HASSO–PLATTNER–INSTITUT
für Softwaresystemtechnik GmbH an der Universität Potsdam

Course **"Concepts and Technologies for ERP Systems"**, SS 2003

Dr. Heiko Schuldt

Exercise No. 1: Get Acquainted with SAP R/3

In this and in the following exercises, you will have the possibility to work with SAP R/3, a large-scale business information and application system.

We assume that you are working with a company (IPH Ltd.) that already uses SAP R/3. In addition to the already established business activities, your company now also wants to provide banking services. You are asked by your boss to seamlessly include these banking services in your company's SAP R/3 system.

This integration will be split to several practical exercises. At the end, a SAP R/3 system, that is tailored to your company's individual needs should have been emerged.

This first part is dedicated to get acquainted with the system, to take a first look at the multitude of functionality that is shipped with the system, and to get an idea of the various tools that come with the system. These tools help in creating and analyzing the data model, creating and analyzing the data structures (SAP tables) that implement these entities, and in analyzing the mapping to the underlying relational database system.

Question 1: A first Look at the System

After logging in, the "main page" of SAP R/3 is displayed. From here, you can start to explore the three main application areas Logistics, Accounting and Human Resources or you can change to the integrated SAP R/3 development environment by choosing Tools.

a) **SAP R/3 from a Business Users point of view**

You have first to define yourself as a customer in the system. You can find the customer management (Accounts Receivable or Debitoren) in the Financial Accounting, under Accounting. You have to Create a Master Record there. As customer, you should use your SAP login (that is `developxx`, where `xx` should be replaced by the number of your account). Use General Customer for the class of this particular customer.

In order to get an idea of the complexity of the system, you should browse along the deeply nested menus of the three application areas. By using the button "Exit" you go always one level up until finally reaching the main page.

b) **Analysis of the Data Model**

For your banking application, you need to re-use the customer data that are already maintained by your SAP system. You therefore first want to take a look how this customer data is modeled and managed. A set of administrative tools are available for this purpose.

i.) Find the data model "Business Partner" `FI___10159` in the system (this data model has three! underscores in its name). You can display a data model with a tool called Data Modeler.

ii.) How many entity types are in this data model (hint: you can choose the graphical display of the data model to get an overview)?

iii.) How many customer entities can be found in this data model? What are their IDs?

c) **Implementation of Entity Types**

   i.) Which schema element /table, view, etc.) is assigned to the entity type *customer* (here, the customer entity with the highest ID should be used). This information is available in the Data Dictionary which you can directly reached from the Data Modeler.

   ii.) To which tables is the entity type *customer* matched to?

d) **Contents of Table** KNA1

   i.) How many tuples does the table KNA1 contain? You can display the contents by using a tool called Data Browser.

   ii.) Try to find the entry for customer developxx you should have created a couple of minutes before.

Question 2: Personl Configuration

As you might have noticed, it it sometimes quite complex to navigate to the deeply nested menu structure. However, by defining favorites, you have to possibility to create user-defined bookmarks which allow fast access to your favorite transactions (these are the entry points for dialogue windows).

Create two new folders in the favorites: Development and IPH Bank.

Fill these folders with entries (Insert Transaction). In Development, you should insert the Data Dictionary and the Data Modeler. The transaction codes can be displayed, when you are in a transaction, via Transaction in System → Status ....

For the IPH Bank, you should first add Create Customer you have already used before and Change Customer. This list will be extended by functionality you add to the system in the following exercises.

Question 3: Working with the System

In what follows, you will take a deeper look at some functionality and you should get an idea which business area manages which kind of information.

a) **Human Resources**

   In your company, there is a colleague called Karl-Heinz Schibulski. Go to the Personal File (Personalakte) of Mr. Schibulski and try to find answers to the following questions:

   i.) What is his birth date?

   ii.) When did he join your company?

   iii.) Where is his enterprise location?

   iv.) What is his Job Key and Job Description?

   v.) What is his marital status?

   vi.) Where does Mr. Schibulski live? How far is his apartment from the office?

   vii.) How many days of leave he was entitled in 1999, how many day did he request that year?

   viii.) What is his standard monthly pay?

   ix.) And finally: Where does he have a bank account (where does his monthly pay go to), what purpose does his employer note on the money transfer forms?

b) **Financial Accounting**

   You want to find out to which banks your company already has established business connections (i.e., to which banks are master records available). You first concentrate on German banks. How many German banks are known to the system? What is the name of the bank with the lowest banking key?

   How many Swiss banks are known in the system? How many Austrian banks? Find the names and the banking keys for all banks that are located in Vienna.

c) **Office Applications** In the SAP R/3 system, there is also a bunch of office functionality available. Go to your personal calendar and enter the seven lecture dates (during the lectures, you are of course not available to participate in business meetings with your colleagues).

Plan an appointment with some of your colleagues (figure out whether they are available) and make a room reservation. How many rooms at Walldorf are available and can be booked via the system? What are the names of these rooms? How many people fit into them?

Send a short message to the user `schuldt` by using the built-in message functionality in SAP R/3 (available under the Systems Menu).

d) **Logistics** While walking after lunch from the cafeteria to your office, you find on the campus of your company an old box on which a sheet of paper is attached. The only thing you can read on this sheet of paper is `Inbound Delivery 180000060`. Try to find out what has been in this box, when it has been delivered, the weight of the box (including its original contents) and from whom the box has been delivered. Can you also find out at which branch of your world-wide company you are located?

Of course, we have explicitly provided you access to all this information. There is a very sophisticated user management and role model in the system such that unauthorized access to information (like the personal file) is in real-world systems prohibited!