Chapter 1

Introduction

1.1 Type of Problem

A real-estate auction firm $e - Immo$ wants a new software for processing the collection of information and of the representation of information. This processing should be simple. The users of this system are the collector of information and the inquirer, who can be a person or another system. One demand is, that the system is simple to service, by meaning, it should not be necessary to install the collection- and representation-components local. Furtheron, $e - Immo$ should have the possibility to influence the processing of information for individuals.

Chapter 2

25.10.01

2.1 Get it by working

I serched in the Internet to find out information about CRC - Card Sessions. The ideal group size for a CRC Session is five or six persons. Everyone should participate. The group should be composed of developers, domain experts, and an object-oriented technlogy facilitator.
CRC - Cards are useful to detect, which classes the system should have and which responsibility they have.

2.2 How to create cards

The first step is to idendify the class in the problem domain, so we fist have to do a problem discription. After this we have to search out the key words, this leads to the classes, (search the nouns), and to the responsibilities, (search the verbs).

Chapter 3

31.10.01

3.1 Preparation for a CRC - Session

1. Benefit of a CRC - Session
   It is useful to make someone fimilar with the problem. This means the team has worked out little topics of the problem, CRC - Cards, and a concept for the System. Its our turn to present it to our customers, ask questions, and get the problem by working. From the declaration only we could not know, what our customers want.

2. Devision of labour
   Robert Rescher was our project leader for this date, I followed the session, and wrote down important tasks. Itis to say that also the others will write down and follow the session.

3. Problem description

   - An auction company for real estates wants us to work out a system for them.
   - Recorder of Data hava a seat in the company.
   - The persons who place a query are all.
   - The real estates hold the data of the single offer.
   - We need a collecting point for the offers.
   - We need real estates.
   - We need a communication device, that record components and presentment components will not be installed local.
   - Its our task to indruduce a process for data collection and for dada presentment. We have to inform, which process is to difficult for the customer.
   - According declaration we know that the recorder of data hava a seat in the firm, we are interested in if there should be company internal restrictions. One the other side could it be possible that potential users also are external. If this is the case, who is this user and which administration does the company want.
   - By that we know, that the enquery can be made by a strange system, or a person, so all. We are intersted in if a user has to identify itself, and how should be the presentment of Data

4. So we have several cards and responibilities

   - USER knows its characteristics
   - REAL ESTATE knows its characteristics
   - REAL ESTATE COLLECTION knows the real estates
     receives the real estates
     saves and deletes them.
   - ACCESS RIGHTS knows its characteristics
   - USER COLLECTION knows the users and its rights
     deletes them
     inserts them and their rights
     passes the information about rights
   - TERMINAL receives Data
     displays Data
   - ENQUIRIER requests
     gets required information about real estates
     returns the information
   - RECORDER makes possibility for input available
     accepts information about real estates
     returns real estates
   - REPRESENTATION PROCESSOR receives sorted Data
     passes querry related real estates
     displays masks for login
     input and output
   - SYSTEM INTERFACE offers login
     checks login Data
     enables requestion of record of Data
     transmit Data
   - INFORMATION FILTER receives Real estates
     checks rights
     filters information
     passes it.(If really needed depends on the answer of our question).

Chapter 4

07.11.01

4.1 It was my turn. I was project leader

We have formed out our CRC - Cards, problem description, and questions. I made a concept how to handle the second CRC - Session.

- Greeting
- Presentment of the team
- Problem description, with CRC - Cards, ask questions

4.2 The concept

1. GREETING I welcome you to the CRC - Session. My name is Elisabeth Strobl. I am the project leader. First I want to present my team. ......

2. PROBLEMDESCRIPTION Now I want to explain the problem or better said get it by working. I will explain how we have understood or interpreted. If we have interpreted wrong, please point us at the section.
   You are an auction company for real estates. So the most important class we have in the system to develop is real estate. This class consists the Data of the single offers. Next we need a collecting point, so the next class the system should have calls real estate collection. It is trusts with the real estates, receives them from the recorder and saves them, deletes them or returns them to the enquirier.
   I have mentioned two further classes namely recoder and enquirier. Its clearly for us that the recorder makes possibilities for input the data, returns comletely collected real estates and accepts infomation about real estates. Fact is that enquirier are potential users of the system. The questions we have are: how to define potential user. Should the system have internal restrictions if so which restrictions. Are recorder, enquirier only company internal or can they be external, if so who are this users and which administration does the company want.
   So we have one class of local interst for registration components and for presentment namely the representation processor. It displays masks in a Data format which is used by common terminals. It communicates with the system interface, which is the

connection between enquirier, recorder and representation processor, and manages the login, this means it communicates with the user collection.
But what we do not know what you mean with: Preparation of the information for individuals. Do you want to present the information to a strange system unlike them to an individual, or do you restrict the possibilies to receive information, respectively the information for individuals. So we know by the interrogation that it could be a strange System or an individual. We are intersted if the system or the person has to identify itself or not.
An important class however is also the user. It knows its characteristics. We have also introduced anoter class called user collection. Its is responsible for the users, that means it knows the users and its access rights, deletes them, submits them and passes the information about rights to the system interface. This class is only necessary if you want a system internal user administration. This is a point we recommend. The last classes we have introduced are named access rights and terminal.

Chapter 5

14.11.01

5.1 Essential USE CASES

A use case are sequences of auctions. It is important for a person, an organisation, an external System, which take part of the interaktion with the system.

USE CASE LOGIN The Login manages the login of a user.
Its post condition: The user will be logged in.
What happens: Login Mask will be presented, user types in, data will be checked(checks the user and verifies its security level for the current session). If they are right the user is in the system. The user can cancel at any time.
USE CASE RECORD The user can record new real estates.
Its pre condition: The user is logged in and has the right to record real estates.
The post condition: real estates are saved in the system.
What happens: The input mask will be presented. The user submit and confirm the data, whether he can change it or can give an OK then the data will be saved. The system verifies the data and asks the user to recheck it. The user can logout and cancel at any time.
USE CASE ENQUIRY The user can make a query for real estates.
Pre condition: is logged in.
Post condition: The user receives data, depending on his level.
What happens: The enquery mask will be represented. The user chooses the searched data. He has a lot of possibilities, like pulldown menues. The System presents query and level related data. The user can logout or cancel at any time.
USE CASE ACTION CHOICE It can be choosen RECORD or ENQUERY by the user.
Pre condition: The user is logged in and has the right to record data.
Post condition: Mask will be presented.
What happens: The System presents the choice mask. The user chooses Record or Enquiry. The System presents the mask.

5.2 Essential USER INTERFACE PROTOTYPING

LOGIN In the Login Mask, first there will be the word LOGINNAME. After the user has typed in his name, there will be the word PASSWORD, and the user type in his password and see it encoded. Down there are three buttons with the topics OK CANCEL and INFO.

ACTION CHOICE In this mask is a "NOR button" for wether Record or Enquery, and down are also two buttons with the topics OK an LOGOUT.

RECORD In this mask are several characteristics of the real estate like: name, description, type of real estate(pulldown), size, address, rooms, current prize, and maybe a button for a picture or the presented picture. In this fields the user can type in the Data of real estates. Down of the mask there are the buttons OK CANCEL and LOGOUT.

ENQUERY Here are also several characteristics of the real estates like in the record mask, but realized with pulldown menues. And down of the window there are also wheither SEARCH or CANCEL or LOGOUT.

PRESENTATION Questions are open, I do not know how to realize.

AUCTION Questions are open, I do not know how to realize.

Chapter 6

21.11.01

6.1 Class diagramm

A class diagram is used to see the components of the System and its relationships.

OBJECTS IN THE CLASS DIAGRAMM WITH ITS CHARACTERISTICS AND TASKS

- REAL ESTATE:
  name, Address, kind, description, size, rooms, prize, level, time of expiration, picture, age, user

- USER:
  name, address, password, level

- ACCESS RIGHTS:
  level, access right

- DATA COLLECTION

- ENQUIRER:
  receives requested data, calls reader

- RECORDER:
  receives real estates, calls writer to store

- AUCTION:
  receives real estate data, calls writer

- SESSION:
  user data
  initiates enquerier, auction and recorder, logout

- SYSTEM INTERFACE:
  data exchange with Representation Processor, initiates Session and Login

- REPRESENTATION PROCESSOR:
  Exchange data with System Interface and terminal, presents masks

- TERMINAL
- LOGIN
- WRITER:
  delete,insert,edit
- READER:
  request

It is possible also for the System to run all interactions about the System Interface too, but its more useful to let it run via the Session.

Chapter 7

12.12.01

7.1 Activity Diagrams

LOGIN

1. present mask
2. user type in and submit
3. the system instantiate a session
4. the system checks the login
5. the system destroys the login
6. case: login OK go to next AD, else Session is destroyed

MULTIPLE CHOICE

1. present mask
2. user choose
3. go to next AD

RECORD

1. present mask
2. user put in data submit
3. request from the System
4. user submit
5. writer will be called
6. writer writes data

QUERY

1. present mask
2. user selects data for query and submits
3. reader will be called
4. mask for querry results
5. user select a real estate
6. reader will be called
7. mask for single offer
8. user bid
9. writer will be called
10. back to querry results

The user can cancel or logout at any time

Chapter 8

Questions and answers

8.1 Questions in the course of the time

- Do you want to have a fixed format for description, especially for the pictures?
  YES
- Should the System have internal restrictions if so which restrictions?
  YES, ONION SYSTEM
- Do you want to make an input check if the data comes from another company?
  NO
- We are interested if the System or the person has to identify itself or not?
  WHEN IT GOES TO THE INNER SYSTEM.
- Is the auction online or not?
  YES INTERNET OR WAP
- Which input fields do you also want(Which are not in the use case?)
  ENOUGHT
- Are pulldown menues ok?
  YES
- Enquery input fields enought?
  AGE
- Do you want to present the real estates on the auction page or do you only want to have a short description on the auction page and a link to the description in detail?
  LINK
- Do the customers need to have a normal login too or is an identification by creditcard enought?
  ENOUGHT
- Do you want to put a general help-function to the users disposal?
  YES

- Should we enable the user to logout at any time?
  YES
- Which registration criterions are demanded?
  NAME ADDRESS
- What do you mean with Preparation from the information for individuals?
  ONLY GRAPICAL REPRESENTATION

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