

JSF - TEMPLATE TAGS

http://www.tutorialspoint.com/jsf/jsf_templates_tag.htm

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Templates in a web application defines a common interface layout and style. For example, a same banner, logo in common header and copyright information in footer. JSF provides following facelets tags to provide a standard web interface layout.

S.N.	Tag & Description
1	ui:insert Used in template file. It defines contents to be placed in a template. ui:define tag can replaced its contents.
2	ui:define Defines the contents to be inserted in a template.
3	ui:include Includes contents of one xhtml page into another xhtml page.
4	ui:composition Loads a template using template attribute. It can also define a group of components to be inserted in xhtml page.

Creating Template

Creating template for a web application is a step-by-step procedure. Let's follow the following steps to create a sample template.

Step 1: Create Header file: header.xhtml

Use **ui:composition** tag to define a default content of Header section.

```
<ui:composition>
  <h1>Default Header</h1>
</ui:composition>
```

Step 2: Create Footer file: footer.xhtml

Use **ui:composition** tag to define a default content of Footer section.

```
<ui:composition>
  <h1>Default Footer</h1>
</ui:composition>
```

Step 3: Create Content file: contents.xhtml

Use **ui:composition** tag to define a default content of Content section.

```
<ui:composition>
  <h1>Default Contents</h1>
</ui:composition>
```

Step 4: Create a Template: common.xhtml

Use **ui:insert** and **ui:include** tag to include header/footer and content file in template file. Name each section in **ui:insert** tag.

name attribute of **ui:insert** tag will be used to replace contents of corresponding section.

```
<h:body>
  <ui:insert name="header" >
    <ui:include src="header.xhtml" />
  </ui:insert>
  <ui:insert name="content" >
    <ui:include src="contents.xhtml" />
  </ui:insert>
  <ui:insert name="footer" >
    <ui:include src="footer.xhtml" />
  </ui:insert>
</h:body>
```

Step 5a: Use Template with default contents: home.xhtml

load common.xhtml, a template using **ui:composition** tag in any.xhtml page.

```
<h:body>
  <ui:composition template="common.xhtml">
</h:body>
```

Step 5b: Use Template and set own contents: home.xhtml

load common.xhtml, a template using **ui:composition** tag in any.xhtml page. Use **ui:define** tag to override default values.

```
<h:body>
  <ui:composition template="templates/common.xhtml">
    <ui:define name="content">
      <h:link value="Page 1" outcome="page1" />
      &nbsp;
      <h:link value="Page 2" outcome="page2" />
    </ui:define>
  </ui:composition>
</h:body>
```

Example Application

Let us create a test JSF application to test the template tags in JSF.

Step	Description
1	Create a project with a name <i>helloworld</i> under a package <i>com.tutorialspoint.test</i> as explained in the <i>JSF - First Application</i> chapter.
2	Create <i>templates</i> folder under <i>src > main > webapp</i> folder.
3	Create <i>header.xhtml</i> , <i>footer.xhtml</i> , <i>contents.xhtml</i> and <i>common.xhtml</i> files under <i>src > main > webapp > templates</i> folder. Modify them as explained below.
3	Create <i>page1.xhtml</i> and <i>page2.xhtml</i> files under <i>src > main > webapp</i> folder. Modify them as explained below.
4	Modify <i>home.xhtml</i> as explained below. Keep rest of the files unchanged.
5	Compile and run the application to make sure business logic is working as per the requirements.

- 6 Finally, build the application in the form of war file and deploy it in Apache Tomcat Webserver.
- 7 Launch your web application using appropriate URL as explained below in the last step.

header.xhtml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:ui="http://java.sun.com/jsf/facelets">
  <body>
    <ui:composition>
      <h1>Default Header</h1>
    </ui:composition>
  </body>
</html>
```

footer.xhtml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:ui="http://java.sun.com/jsf/facelets">
  <body>
    <ui:composition>
      <h1>Default Footer</h1>
    </ui:composition>
  </body>
</html>
```

contents.xhtml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:ui="http://java.sun.com/jsf/facelets">
  <body>
    <ui:composition>
      <h1>Default Content</h1>
    </ui:composition>
  </body>
</html>
```

common.xhtml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:h="http://java.sun.com/jsf/html"
      xmlns:ui="http://java.sun.com/jsf/facelets">
  <h:head></h:head>
  <h:body>
    <div style="border-width:2px; border-color:green; border-style:solid;">
      <ui:insert name="header" >
        <ui:include src="/templates/header.xhtml" />
      </ui:insert>
    </div>
    <br/>
    <div style="border-width:2px; border-color:black; border-style:solid;">
      <ui:insert name="content" >
```

```

        <ui:include src="/templates/contents.xhtml" />
    </ui:insert>
</div>
<br/>
<div style="border-width:2px; border-color:red; border-style:solid;">
    <ui:insert name="footer" >
        <ui:include src="/templates/footer.xhtml" />
    </ui:insert>
</div>
</h:body>
</html>

```

page1.xhtml

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
xmlns:h="http://java.sun.com/jsf/html"
xmlns:ui="http://java.sun.com/jsf/facelets">
<h:body>
    <ui:composition template="templates/common.xhtml">
        <ui:define name="header">
            <h2>Page1 header</h2>
        </ui:define>
        <ui:define name="content">
            <h2>Page1 content</h2>
            <h:link value="Back To Home" outcome="home" />
        </ui:define>
        <ui:define name="footer">
            <h2>Page1 Footer</h2>
        </ui:define>
    </ui:composition>
</h:body>
</html>

```

page2.xhtml

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
xmlns:h="http://java.sun.com/jsf/html"
xmlns:ui="http://java.sun.com/jsf/facelets">
<h:body>
    <ui:composition template="templates/common.xhtml">
        <ui:define name="header">
            <h2>Page2 header</h2>
        </ui:define>
        <ui:define name="content">
            <h2>Page2 content</h2>
            <h:link value="Back To Home" outcome="home" />
        </ui:define>
        <ui:define name="footer">
            <h2>Page2 Footer</h2>
        </ui:define>
    </ui:composition>
</h:body>
</html>

```

home.xhtml

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
xmlns:h="http://java.sun.com/jsf/html"

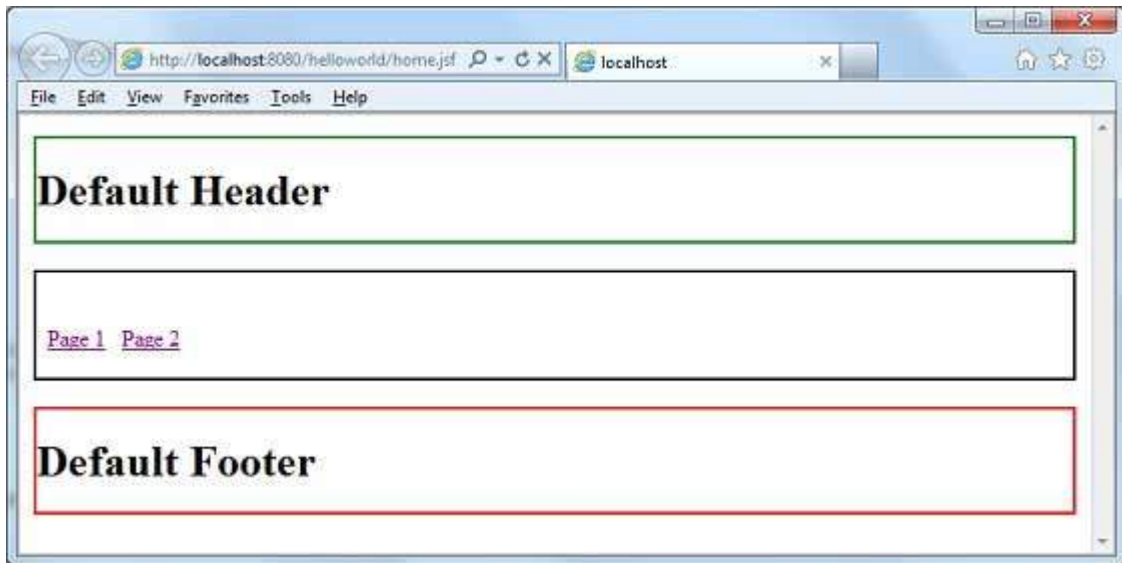
```

```

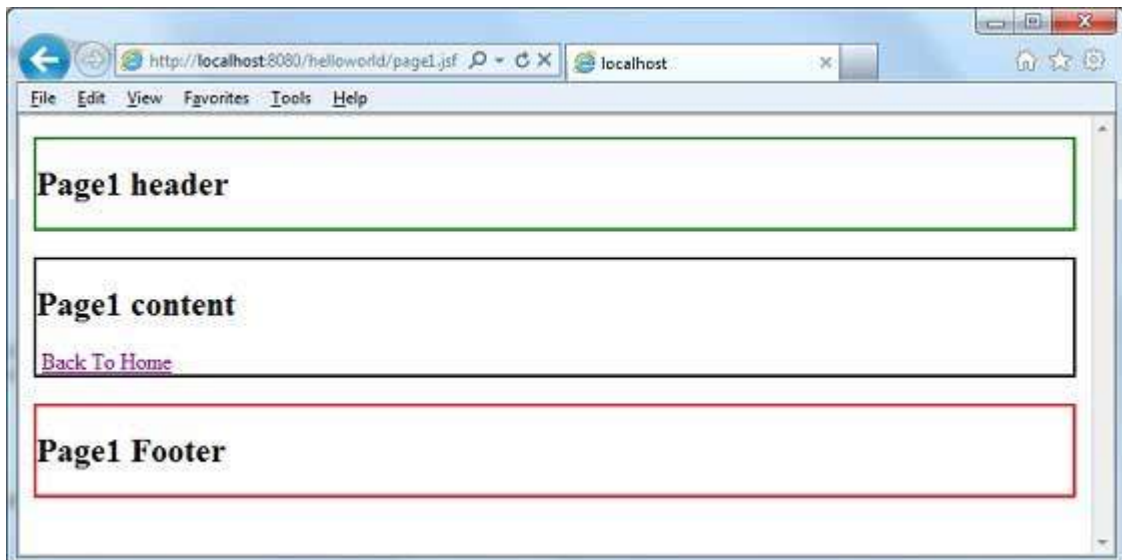
xmlns:ui="http://java.sun.com/jsf/facelets">
<h:body>
  <ui:composition template="templates/common.xhtml">
    <ui:define name="content">
      <br/><br/>
      <h:link value="Page 1" outcome="page1" />
      <h:link value="Page 2" outcome="page2" />
      <br/><br/>
    </ui:define>
  </ui:composition>
</h:body>
</html>

```

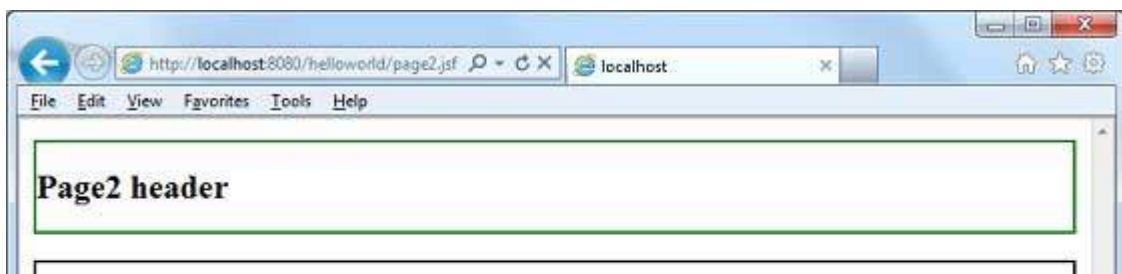
Once you are ready with all the changes done, let us compile and run the application as we did in JSF - First Application chapter. If everything is fine with your application, this will produce following result:



Click **Page1** link and you'll see the following result.



Or Click **Page2** link and you'll see the following result.



Page2 content

[Back To Home](#)

Page2 Footer