Chapter 3.8
A Development Environment for Customer–Oriented Web Business

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INTRODUCTION

Web business can help companies strengthen the links between customers and suppliers. Under this environment, individual customers are getting much smarter and their needs are changing much faster than ever before. The customers can compare products and services with a variety of rich information provided from Web business systems, so that they can easily move to new products or services. Accordingly, many companies have conceived Web business systems to individual customers as a critical instrument for their business success and so have made a lot of efforts to develop and maintain them.

The implementation of Web business systems is complex and multidisciplinary. It requires several steps, such as information modeling for customers, navigation design for helping customers find information, user interface design for Web page layout, and actual implementation. To help develop Web business systems in a systematic fashion, many methodologies have been proposed (Lee, Suh, & Lee, 2004). The methodologies have their own advantages but are not powerful in overcoming the challenge of proper alignment of customers' needs with the business systems. From this perspective, recently, we provided a methodology to help develop and improve the customer-oriented Web applications (Lee et al.). However, looking at the speed of change in the Web business environment, it is becoming more difficult to employ the methodology without an automated support environment. Therefore, this

article presents an environment, called *eBizBench,* for the effective development and maintenance of customer-oriented Web business systems.

This article first discusses the previous development environments for Web business systems in a background section. Then as a main trust of this article, the architecture of the eBizBench along with its screen examples is presented, and the eBizBench is compared with other development environments. Finally, this article discusses future trends and makes a conclusion.

BACKGROUND

Currently, in constructing Web business systems developers tend to pay little attention to requirements elicitation, requirements analysis, or reus-

ability (Taylor, McWilliam, Forsyth, & Wade, 2002). They may use ad hoc tools that depend on their expertise or experience. However, this ad hoc development of Web business system without any rigorous development environment may cause Web crises such as delayed schedule, exceeded budget, and poor quality (Ginige & Murugesan, 2001).

To help develop Web business systems in a robust and coherent fashion, several development environments have been proposed. These development environments can strengthen the quality of the resulting Web business. They can be categorized into two types: implementation-oriented or integrated. The implementation-oriented environments focus on the generation of database and Web pages rather than conceptual design. They include WebDesigner (Bichler & Nusser,

Figure 1. Architecture of the eBizBench
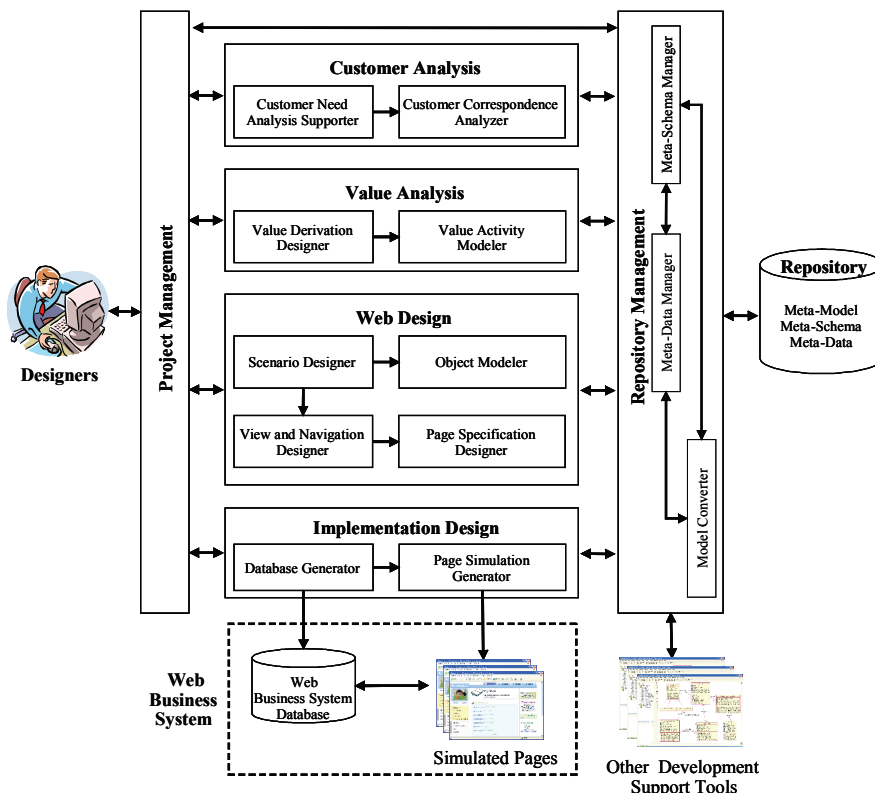
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