Spiral Development of Dynamic Web Applications: Using Modelibra and Wicket

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Preface

This book provides an overview of Modelibra, the open source software family that is used to develop dynamic web applications based on domain models. The software family consists of a graphical design tool, a domain model framework, a web component framework, and code generators. Modelibra facilitates the definition and the use of domain models in Java. It uses Wicket for application views of a domain model. Wicket is a web framework that provides web components to construct, in an object oriented way, web concepts, such as web pages and page sections. Modelibra interprets the application model and creates default web pages based on the model. A default application may help developers validate and consequently refine the domain model. In addition, Modelibra has a collection of generic web components that may be easily reused in professional web applications to display or update entities. Some generic web components are developed in Ajax. Ajax is a collection of technologies used to create interactive web pages that resemble window widgets on personal computers.

A development process is a crucial subject in software engineering and information systems. There are many books on software development techniques and methodologies, but it is rare to see a development history of a software project. In this book, the spiral approach to software development, which preserves a project history as a series of code snapshots, is used and a simple web application is developed in multiple spirals. For each spiral, there is a complete software application and a chapter explaining the spiral. The last spirals present professional looking web applications that would be difficult to explain without first introducing simple concepts and basic programming solutions.

In computer terms, a domain model is a model of specific domain classes that describe the core data and their behaviour. The heart of any software is a domain model. When a model is well designed and when it can be easily represented and managed in an object oriented language, a developer may focus on views of the software and they are what users care about the most. This book is for Java developers that want to learn more about developing web applications based on a domain model. In particular, this book is for Java developers that are interested in Wicket. With Wicket there is a hope that web applications will be developed in an object oriented way as most modern software is.

Dzenan Ridjanovic, in Québec 2007-12-31

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Developing a family of software is a challenging task. Writting a book on software that has been constantly improving is time consuming. When both activities are combined in the same working schedule, the author must have the moral support of his family. I am grateful to my wife Amra for her understang of my long hours in front of a computer.