

Developing a Data Warehousing solution for government agency of Australia catering woolen industry...

Overview:

A government agency of Australia wants to develop a portal to provide real-time information about of their manufacturing sector called woolen industry which can help manufacturer to customize their homepage and get the information about the market in form of dashboards.

Challenge:

Challenge was to develop a Data warehousing solution for woolen market, which will be responsible for making available wool-related information through the deployment of web-based information solutions. The portal should have following features:

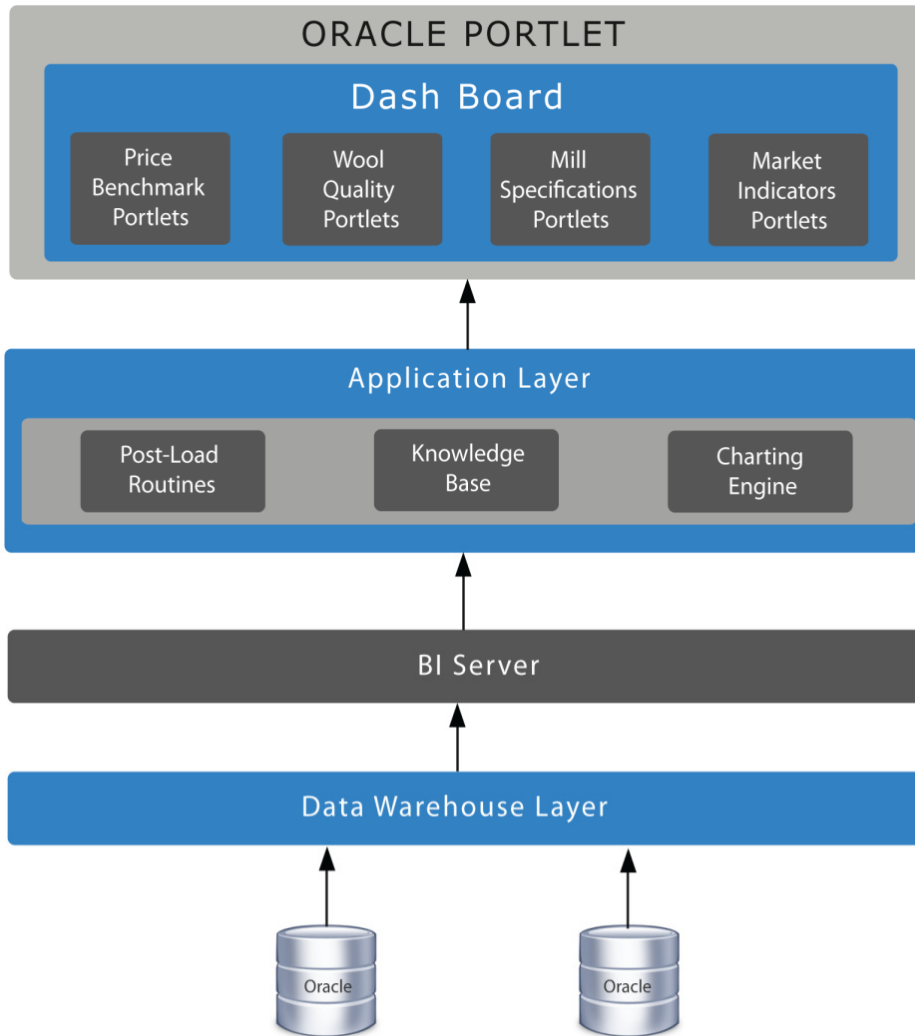
- A Price Benchmark Portlets (PBP) charts the historic selling price of wool lots. It provides the farmer with a mean to compare his/her prices against others
- The Wool Quality Portlets (WQP) charts the quality and quantity of wool sold over time. It serves wool buyers, producers and researchers
- The Mill Specifications Portlets (MSP) plots average price and supply charts for wool offered at auction. A Chinese version of this Portal was also developed, targeted at users in China
- The Market Indicators Portlets (MIP) plots a chart of Australian Wool Exchange market indicators and micron price guides

Solution:

The Wooldesk Portal is a Data Warehouse-like system. Sales data on wool are loaded onto an Oracle database on a weekly basis. Once loaded, post-load routines are invoked to cleanse the data and pre-calculate measure values. Calculations include percentiles and complex derivation formulae. Oracle Analytical functions were used for some of these calculations, for example, percentiles. The charts are rendered using Oracle Chart Builder and RChart, and deployed through Oracle Portal via Java Portlet Development Kit (JPDK). Since its initial development, the Aurora team has completed a number of significant enhancements to the application – including a Chinese version of the Portal, a custom-built security module and a number of support Portlets. Through the multi-level security module, users with higher access levels are provided with additional query options and information. In addition to the core information Portlets, a number of support Portlets were developed.

These are:

- User Registration & Authentication Portlet
- Help File Portlet
- Wool Glossary Portlet
- Wool Region Portlet
- User Administration Portlet



Environment: Linux, Oracle9i Server, ETL, BIRT, Oracle9i, Application Server, Oracle Container for J2EE (OC4J), Java Servlets, Java Server Pages (JSPs), Oracle Portal, Java Portlet, Development Kit (JPKD), Oracle Chart Builder, RChart, Netbeans, CVS, Ant, PL/SQL, Oracle Designer, Enterprise Architect.