

# Struts 2

## Struts 2 Tiles Framework Integration

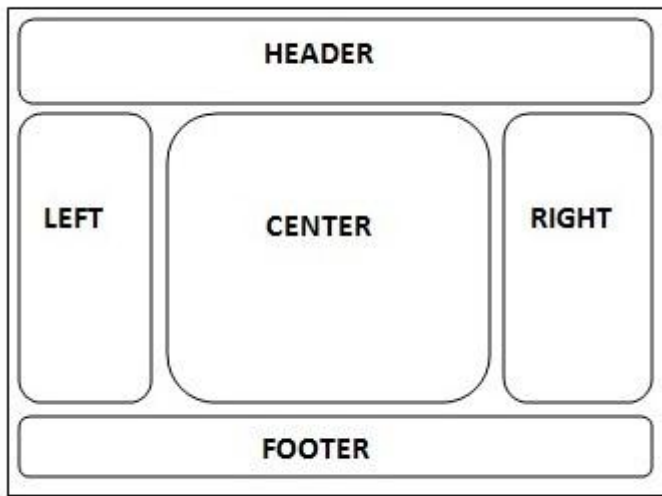
We can customize the layout of the struts 2 application by integrating with tiles framework.

A web page can contain many parts (known as tile) such as header, left pane, right pane, body part, footer etc. In tiles framework, we manage all the tile by our **Layout Manager** page.

### Advantage of tiles framework

There are following advantages of tiles framework:

- **Customization by centralized page** We can customize the layout of all the pages by single page (centralized page) only.
- **Code reusability** A single part e.g. header or footer can be used in many pages. So it saves coding.
- **Easy to modify** If any part (tile) is modified, we don't need to change many pages.
- **Easy to remove** If any part (tile) of the page is removed, we don't need to remove the code from all the pages. We can remove the tile from our layout manager page.



Layout of a webpage

## Steps to create tiles application

The steps are as follows:

1. **Add tiles library in your application**
2. **Define Struts2TilesListener in web.xml file**
3. **Create the input page (index.jsp)**
4. **Create the Action class**
5. **Extend the tiles-default package in your package and define all the result type as tiles in struts.xml file**
6. **Create the tiles.xml file and define all the tiles definitions**
7. **Create the LayoutManager page**
8. **Create the View components**

### 1) Add tiles library in your application

### 2) Define Struts2TilesListener in web.xml file

Provide entry of listener class Struts2TilesListener in the web.xml file.

### 3) Create the input page (index.jsp)

**index.jsp**

#### **4) Create the action class**

This action class contains one field name and defines the execute method.

#### **5) Inherit the tiles-default package and define all the result type as tiles in struts.xml**

This xml file defines one package with one action and two results.

#### **6) Create the tiles.xml file and define all the tiles definitions**

The tiles.xml file must be located inside the WEB-INF directory.

#### **7) Create the LayoutManager page**

It is the layout manager page. It used getAsString tag of tiles to include the string resource and insertAttribute tag of tiles to include the page resource.

#### **8) Create View components**

There are many view components such as header.jsp, footer.jsp, welcome.jsp etc.