



RichFaces

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About the Tutorial

RichFaces is a component library developed by JBoss, which provides in-built AJAX support to JSF application. It reduces all the redundant codes that the developer has to write to create different markup in the browsers.

Audience

This tutorial has been prepared for the beginners to help them understand the basics of RichFaces Technology. After completing this tutorial, you will find yourself at a moderate level of expertise, from where you can take yourself to the next levels.

Prerequisites

Before proceeding with this tutorial, you should have a basic understanding of Java programming language, text editor, execution of programs, etc. Since we are going to develop web-based applications using RichFaces, it will be a plus if you have an understanding of other web technologies such as HTML, CSS, AJAX, JavaScript, and JSF.

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1. RichFaces - Overview

RichFaces is an open source component library for JSF technology. It is developed and designed by JBoss. RichFaces provides reusable markups and AJAX capabilities to a JSF developer without having any prior knowledge of front end. RichFaces was developed over JSF 2, hence it follows the same life cycle of JSF. The in-built AJAX support and customizable look and feel features has enabled a new horizon for Enterprise Java application.

Advantages and Disadvantages

Following are a few **advantages** of using RichFaces.

AJAX support: RichFaces eliminates the old boilerplate AJAX, JavaScript codes to include markups in the webpages. Using RichFaces, a developer can include markups on-the-fly without having any prior knowledge of AJAX.

Component Development Kit (CDK): As described earlier, the developer need not concentrate on the markups used in the application, all they need to include is RichFaces tags to use those functionalities. This automatic creation of markups will be done by a runtime environment called CDK.

Resource handling: RichFaces provides additional support to create different binary files such as image, excel, spreadsheet, etc.

Skinning: Skinning is a modern approach that has been introduced in JSF, which makes it very easy to control the look and feel of the application. Specially-centralized color management using different other customizable parameters make it very handy for a developer.

Following are a few **disadvantages** of using RichFaces.

Resource: This being a fairly new technology, getting good quality resource is a huge problem for rich face developer.

Complex: Transition through different phases and creation of dynamic markups is the entire responsibility of CDK. Understanding internal processing of CDK is a bit complex and confusing for a traditional front-end developer.

2. RichFaces - Environment Setup

In this chapter, you will set up our development environment and configure your system such that you can proceed with RichFaces development.

Technical Requirements

As per the technical requirement you will learn how to configure JDK, Application server, or any IDE of your choice.

System Requirements

You can use any running system, there is no any restriction on memory, RAM and operating system.

JDK Installation

Before proceeding further, you must have JDK configured on your system. Please refer to the official website of [oracle](http://www.oracle.com) to download and install JDK 7 or an above version. You might have to set the environment variable for Java such that it can work properly. To verify your installation in Windows operating system, hit "java -version" in the command prompt and as an output it will show you the Java version installed in your system.

IDE Installation

There are numbers of IDE available on the Internet. You can use any as you choose. For this tutorial, let us use NetBeans 8.2. You can find the download link of different IDE in the following table.

IDE Name	Installation Link
NetBeans	https://netbeans.org/downloads/
Eclipse	https://www.eclipse.org/downloads/
IntelliJ	https://www.jetbrains.com/idea/download/#section=windows

It is always recommended to use a recent software version to drag out maximum facility from it. For this tutorial, we will be using NetBeans IDE 8.2 along with JDK 8.

Server Requirements

As an application server, you will be using Tomcat. In this chapter, you will configure the tomcat server in the system. If you are installing the latest version of NetBeans, then you can directly install Apache Tomcat along with NetBeans IDE. If you are not doing so, please download the latest version of Tomcat from the official website of the [TOMCAT](http://tomcat.apache.org). Keep the extracted Tomcat files in your C drive or program files. These files will be used in the next phase.

Client Requirements

RichFaces is a UI component. Thus, like every UI component, the internet browser will act as a client for your application. You can use any modern internet browser such as IE, Safari, Chrome, etc.

Development Requirements

Downloading required jars: Please visit the official website of [JBoss](#) and download the latest stable release of the JBoss jar files. Extract the files. You will need the following jars in order to develop RichFaces Application.

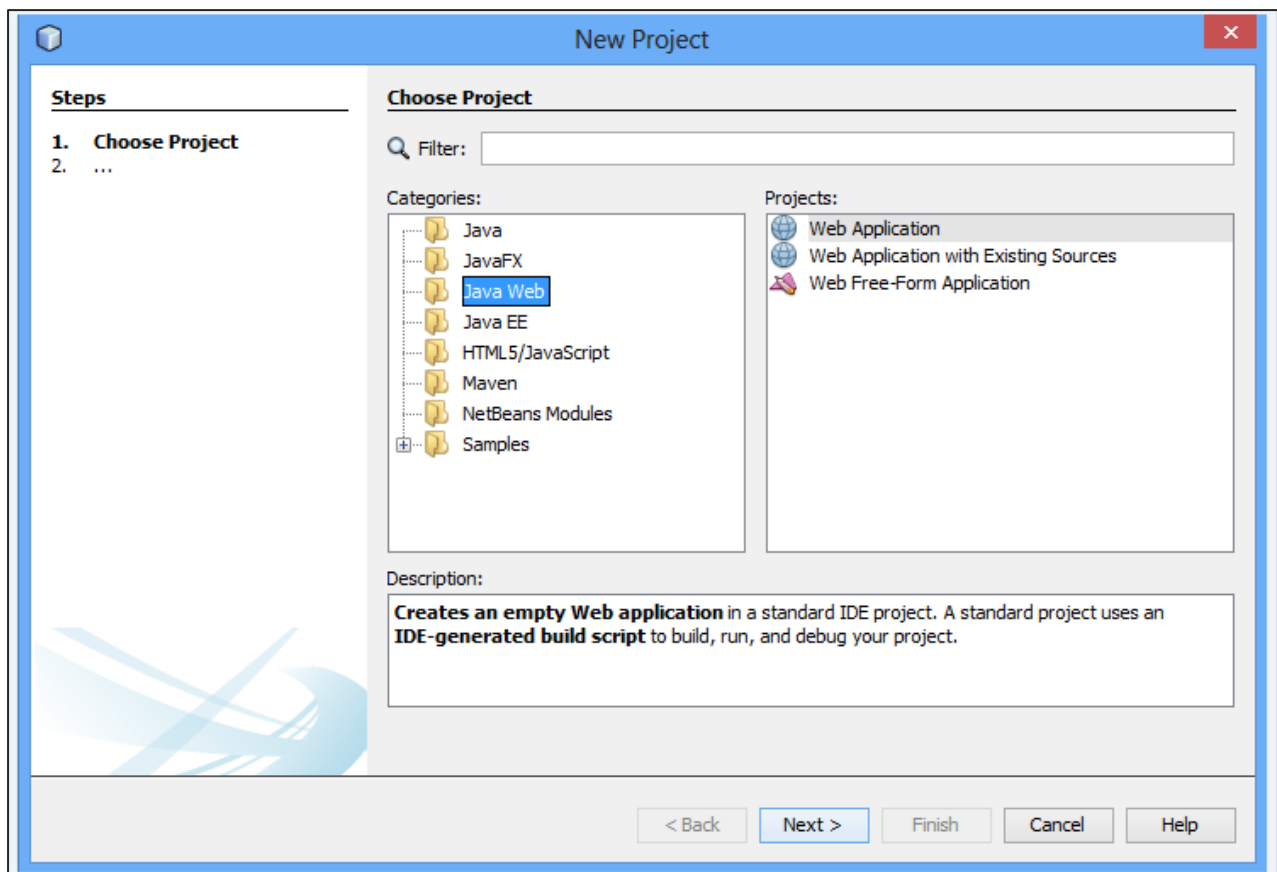
- richfaces-a4j-4.5.17.Final.jar
- richfaces-core-4.5.17.Final.jar
- richfaces-rich-4.5.17.Final.jar
- cssparser-0.9.18.jar
- guava-19.0.jar
- sac-1.3.jar

Creating a Project

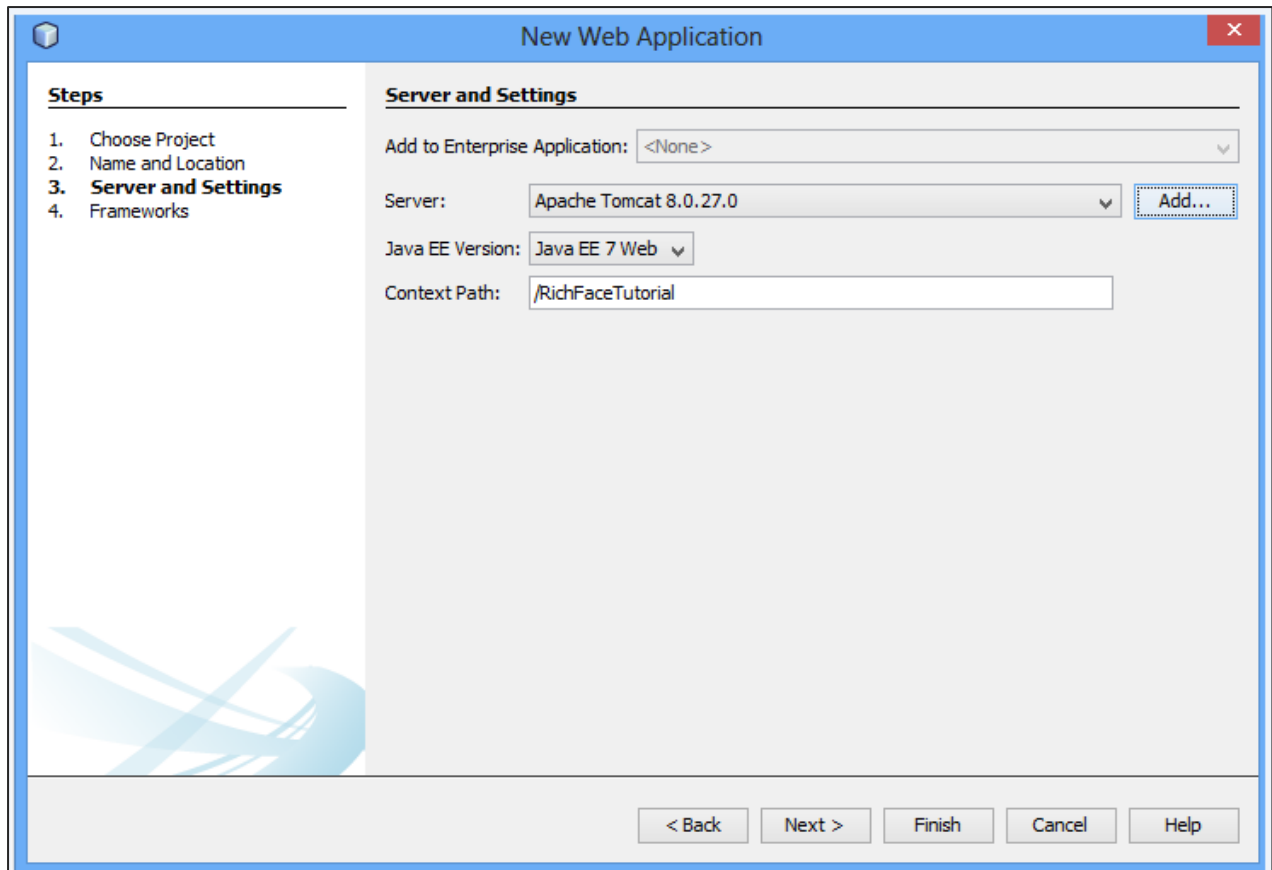
In this section, let us create a demo application that will be used later to learn more about RichFaces. Before proceeding further, it is highly recommended that you download and install all required software and jar files mentioned earlier.

Step 1: Open NetBeans IDE. Go to File -> New Project. You will be redirected to the following screenshot.

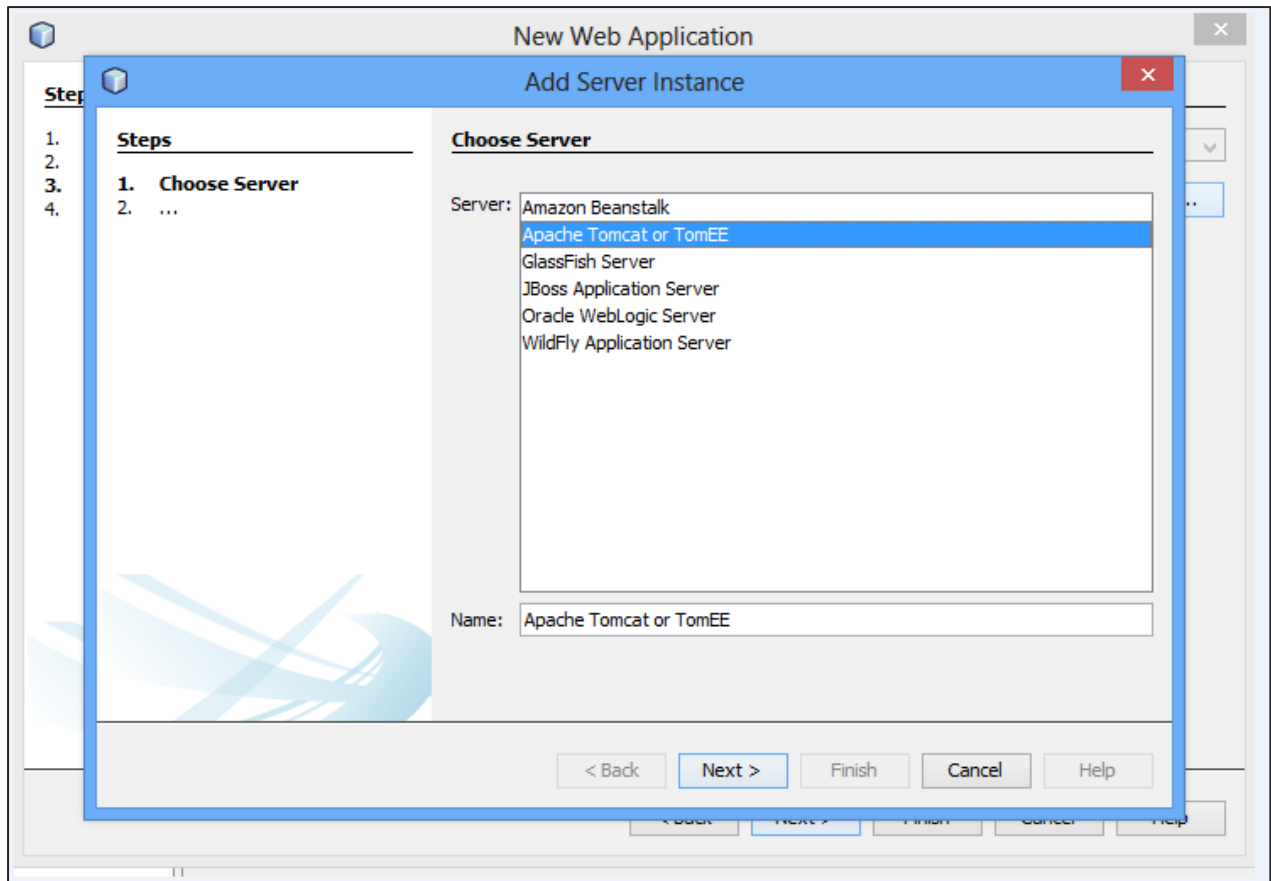
Step 2: Select "Java Web" and "Web Application" in "Categories" and "Projects" tab respectively and hit "Next".



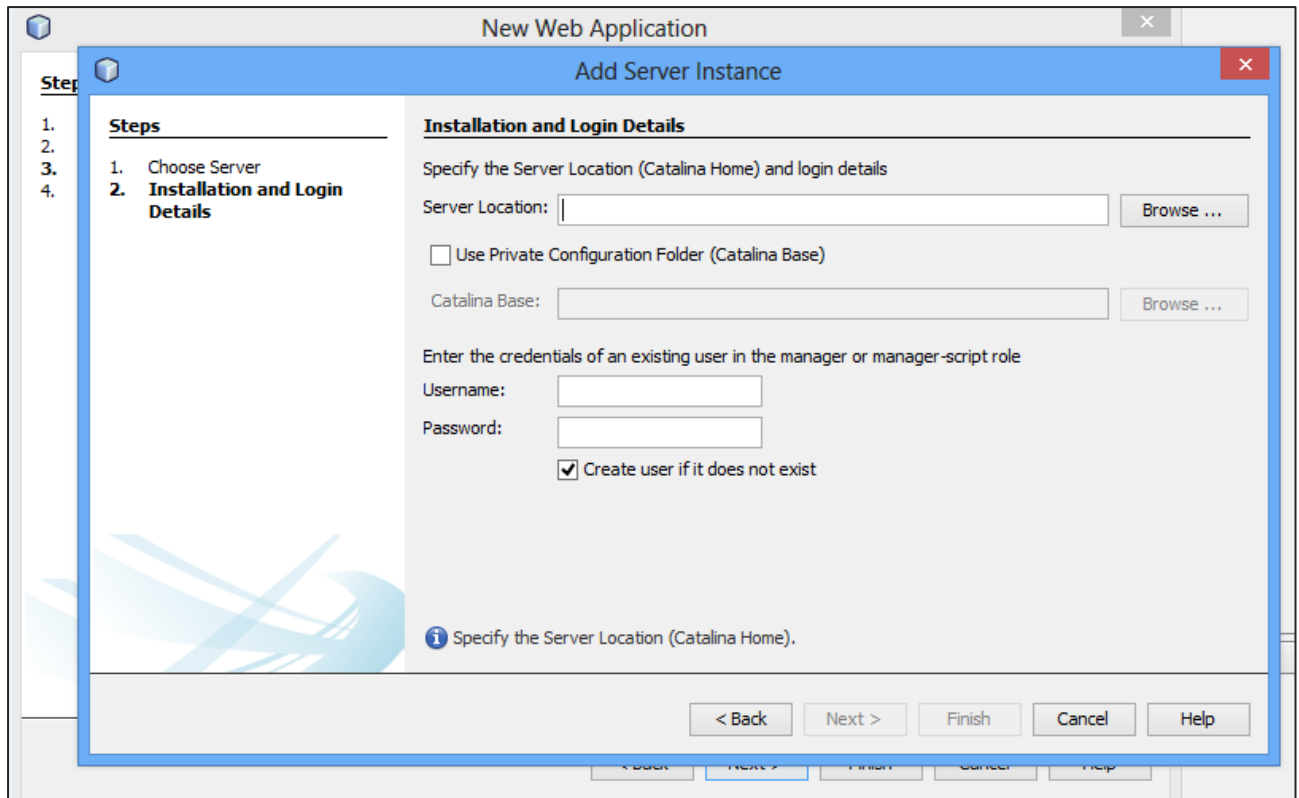
Step 3: In the next tab, you have to provide a project name. Here, let us name it as "RichFaceTutorial". Then, hit "Next". You will be redirected to the following screenshot. where you will be setting up server details.



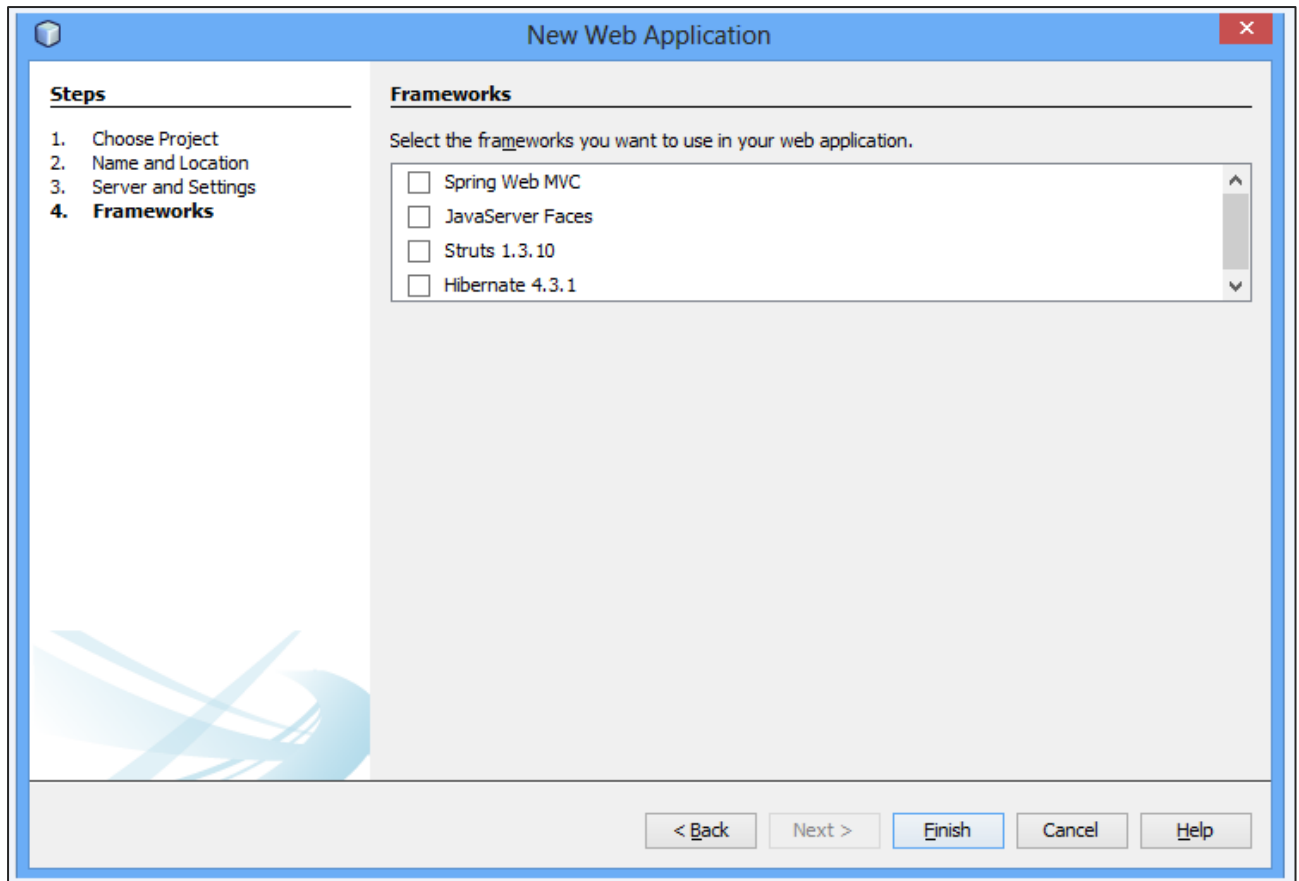
Step 4: Select "Apache Tomcat" from the dropdown and hit "Add". Once you hit "Add", you will be redirected to a separate screen, where you need to configure your server. To configure the server, you will need the server files downloaded in the previous section.



Step 5: Select "Apache Tomcat or TomEE" from the list as shown in the above screenshot and hit "Next". You will be redirected to the following screen.

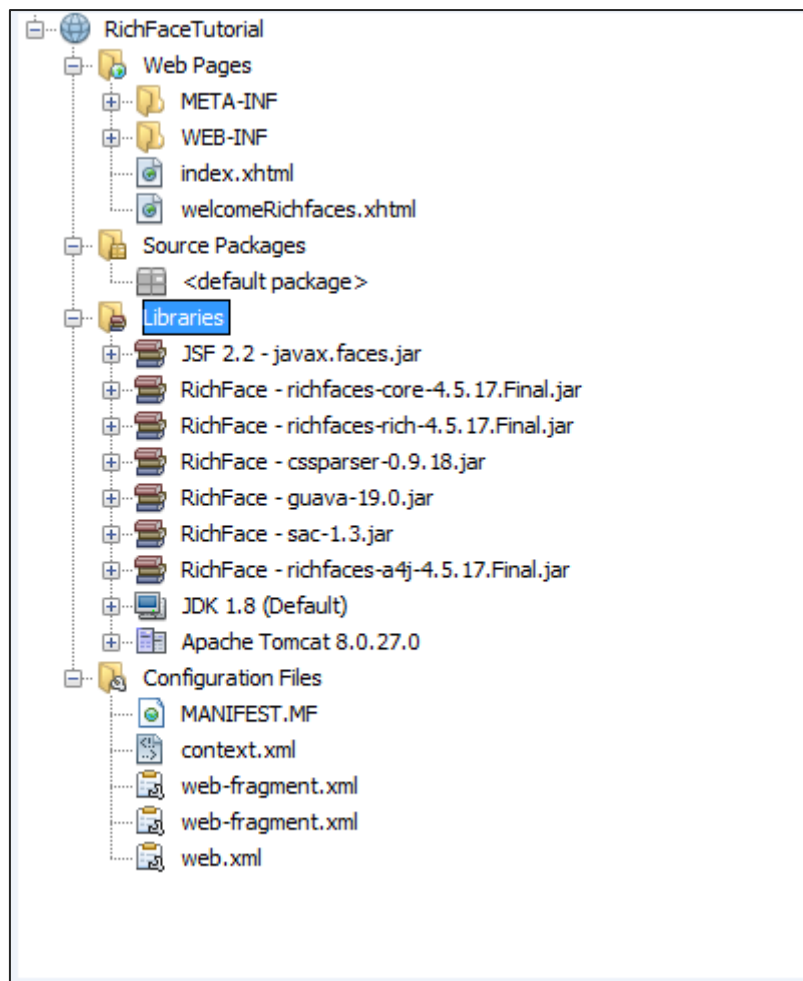


Step 6: In the Server location, you need to provide the downloaded Tomcat files location. Hit "Browse" and navigate to the required folder path and hit "Finish". Once your server is added successfully, you will be redirected to the first screen. Hit "Next" and you will get a chance to select the different frameworks to add into the application as shown in the following screenshot.

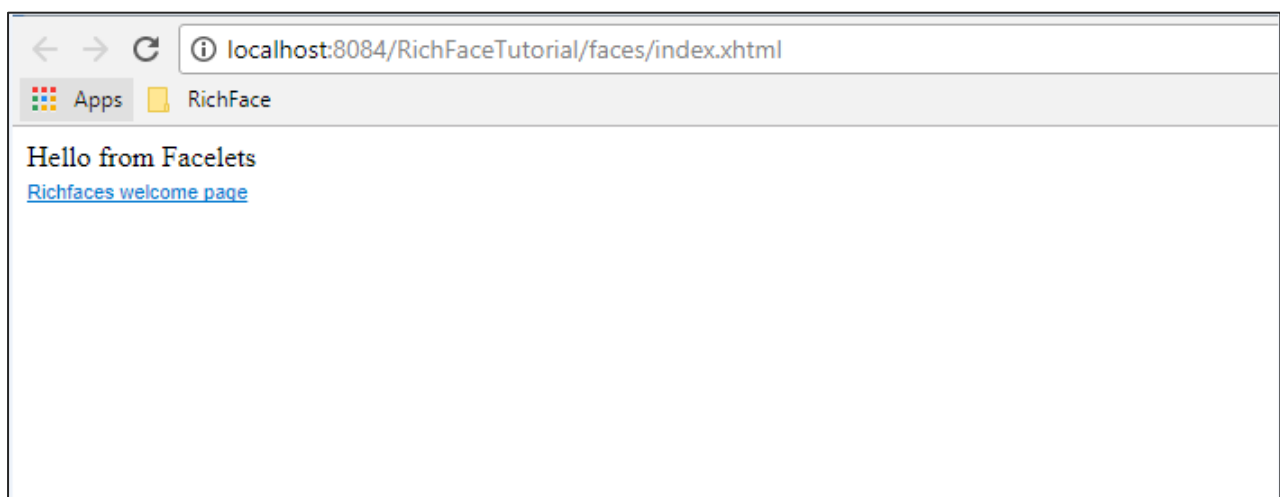


Step 7: Select "JavaServer Faces" and in "JavaServer Faces Configuration" you have to select "RichFaces" and hit "Finish".

If you do not get "RichFaces" as an option, you can add the required jars file from the build path. After this step, your application is ready to deploy on the application server. Following is the project directory structure of the application after completing all the above-mentioned steps.



Step 8: Go ahead and left-click the "index.xhtml " file and run the file. You will see the following output in the browser.



In real-life application, you might have to generate the required war file and deploy in the application server, as all the pages will be interlinked.

However, for this tutorial we will be running the application page wise as we need to show different features of different tags.

End of ebook preview

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