System Analysis and Design

USE CASE

A use case represents how a system interacts with its environment by illustrating the activities that are performed by the users of the system and the system’s responses. The. Use cases are often thought of as an external or functional view of a business process.

**Advantages**:

* The use cases will help the analysts develop a more detailed understanding of the new system’s functional requirements.
  + System developers commonly find that a well-constructed set of use cases includes most of the functional requirements.
* Use cases are very helpful in understanding **exceptions, special cases, and error handling requirements** in the new system.
  + These requirements are easy to overlook but creating use cases  
    helps to discover them.
* Finally, the text-based use case is easy for the users to understand and  
  flows easily into the creation of process models (Chapter 6) and the data model (Chapter 7), which are used by the analysts to more fully define the software that will be developed in the new system.

**What Is A Use Case?**

A use case depicts a set of activities performed to produce some output result. Each use case describes how an event triggers actions performed by the system and the user. With this type of event-driven modeling, everything in the system can be thought of as a response to some trigger event. When there are no events, the system is at rest, patiently waiting for the next event to trigger it. When a trigger event occurs, the system (and the people using it) responds, performs the actions defined in the use case, and then returns to the waiting state.

**The Use Case Steps Look at the book Page 169**

**The Use Case Elements Look at the book from Page 158**

**Casual Use Case Format**

We begin with an example use case that is casual. This use case is based on the scenario of a lawn care company that employs specially trained workers to apply lawn chemicals (fertilizers and pesticides) to customers’ lawns. The company maintains a chemical supply warehouse where the employees obtain the needed chemicals for their lawn care assignments.

**The process of obtaining lawn chemicals involves three main steps:**

* Authenticating the employee and ensuring he has the required training and credentials (a legal requirement for those who work with potentially dangerous materials such as pesticides).
* Submitting a request for the needed chemical
* And picking up the chemical from the chemical supply warehouse.

The example use case focuses on the second step of this overall process: **requesting a chemical**. Refer to Figure 1 as we describe the sections of the use case. There are numerous pieces of information in the use case, each with an important role to play in describing the response to the triggering event.

* **Incomplete template to learn from it does not use it**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Use Case Name: Add New Realtor | | | ID: UC1 | | Priority: High |
| Actor: Admin | | | | | |
| Description: Some description | | | | | |
| Trigger: Admin want to add new realtor to the site | | | | | |
| Type: **External** Temporal | | | | | |
| Preconditions:   1. The admin must be logged in the admin area. 2. The admin has the permission to add new realtor. 3. The admin know all information of that realtor. | | | | | |
| Normal Course:   1. Adding new realtor to the system    1. The admin click on button ‘Add realtor’    2. The system show the add realtor form data (Name, …)    3. The admin type in the realtor data in the form    4. The admin click on button Save Data.    5. The system make sure that the data is correct and does not exist in the database. | | | | Information for step | |
| Post Conditions:   * 1. The system save the data of that realtor on the database   2. The system send him an email attached with his data to logged in as a realtor   3. The system show a success message and back to the home page | | | | | |
| Exceptions: | | | | | |
| Summary Inputs | Source | Outputs | | Destinations | |
|  |  |  | |  | |

Figure 1