NetWeaver-based Application for SAP Consulting

SAP Deutschland AG & CO. KG
NetWeaver SAP Consulting
Benjamin Herrmann
Hasso-Plattner Ring 7
69190 Walldorf
Tel.: +49 (0) 151 – 16810454
Fax: +49 (0) 62 27 78-47831
E-Mail: benjamin.herrmann@sap.com
Web: www.sap.com

Hochschule Heilbronn
Prof. Dr. Michael Gröschel
Studiengang Electronic Business
Max-Planck-Str. 39
D-74081 Heilbronn
Tel.: +49 (0) 7131 504 450
Fax: +49 (0) 7131 252470
Mobil: +49 (0) 176 969 10 862
E-Mail: groeschel@hs-heilbronn.de
Web: www.taxxas.com
Web: www.hs-heilbronn/eb

The project has been realized by a project team of seven students in summer semester 2009. They all study Electronic Business at Heilbronn University. From left to right: Torben Rasche (SAP), Benjamin Herrmann (SAP), Philipp Küller, Prof. Dr. Detlef Kreuz (Hochschule Heilbronn), Dominik Heere (SAP), Michael Spahr, Sören Wagner, Marc-Steffen Kaesz, Daniel Swazinna, Prof. Dr. Michael Gröschel (Hochschule Heilbronn). Alexander Weissert and Marco Kästner were also part of the team.

Students of the Bachelor study course Electronic Business developed in collaboration with SAP Deutschland AG und Co. KG an application based on NetWeaver CE to manage and book rooms. The goal was to replace the manual reservation of rooms and equipment by a web-based solution.

Initial situation

SAP Deutschland is a local division of SAP AG. The room booking for global rooms inside SAP is managed via a central tool. In addition to such global rooms some team internal rooms are available to be booked by consultants for meetings with or without customers. These rooms are manually managed by team assistants. Consultants ask for a room and equipment on a specific date and the team assistant checks in a local Microsoft Excel file, if there is a free room available. Depending on the availability they get an approval, a rejection or a proposal for a new time or room. It is evident that the process has some disadvantages. Among high manual workload for the team assistants, consultants depend on team assistants.

Goals and objectives

The main objective was to develop a web-based solution offering a self-service environment to the consultants to simplify the room booking process. A self-service for the consultants removes the involvement of assistants for the main steps of booking a room. The consultants get an overview of all rooms, can select an available room and book the room themselves. The assistants are not involved in booking tasks and therefore relieved, but have the new function to manage the access rights for their consultants and the rooms for the team.

Used technologies

The tool is completely based on SAP NetWeaver Composition Environment (NW CE). The business logic is developed in Java (JEE5) and the user interface in SAP's standard UI technology Web Dynpro (WD) Java.

Project organization

Similar to a real business project, every team member worked in a specific role. The involved roles in the project were:

- **Project Manager:** Managing head of the whole project. The PM had to manage the project, create and assign work packages, monitor results and project risks. In addition the PM was in charge of the tasks of product management and architecture: Defining the requirement specification and modeling the software architecture in cooperation with the stakeholders.
- **Developer business logic:** The functional algorithms that handle information exchange between a database and a user interface are called business logic. The programmer of the business logic had to develop algorithms in Java (JEE5) on the basis of NetWeaver Developer Studio Composition Environment (NW CE).
- **Developer user interface (UI):** The UI developer used the objects provided by the business logic and built the user interface with Web Dynpro and Java on the basis of NW CE.
- **Administrator and Tester:** The administrator had to monitor and maintain the development environment. The tester had to provide the test cases for different test phases and to coordinate the tests and manage the issues.
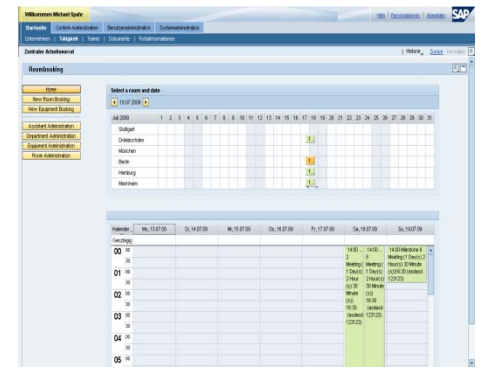
Project phases

The project was divided in different phases:

- **Analyzing and Designing:** The team had to analyze and document the requirements to get a common understanding of the problems and possible solutions. Depending on these documents, the software design was created. In addition the up skilling in SAP technologies was done in this section.
- **Development:** In this main phase, the business logic, the user interface and the connection between them were developed.
- **Test & Documentation:** After the development phase different test phases take place and the documentation of the solution was done by the team.

Project results

As result of this project by SAP and the University of Heilbronn a useful application was developed. This application will be used in productive environment for a specific team and can be extended to more teams worldwide. Other project teams can follow up on this and enlarge the application with more features based on the delivered code and documentation.

Screenshot of the new Room Booking Application. The picture shows the calendar view with options to create, read, update and delete bookings.

Conclusion

The cooperation with SAP was a real challenge for all team members. New technologies, an own SAP wording and a new environment – the students had the chance and the exercise to get deeply in touch with one of the biggest software vendors. For all team members, it was important to deal with current technologies and manage the problems of a real project. To hit the goals, all stakeholders of the project had to work together. Only through a continuous integration of the customer, the students could achieve the expectations and objectives. They also could improve their presentation and English skills through several weekly meeting calls.