

Beginning JSF™ 2 APIs and JBoss® Seam



Kent Ka lok Tong

Beginning JSF™ 2 APIs and JBoss® Seam

Copyright © 2009 by Kent Ka lok Tong

All rights reserved. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without the prior written permission of the copyright owner and the publisher.

ISBN-13 (pbk): 978-1-4302-1922-4

ISBN-13 (electronic): 978-1-4302-1923-1

Printed and bound in the United States of America 9 8 7 6 5 4 3 2 1

Trademarked names may appear in this book. Rather than use a trademark symbol with every occurrence of a trademarked name, we use the names only in an editorial fashion and to the benefit of the trademark owner, with no intention of infringement of the trademark.

Java™ and all Java-based marks are trademarks or registered trademarks of Sun Microsystems, Inc., in the US and other countries. Apress, Inc., is not affiliated with Sun Microsystems, Inc., and this book was written without endorsement from Sun Microsystems, Inc.

Lead Editors: Steve Anglin, Matt Moodie

Technical Reviewer: Jim Farley

Editorial Board: Clay Andres, Steve Anglin, Mark Beckner, Ewan Buckingham, Tony Campbell, Gary Cornell, Jonathan Gennick, Michelle Lowman, Matthew Moodie, Jeffrey Pepper, Frank Pohlmann, Ben Renow-Clarke, Dominic Shakeshaft, Matt Wade, Tom Welsh

Project Manager: Sofia Marchant

Copy Editors: Kim Wimpsett and Heather Lang

Associate Production Director: Kari Brooks-Copony

Production Editor: Ellie Fountain

Compositor and Artist: Kinetic Publishing Services, LLC

Proofreader: Patrick Vincent

Indexer: Toma Mulligan

Cover Designer: Kurt Krames

Manufacturing Director: Tom Debolski

Distributed to the book trade worldwide by Springer-Verlag New York, Inc., 233 Spring Street, 6th Floor, New York, NY 10013. Phone 1-800-SPRINGER, fax 201-348-4505, e-mail orders-ny@springer-sbm.com, or visit <http://www.springeronline.com>.

For information on translations, please contact Apress directly at 2855 Telegraph Avenue, Suite 600, Berkeley, CA 94705. Phone 510-549-5930, fax 510-549-5939, e-mail info@apress.com, or visit <http://www.apress.com>.

Apress and friends of ED books may be purchased in bulk for academic, corporate, or promotional use. eBook versions and licenses are also available for most titles. For more information, reference our Special Bulk Sales—eBook Licensing web page at <http://www.apress.com/info/bulksales>.

The information in this book is distributed on an “as is” basis, without warranty. Although every precaution has been taken in the preparation of this work, neither the author(s) nor Apress shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the information contained in this work.

The source code for this book is available to readers at <http://www.apress.com>. You will need to answer questions pertaining to this book in order to successfully download the code.

Contents

About the Author	ix
About the Technical Reviewer	xi

CHAPTER 1	Getting Started with JSF	1
	Introducing the “Hello world” Application	1
	Installing Eclipse	2
	Installing JBoss	3
	Installing a JSF Implementation	7
	Installing Web Beans	8
	Creating the “Hello world!” Application with JSF	9
	Generating Dynamic Content	17
	Retrieving Data from Java Code	20
	Exploring the Life Cycle of the Web Bean	25
	Using an Easier Way to Output Text	25
	Debugging a JSF Application	25
	Summary	27

CHAPTER 2	Using Forms	29
	Developing a Stock Quote Application	29
	Getting the Stock Quote Symbol	29
	Displaying the Result Page	36
	Displaying the Stock Value	38
	Marking Input As Required	40
	Inputting a Date	49
	Conversion Errors and Empty Input	55
	Using a Combo Box	60
	Using a Single b2 Bean	62
	Hooking Up the Web Beans	63
	Summary	66

CHAPTER 3	Validating Input	67
	Developing a Postage Calculator	67
	What If the Input Is Invalid?	73
	Null Input and Validators	78
	Validating the Patron Code	80
	Creating a Custom Validator for the Patron Code	82
	Displaying the Error Messages in Red	86
	Displaying the Error Message Along with the Field	87
	Validating a Combination of Multiple Input Values	96
	Summary	100
 CHAPTER 4	 Creating an E-shop	 101
	Listing the Products	102
	Making the Link to Show the Details	106
	Displaying Headers in the Columns	115
	Implementing a Shopping Cart	116
	Displaying the Content of the Shopping Cart	126
	The Checkout Function	127
	Getting the Credit Card Number of the Current User	131
	Forcing the User to Log In	139
	Implementing Logout	146
	Protecting the Password	148
	Summary	149
 CHAPTER 5	 Creating Custom Components	 151
	Displaying a Copyright Notice on Multiple Pages	151
	Allowing the Caller to Specify the Company Name	157
	Creating a Product Editor	159
	Passing a Method in a Parameter?	162
	Creating a Box Component	163
	Accepting Two Pieces of XHTML Code	166
	Creating a Reusable Component Library	168
	Creating a Component Library Without taglib.xml	170
	Summary	172

CHAPTER 6	Providing a Common Layout for Your Pages	173
	Using the Same Menu on Different Pages	173
	Using Global Navigation Rules	177
	Using Two Abstract Parts	178
	Creating Page-Specific Navigation Cases	180
	Summary	182
CHAPTER 7	Building Interactive Pages with Ajax	183
	Displaying a FAQ	183
	Refreshing the Answer Only	185
	Hiding and Showing the Answer	189
	Using Ajax to Hide or Show the Answer	191
	Giving a Rating to a Question	194
	Updating the Rating as the User Types	199
	Using a Dialog Box to Get the Rating	200
	Setting the Look and Feel with Skins	204
	Displaying Multiple Questions	206
	Summary	212
CHAPTER 8	Using Conversations	215
	Creating a Wizard to Submit Support Tickets	215
	Interference Between Browser Windows	219
	URL Mismatched?	225
	Summary	229
CHAPTER 9	Supporting Other Languages	231
	Displaying the Current Date and Time	231
	Supporting Chinese	232
	Easier Way to Access Map Elements	237
	Internationalizing the Date Display	238
	Letting the User Change the Language Used	238
	Localizing the Full Stop	243
	Displaying a Logo	246
	Making the Locale Change Persistent	248
	Localizing Validation Messages	250
	Summary	251

CHAPTER 10	Using JBoss Seam	253
	Installing Seam.....	253
	Re-creating the E-shop Project.....	254
	Allowing the User to Add Products.....	257
	Restricting Access to the Product-Editing Page.....	265
	Creating a Shopping Cart.....	267
	Turning the Shopping Cart into a Stateful Session Bean	273
	Creating the Checkout Page	277
	Using WebLogic, WebSphere, or GlassFish.....	284
	Summary.....	284
INDEX		287