

Simply Lift

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Part I

The Lift Web Framework

Chapter 1

Introduction

The Lift Web Framework provides web application developers tools to make writing security, interacting, scalable web applications easier than with any other web framework. After reading Part I of this book, you should understand Lift's core concepts and be able to write Lift applications. But with anything, practice is important. I have been writing Lift and Scala for 4 years, and even I learn new things about the language and the framework on a weekly basis. Please consider Lift an path and an exploration, rather than an end point.

"Yo, David, stop yer yappin'. I'm coming from Rails|Spring|Struts|Django and I want to get started super fast with Lift." See From MVC ([13 on page 111](#)).

Lift is built on top of the [Scala](#) programming language. Scala runs on the [Java Virtual Machine](#). Lift applications are typically packaged as [WAR](#) files and run as a [J/EE Servlets](#) or Servlet Filters. This book will provide you with the core concepts you need to successfully write Lift web applications. The book assumes knowledge of Servlets and Servlet containers, the Scala Language (Chapters 1-6 of [Beginning Scala](#) gives you a good grounding in the language), build tools, program editors, web development including HTML and JavaScript, etc. Further, this book will not explore persistence. Lift has additional modules for persisting to relational and non-relational data stores. Lift doesn't distinguish as to how an object is materialized into the address space... Lift can treat any object any old way you want. There are many resources (including [Exploring Lift](#)) that cover ways to persist data from a JVM.

Lift is different from most web frameworks and it's likely that Lift's differences will present a challenge and a friction if you are familiar with the MVC school of web frameworks¹. But Lift is different and Lift's differences give you more power to create interactive applications. Lift's differences lead to more concise web applications. Lift's differences result in more secure and scalable applications. Lift's differences let you be more productive and make maintaining applications easier for the future you or whoever is writing your applications. Please relax and work to understand Lift's differences... and see how you can make best use of Lift's features to build your web applications.

Lift creates abstractions that allow easier expression of business logic and then maps those abstractions to HTTP and HTML. This approach differs from traditional web frameworks which build abstractions on top of HTTP and HTML and require the developer to bridge between common business logic patterns and the underlying protocol. The difference means that you spend more time thinking about your application and less time thinking about the plumbing.

¹This includes Ruby on Rails, Struts, Java Server Faces, Django, TurboGears, etc.

I am a “concept learner.” I learn concepts and then apply them over and over again as situations come up. This book focuses a lot on the concepts. If you’re a concept learner and like my stream on conciousness style, this book will likely suit you well. On the other hand, it may not.

Up to date versions of this book are available in PDF form at http://simply.liftweb.net/Simply_Lift.pdf. The source code for this book is available at https://github.com/dpp/simply_lift.

If you’ve got questions, feedback, or improvements to this document, please join the conversation on the [Lift Google Group](#).

I’m a “roll up your sleeves and get your hands dirty with code” kinda guy... so let’s build a simple Chat application in Lift. This application will allow us to demonstrate some of Lift’s core features as well as giving a “smack in the face” demonstration of how Lift is different.

Chapter 2

The ubiquitous Chat app

Writing a multi-user chat application in Lift is super-simple and illustrates many of Lift's core concepts.

The Source Code can be found at https://github.com/dpp/simply_lift/tree/master/chat.

2.1 The View

When writing a Lift app, it's often best to start off with the user interface... build what the user will see and then add behavior to the HTML page. So, let's look at the Lift template that will make up our chat application.

Listing 2.1: index.html

```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
2     "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3 <html xmlns="http://www.w3.org/1999/xhtml">
4   <head><title>Home</title></head>
5   <body class="lift:content_id=main">
6     <div id="main" class="lift:surround?with=default;at=content">
7       <!-- the behavior of the div -->
8       <div class="lift:comet?type=Chat">
9         Some chat messages
10        <ul>
11          <li>A message</li>
12          <li class="clearable">Another message</li>
13          <li class="clearable">A third message</li>
14        </ul>
15      </div>
16
17      <div>
18        <form class="lift:form.ajax">
19          <input class="lift:ChatIn" id="chat_in"/>
20          <input type="submit" value="Say Something"/>
21        </form>
22      </div>
23    </div>
```

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