

USE CASE DESCRIPTION

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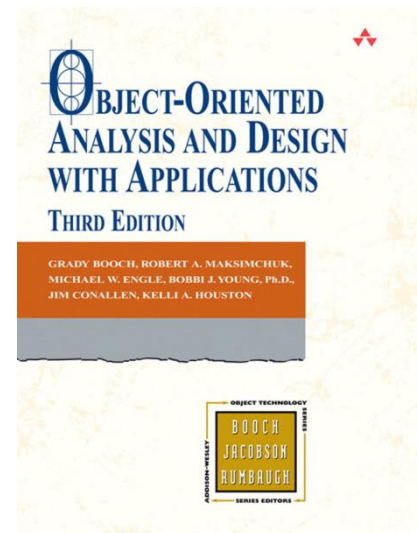
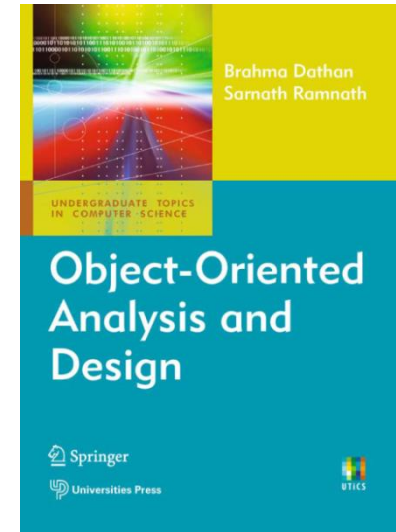
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Reference

- ▶ Brahma Dathan, Sarnath Ramnath – **Object-Oriented Analysis and Design** (2011)

- ▶ Grady Brooch, Robert A Maksimchuk, Michael W. Engle, Robbi J. Young, Jim Conallen, Kelli A. Houston – **Object-Oriented Analysis and Design With Applications** Third Edition (2007)



Use Case Description

- ▶ Describe basic functions of the system using words
 1. What the user can do
 2. How the system responds



Use Case Description

- ▶ Each use case describes one and only one function
- ▶ But may have several paths that the user can take to accomplish that single function



Type Of Use Cases

Overview Vs Detail

▶ Overview

- High level overview of requirement
- Allows users and analysts to agree on major requirements
- Created early, documents only basic info
name, ID, primary actor, type, brief description

▶ Detail

- Once user and analyst agree
- Documents all information needed for the use case



Type Of Use Cases

Essential Vs Real

▶ Essential

- Describes only essential issues needed to understand the required functionality (e.g. make appointment)

▶ Real

- goes further and describes a specific set of steps (e.g. make entry into outlook database)



Elements of Use Case Description

- ▶ Contains all information needed to build use case diagram
- ▶ But expresses it less formally
- ▶ Three basic parts :
 1. **Overview** information
 2. **Relationships**
 3. Flow of **events**

Element of Use-Case Description

Use Case Name:	ID:	Importance Level:
Primary Actor:	Use Case Type:	
Stakeholders and Interests:		
Brief Description:		
Trigger:		
Relationships: (Association, Include, Extend, Generalization)		
Normal Flow of Events:		
Subflows:		
Alternate/Exceptional Flows:		



Use Case Name: Make appointment	ID: 2	Importance Level: High
Primary Actor: Patient	Use Case Type: Detail, essential	
Stakeholders and Interests: Patient - wants to make, change, or cancel an appointment Doctor - wants to ensure patient's needs are met in a timely manner		
Brief Description: This use case describes how we make an appointment as well as changing or canceling an appointment.		
Trigger: Patient calls and asks for a new appointment or asks to cancel or change an existing appointment.		
Type: External		
Relationships: Association: Patient Include: Make Payment Arrangements Extend: Create New Patient Generalization:		
Normal Flow of Events: <ol style="list-style-type: none"> The Patient contacts the office regarding an appointment. The Patient provides the Receptionist with their name and address. The Receptionist validates that the Patient exists in the Patient database. The Receptionist executes the Make Payment Arrangements use case. The Receptionist asks Patient if he or she would like to make a new appointment, cancel an existing appointment, or change an existing appointment. <ul style="list-style-type: none"> If the patient wants to make a new appointment, the S-1: new appointment subflow is performed. If the patient wants to cancel an existing appointment, the S-2: cancel appointment subflow is performed. If the patient wants to change an existing appointment, the S-3: change appointment subflow is performed. The Receptionist provides the results of the transaction to the Patient. 		
Subflows: <ul style="list-style-type: none"> S-1: New Appointment <ol style="list-style-type: none"> The Receptionist asks the Patient for possible appointment times. The Receptionist matches the Patient's desired appointment times with available dates and times and schedules the new appointment. S-2: Cancel Appointment <ol style="list-style-type: none"> The Receptionist asks the Patient for the old appointment time. The Receptionist finds the current appointment in the appointment file and cancels it. S-3: Change Appointment <ol style="list-style-type: none"> The Receptionist performs the S-2: cancel appointment subflow. The Receptionist performs the S-1: new appointment subflow. 		
Alternate/Exceptional Flows: <ul style="list-style-type: none"> 3a: The Receptionist executes the Create New Patient use case. S-1, 2a1: The Receptionist proposes some alternative appointment times based on what is available in the appointment schedule. S-1, 2a2: The Patient chooses one of the proposed times or decides not to make an appointment. 		

Case Study : School System

- ▶ Every school has one or more departments. A student can belong to one or more schools. A student can attend many courses and each course can have many students. A course may not have any students. A student may not be attending any schools or any course. A course is offered by a single department, while a department can offer multiple courses. Each department has many instructors, with each instructor teaching one or more courses. Each department can have at most one instructor as the chair person.

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