

Web App Dev II

Templates I

Basic template-mechanism

- Template file
- Client file

Basic Steps

1. Define a template file
 1. Content that will appear in all clients is entered directly
 2. Content that can be replaced in client files is marked with *ui:insert* (with default values in case client does not supply content)
2. Define a client file that uses the template
 1. Use *ui:composition* to specify the template file used
 2. Use *ui:define* to override content for each replaceable section in template (marked in template with *ui:insert*).
3. Access the client file via the browser as Users never access template files directly.

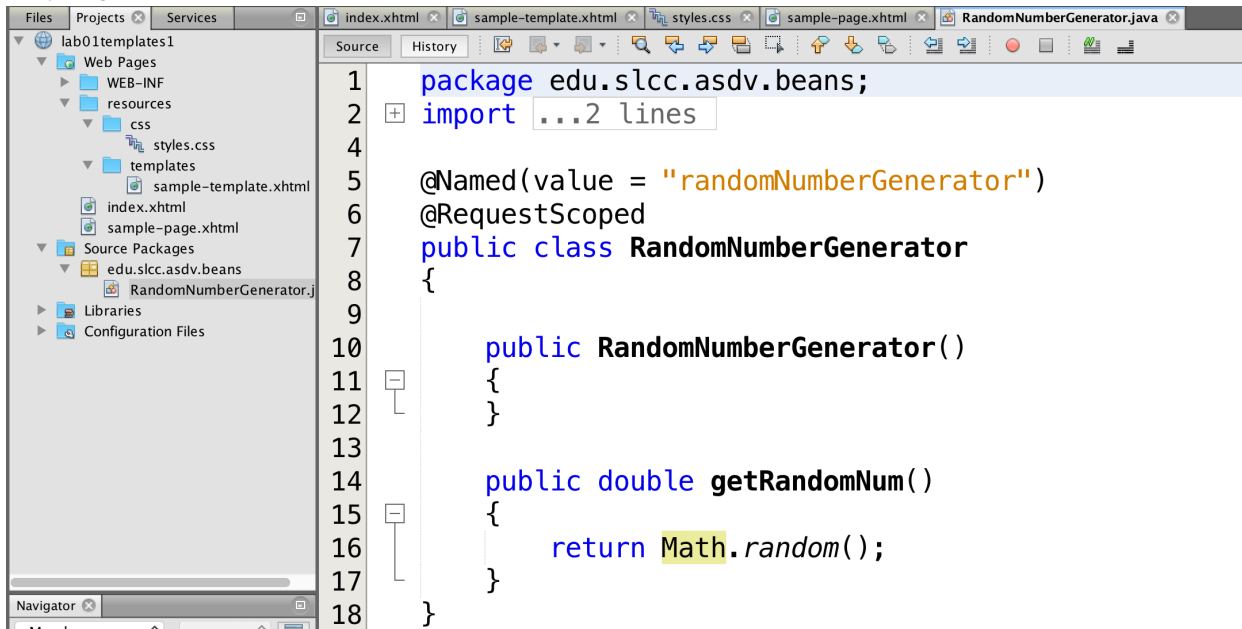
How to design a Template File:

- Insert shared content literally
 - ✓ If you have HTML or JSF data that will be used by all clients, place it directly in template file
 - ✓ Everything can be used in template: Normal *JSF elements*, Regular *HTML*, *EL* (expression language), *h:dataTable*, *ui:repeat*, etc.
- Mark **replaceable sections with ui:insert**
 - ✓ Give a **name** to the section (client will refer to name)
 - ✓ Put default content between `<ui:insert...>` and `</ui:insert>`
 - If clients don't supply anything for name, they get default
- Put template files in separate folder, so they won't be confused with user-accessible files.

Practice

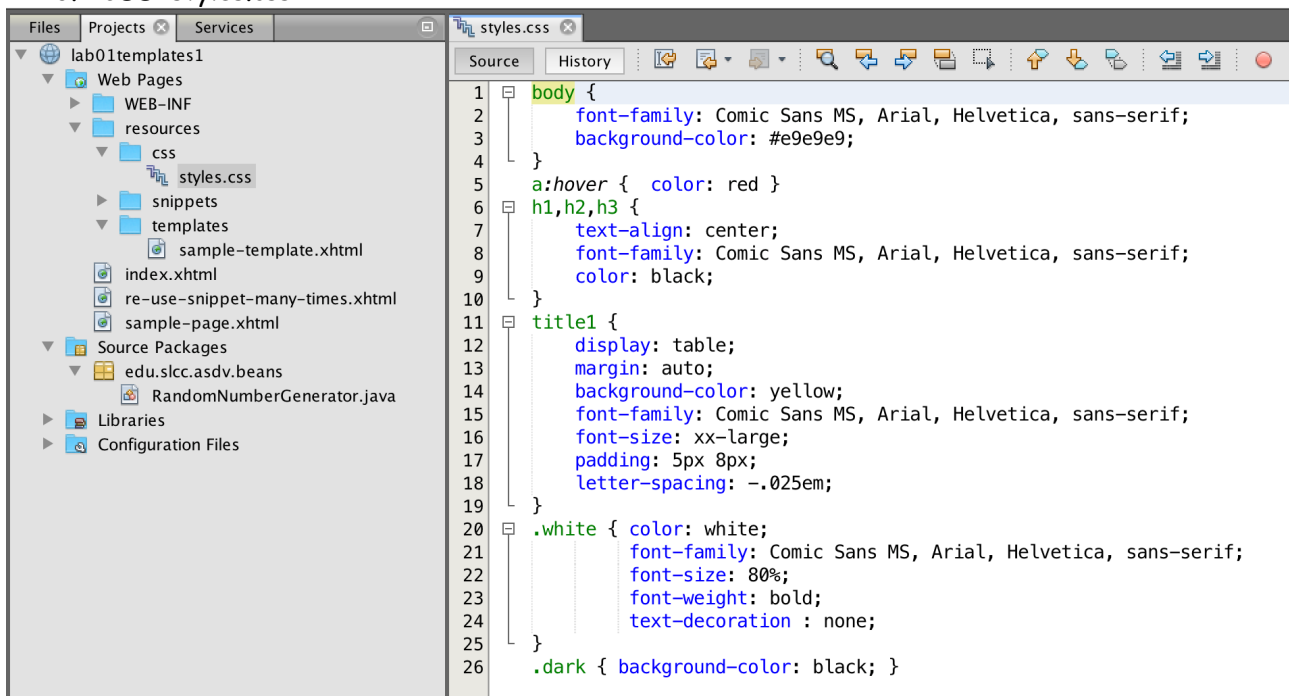
1. New Web App lab01Templates1

2. CDI Bean:



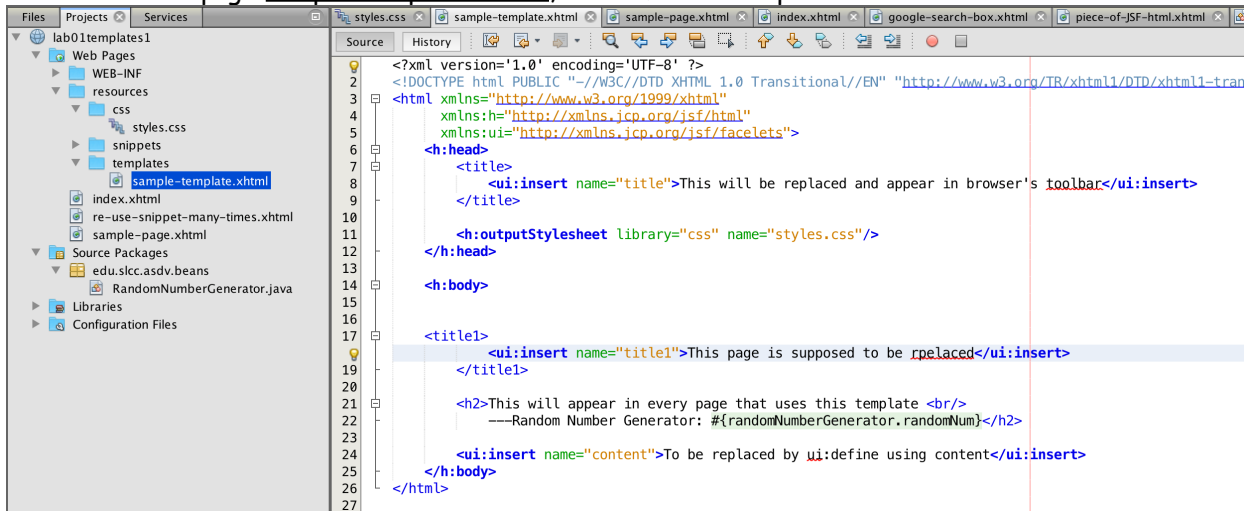
```
1 package edu.slcc.asdv.beans;
2 import ...2 lines
3
4
5 @Named(value = "randomNumberGenerator")
6 @RequestScoped
7 public class RandomNumberGenerator
8 {
9
10     public RandomNumberGenerator()
11     {
12     }
13
14     public double getRandomNum()
15     {
16         return Math.random();
17     }
18 }
```

3. CSS: styles.css



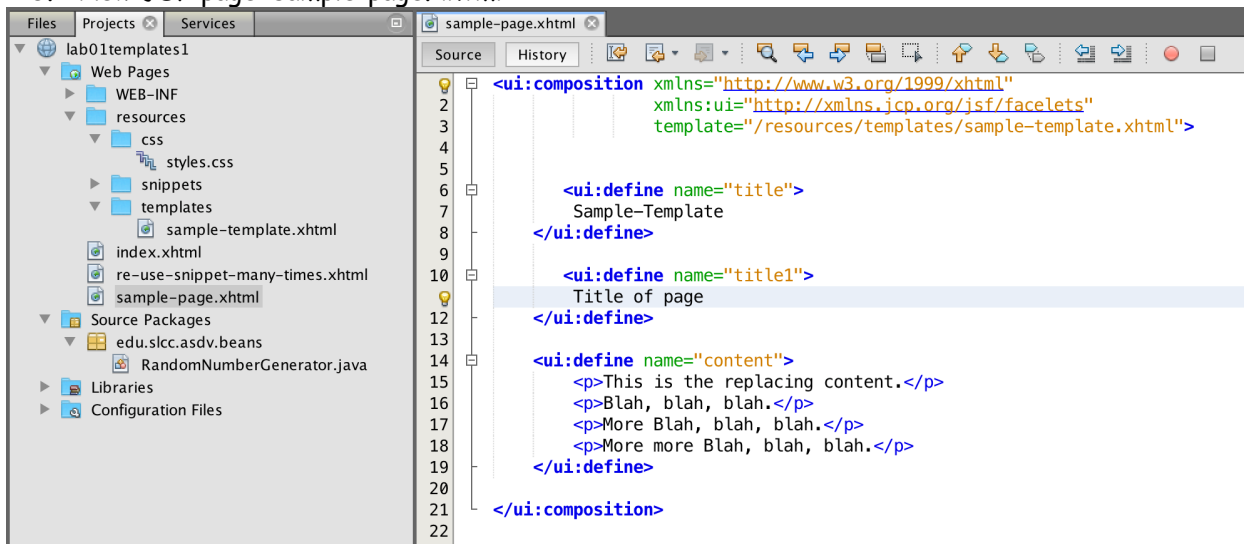
```
1 body {
2     font-family: Comic Sans MS, Arial, Helvetica, sans-serif;
3     background-color: #e9e9e9;
4 }
5 a: hover { color: red }
6 h1, h2, h3 {
7     text-align: center;
8     font-family: Comic Sans MS, Arial, Helvetica, sans-serif;
9     color: black;
10 }
11 title1 {
12     display: table;
13     margin: auto;
14     background-color: yellow;
15     font-family: Comic Sans MS, Arial, Helvetica, sans-serif;
16     font-size: xx-large;
17     padding: 5px 8px;
18     letter-spacing: -.025em;
19 }
20 .white { color: white;
21     font-family: Comic Sans MS, Arial, Helvetica, sans-serif;
22     font-size: 80%;
23     font-weight: bold;
24     text-decoration : none;
25 }
26 .dark { background-color: black; }
```

4. New JSF page: sample-template.xhtml, under folder templates



```
<?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://xmlns.jcp.org/jsf/html"
      xmlns:ui="http://xmlns.jcp.org/jsf/facelets">
  <h:head>
    <title>
      <ui:insert name="title">This will be replaced and appear in browser's toolbar</ui:insert>
    </title>
    <ui:outputStylesheet library="css" name="styles.css"/>
  </h:head>
  <h:body>
    <title>
      <ui:insert name="title1">This page is supposed to be replaced</ui:insert>
    </title>
    <h2>This will appear in every page that uses this template <br/>
    ---Random Number Generator: #{randomNumberGenerator.randomNum}</h2>
    <ui:insert name="content">To be replaced by ui:define using content</ui:insert>
  </h:body>
</html>
```

5. New JSF page: sample-page.xhtml



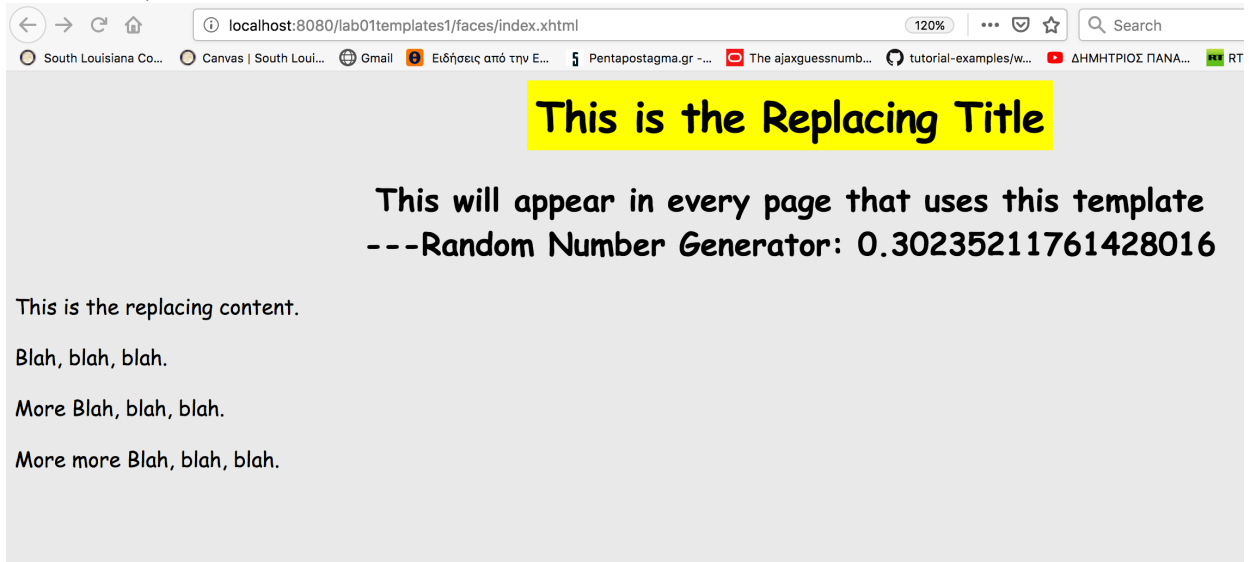
```
<ui:composition xmlns="http://www.w3.org/1999/xhtml"
               xmlns:ui="http://xmlns.jcp.org/jsf/facelets"
               template="/resources/templates/sample-template.xhtml">
  <ui:define name="title">
    Sample-Template
  </ui:define>
  <ui:define name="title1">
    Title of page
  </ui:define>
  <ui:define name="content">
    <p>This is the replacing content.</p>
    <p>Blah, blah, blah.</p>
    <p>More Blah, blah, blah.</p>
    <p>More more Blah, blah, blah.</p>
  </ui:define>
</ui:composition>
```

6. index



```
<?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://xmlns.jcp.org/jsf/html">
  <h:head>
    <title>Templates Test</title>
  </h:head>
  <h:body>
    <h:form>
      <h:commandLink value="JSF Page using sample-template" action="sample-page"/>
    </h:form>
  </h:body>
</html>
```

7. Clean, build and run.



The screenshot shows a web browser window with the address bar displaying `localhost:8080/lab01templates1/faces/index.xhtml`. The page content is as follows:

This is the Replacing Title

**This will appear in every page that uses this template
---Random Number Generator: 0.30235211761428016**

This is the replacing content.

Blah, blah, blah.

More Blah, blah, blah.

More more Blah, blah, blah.