Protecting Access to the Web Dynpro Car Rental Application Using UME Permissions

Overview

This sample project demonstrates the use of access protection using authentication and User Management Engine (UME) permissions with the Web Dynpro car rental application that is provided with the SAP NetWeaver Developer Studio. In the application, Web Dynpro application serves as the frontend client. The business logic is implemented as EJBs whose methods are available as a Web service. Authentication is specified to protect access to the application as a whole, and UME permssions are used to protect access to the EJBs. Both the authentiation protection and the use of UME permissions are done programmatically.

Importing the initial project and working through the written tutorial results in the finished project.
Note that if you import the finished project, then you still have to perform the administrative tasks in order to run and test the finished application.

Project Names:

Web Dynpro Project: TutWD_CarRental
J2EE Projects: J2EE_QuickCarRentalEjb, J2EE_QuickCarRentalWeb, J2EE_QuickCarRentalEar
Dictionary Project: QuickCarRentalDictionary
Java Project: Helperclasses

Initial Project:

TutWD_CarRental.zip (provided with the SAP Developer Studio)

Finished Projects:

Application: TutWD_CarRental_with_UME.zip
Actions: TutWD_CarRental_Actions.zip

Instructions

Importing the initial project is described in the written tutorial.

If you want to run and test the finished project, then proceed as follows:
1. Import the TutWD_CarRental_with_UME.zip project into the SAP NetWeaver Developer Studio.
   a. Unzip the complete contents of the project's Zip file into your workspace directory for the SAP NetWeaver Developer Studio.
   b. Start the SAP NetWeaver Developer Studio.
   c. Open the J2EE Developer perspective ("Window|Open Perspective|J2EE Development")
   d. Choose "File|Import".
   e. Select "Multiple Existing Project into Workspace" and choose "Next".
   f. In the input field "Project Content", specify the folder containing the project. To do this, choose "Browse" and select your workspace folder).
   g. Select all of the projects displayed. Also select "Open projects after import" and choose "Finish".
   h. Open the J2EE Explorer to display the logical structure of the imported J2EE projects.
   i. Switch to the Web Dynpro perpsective and choose the Web Dynpro Explorer to view the Web Dynpro projects.

2. Import the actions into the SAP NetWeaver Developer Studio.
   a. Unzip the TutWD_CarRental_Actions.zip project into your Development Component directory for local development (for example, "C:\Documents and Settings\<user>\.dtc\Local Development\DCs\sap.com").

   You can find the root location in the SAP NetWeaver Developer Studio Preferences under "Window|Preferences" → "Java Development Infrastructure → Development Configuration".

   b. In the SAP NetWeaver Developer Studio, choose "File|Import".
   c. Select "Multiple Existing Project into Workspace" and choose "Next".
   d. In the input field "Project Content", specify the folder containing the actions project. To do this, choose "Browse" and select the local development folder.
   e. Select the actions project; also select "Open projects after import" and choose "Finish".
   f. Open the Navigator to display the logical structure of the imported projects.

3. Deploy the dictionary SDA.
   a. Make sure that your 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", open the context menu and choose "Deploy".
      The table "QCR_RESERVATION" will be created on the database instance.

4. Deploy the EAR.
   a. Return to the J2EE Development perspective and the J2EE Explorer.
   b. Expand the project tree "J2EE_QuickCarRentalEar".
   c. Select "J2EE_QuickCarRentalEar.ear", open the context menu and choose "Deploy to J2EE engine".

5. Deploy the Web Dynpro application.
   a. Switch to the Web Dynpro perspective.
   b. Expand the project tree "TutWD_CarRental → WD → Applications".
   c. Select "CaRentalApp", open the context menu and choose "Deploy New Archive and Run".
      The application starts, however deploy the actions and perform the administrative steps before testing.

6. Deploy the actions archive.
   a. Switch to the Navigator.
   b. Expand the project tree "LocalDevelopment~WDActions~sap.com → gen → default → deploy".
   c. Select the "sap.com~WDActions~.sda" file, open the context menu and choose "Deploy".

7. Perform the administrative steps to prepare for testing.
   a. Create the HTTP destination on the J2EE Engine.
      This step is described in detail in the written tutorial (pages 27-28).
   b. Create the users on the J2EE Engine.
   c. Create the UME roles.
   d. Assign users to the roles.
      These steps are described in detail in the written tutorial (pages 48-53).

8. Run the Quick Car Rental application.
    a. In the Web Dynpro Explorer, choose "Run" from the context menu for the Web Dynpro application.

9. Test the application as described in the written tutorial (page 45).

Note: The optional steps from the written tutorial are not included in the finished project.

Corresponding Tutorial:

Application Platform (SAP Web Application Server) → Java Technology in SAP Web Application Server → Development Manual → Getting Started → Tutorials for Using Roles and Permissions in Applications → Protecting Access to the Web Dynpro Application Using UME permissions.

A print version of the tutorial is also available on SDN in the Security download area.

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