

Building a J2EE-based Quick Car Rental application

Overview

This example implements a J2EE application for renting cars. The user should be able to choose the type of car, pickup and drop off points, and the start and end of the rental period using a Web browser. Finally, he or she should be able to make a new booking or cancel existing bookings. In addition, he or she should be able to display an overview of all active bookings.

The data model of this car rental application is based on only one table that can record the reservation data. For accesses to table data, a **container-managed persistence** entity bean is defined in the EJB module project. The implementation of the application's business logic (creating a booking, displaying all available bookings, canceling a booking) is implemented in a stateless session bean. To realize the Web client, a JSP and a servlet are available in the Web module project. The JSP is responsible for displaying the view in the Web client, while the servlet is needed to pass the data to the JSP in a suitable form and to address the session bean with the requests from the JSP. All additional auxiliary classes are stored externally in a separate Java project.

Based on the session bean implementation a Web service named QuickCarRentalService is defined, so that external applications (Web service clients) are able to use the car rental functions.

Project Names:

J2EE Projects: J2EE_QuickCarRentalEjb, J2EE_QuickCarRentalWeb, J2EE_QuickCarRentalEar

Dictionary Project: QuickCarRentalDictionary

Java Project: Helperclasses

Requirements and Dependencies

Only between the above-named projects

Instructions

To get the Quick Car Rental application running, proceed as follows:

- a. Unzip the complete contents of the zip file "J2EE_QuickCarRental.zip" from the Developer Studio example folder ".../SAP/JDT/eclipse/examples/" into your local workspace directory or folder of your choice.
 - b. Start the SAP NetWeaver Developer Studio.
 - c. Open the J2EE perspective ("Window"|"Open Perspective"|..."J2EE Development") and choose "File"|"Import".
 - d. Select "Multiple Existing Project into Workspace " and choose "Next".
 - e. In the input field "Select base folder", specify the folder containing the examples. To do this, choose "Browse" and select the examples folder.
 - f. In the list that appears, select J2EE_QuickCarRentalEjb, J2EE_QuickCarRentalWeb, J2EE_QuickCarRentalEar, QuickCarRentalDictionary, Helperclasses and activate the option "Open Projects after import".
 - g. Choose "Finish".
 - h. Open the "J2EE Explorer" view to display the logical structure of the imported J2EE projects.
2. Deploying the SDA
 - a. Make sure that your SAP J2EE Engine and the Software Deployment Manager are running.

- b. Open the Dictionary perspective ("Window"|"Open Perspective"|..."Dictionary").
 - c. In the "Dictionary Explorer", select the project node "QuickCarRentalDictionary".
 - d. Open the context menu and choose "Deploy".
- The table "QCR_RESERVATION" will be created on the database instance.
- 3. Deploying the EAR
 - a. In the J2EE Explorer, expand the project tree "J2EE_QuickCarRentalEar".
 - b. Choose "J2EE_QuickCarRentalEar.ear", open the context menu and choose "Deploy to J2EE engine ".
- 4. Running the Quick Car Rental application
 - a. Insert the following URL into the Web Browser:
http://<host>:<port>/QuickCarRental (for example:
http://localhost:50000/QuickCarRental)

Corresponding Tutorial:

SAP Web AS for J2EE Applications → Development Manual → Getting Started → Creating a J2EE-Based Car Rental Application.

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