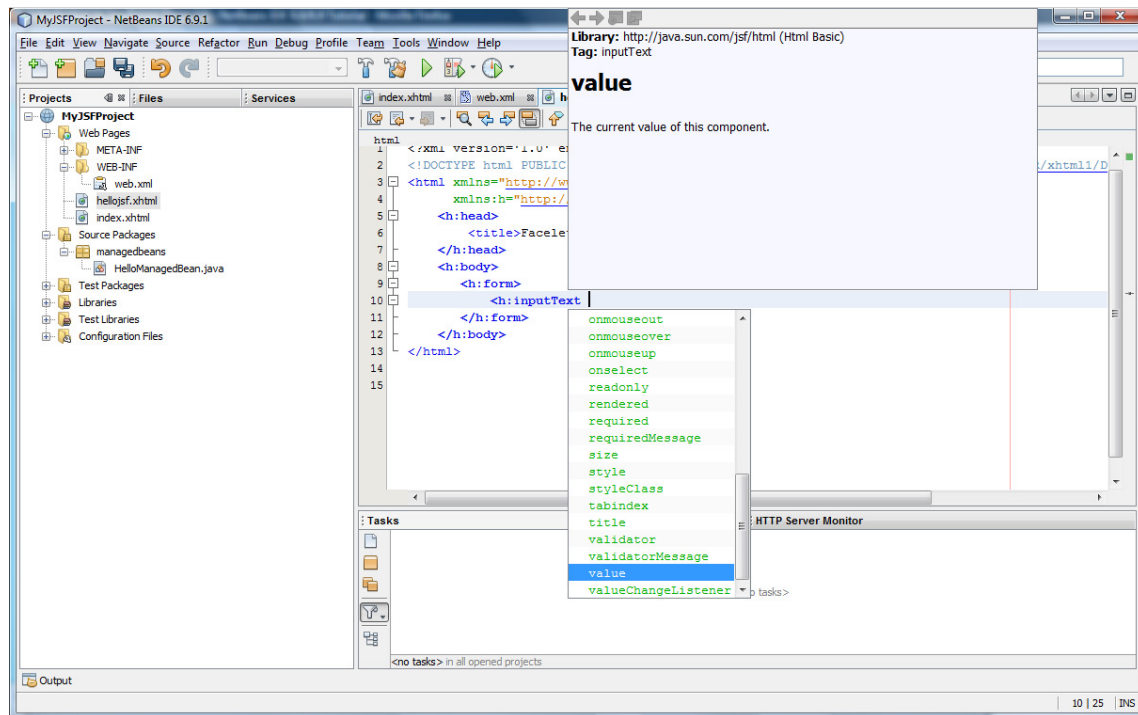
Place the cursor between the **<h:form>** and **</h:form>** tags and type **<h:**



Double-click **<h:inputText>**

```
8      </h:body>
9      </h:form>
10     <h:inputText |
11     </h:form>
12    </h:body>
```

Now type a space:



Double-click **value**

```
8      </h:body>
9      </h:form>
10     <h:inputText value="#{helloManagedBean.name}" />
11     </h:form>
12    </h:body>
```

Finish the inputText as given above.


```

1 <?xml version='1.0' encoding='UTF-8' ?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xi
3 <html xmlns="http://www.w3.org/1999/xhtml"
4     xmlns:h="http://java.sun.com/jsf/html">
5     <h:head>
6         <title>Say hello</title>
7     </h:head>
8     <h:body>
9         <h:form>
10             Type your name:
11             <h:inputText value="#{helloManagedBean.name}" />
12             <br/>
13             <h:commandButton value="Say Hello" action="#{helloManagedBean.sayHello}" />
14             <br/>
15             <h:outputText value="#{helloManagedBean.name}" />
16         </h:form>
17     </h:body>
18 </html>

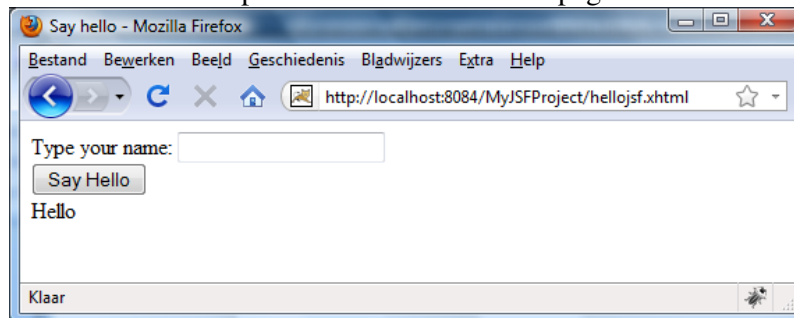
```

Finish the JSF page as given above.

Now we want to test our JSF application.

Right-click hellojsf.xhtml and select Run File.

A browser is now opened that shows the web page:



Test if your application works.

Exercise : Calculator

Create a new JSF JSP page that allows you to calculate as follows:

