Salespoint 2011

Technical Overview

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1 Introduction

The Salespoint Framework is intended to minimize developing effort of e-commerce solutions and point-of-sale applications. Salespoint 2010 users complained about complexity, missing features and bugs. Thus, the decision was made to re-design and re-implement the framework from scratch. Our development goal was an easy-to-use framework primarily targeted for educational purposes. As such, Salespoint 2011 is not taylored to any specific application, but designed with a wide area of applications in mind.

Models and design patterns employed in Salespoint 2011 are inspired by "Enterprise Patterns and MDA: Building Better Software with Archetype Patterns and UML" [AN03] by Jim Arlow. An overview over the functionality of and new features in Salespoint 2011 is detailed in this document.

We would like to thank all Salespoint users who submitted their feedback and encourage future users of Salespoint 2011 to do the same.

2 Technical Background

In this chapter we want to give a short overview about the APIs and Frameworks used by Salespoint 2011.

2.1 Persistence

The persistence layer was one of the biggest problems in Salespoint 2010. We wanted a solution that acknowledges latitudes for persisting objects with relatively low effort.

Therefore and because of the huge community support, we decided to use the Java Persistence API (JPA). JPA is a Java Programming Language Framework managing relational data in applications. The API itself is defined in the javax.persistence package.

Some of the most popular vendors of JPA are Hibernate and EclipseLink. For developing Salespoint 2011 we used JPA 2.0 with EclipseLink without vendor specific functionality. So it should also be possible to use other JPA 2.0 vendors like Hibernate with this framework.

2.2 Joda-Time

Joda-Time is a Java date and time API. It provides a quality replacement for the Java date and time classes. We used this API because the Java Date and Calendar classes are badly designed. Furthermore Joda-Time is very easy to use and provide functionality to handle Java Date and Calendar.

2.3 Spring

Salespoint 2011 is mainly designed to develop Web- and Serverapplications. Therefore the framework provides basic MVC and tag functionality for login and capability management. To make the Web-Functionality easier to handle we used the Spring-Framework and included the core into Salespoint 2011.

3 Salespoint 2011 Core

This chapter overviews the core functionality of Salespoint 2011 and gives a short introduction.

3.1 Package Overview

The following diagram shows the most important packages of the Salespoint 2011 and their dependencies. These packages are detailed in the chapters below.

3.2 Shop

3.3 User

3.4 Calendar

3.5 Money

3.6 Product

3.7 Catalog

3.8 Inventory

3.9 Accountancy

3.10 Order

Bibliography

[AN03] Jim Arlow and Ila Neustadt. *Enterprise Patterns and MDA: Building Better Software with Archetype Patterns and UML*. Addison-Wesley, 2003.