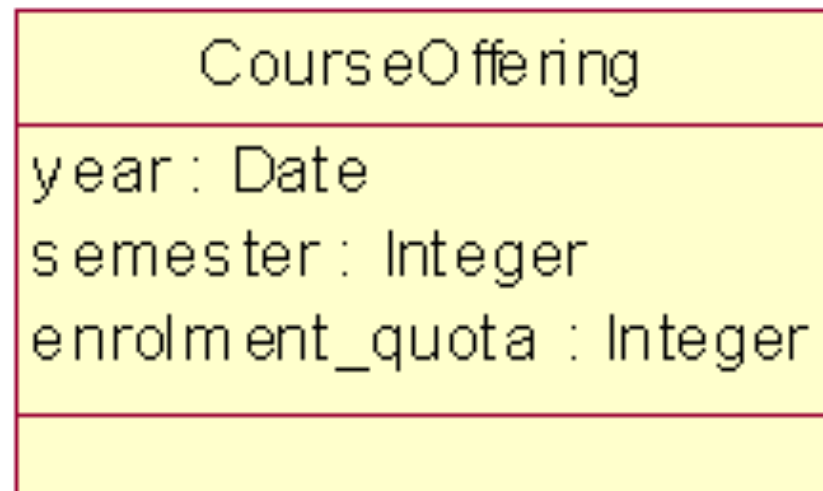
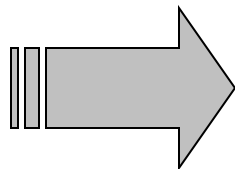


Example A.2 – University Enrolment

- Refer to Example A.1
- Consider the following additional requirements from the Requirements Document:
 - A student's choice of courses may be restricted by timetable clashes and by limitations on the number of students who can be enrolled in the current course offering.



Example A.2 – University Enrolment

- More requirements:
 - A student's proposed program of study is entered in the on-line enrolment system
 - The system checks the program's consistency and reports any problems
 - The problems need to be resolved with the help of an academic adviser
 - The final program of study is subject to academic approval by the delegate of the Head of Division and it is then forwarded to the Registrar

Example A.2 – University Enrolment (solution)

Degree

<<PK>> degree_name : String
total_credit_points : Integer

Course

<<PK>> course_code : String
<<CK>> course_name : String
credit_points : Integer

StudyProgram

year : Date
semester : Integer

Student

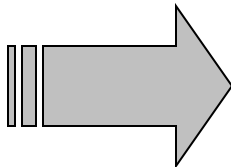
<<PK>> student_id : String
student_name : String

CourseOffering

year : Date
semester : Integer
enrolment_quota : Integer

Example B.2 – Video Store

- Refer to Example B.1
- The additional requirements are:
 - The rental charge differs depending on video medium: tape or disk (but it is the same for the two categories of tapes: Beta and VHS).



RentalConditions
rental_period_in_days : Integer
rental_charge_per_period : Currency

Example B.2 – Video Store

- More requirements:
 - The system should accommodate future video storage formats in addition to VHS tapes, Beta tapes and DVD disks
 - The employees frequently use a movie code, instead of movie title, to identify the movie
 - The same movie title may have more than one release by different directors

Example B.2 – Video Store (solution)

MovieTitle
<<PK>> movie_code : String movie_title : String director : String / is_in_stock : Boolean

VideoMedium
video_condition : Byte \$ number_currently_available : Integer

RentalConditions
rental_period_in_days : Integer rental_charge_per_period : Currency

VideoTape

VideoDisk

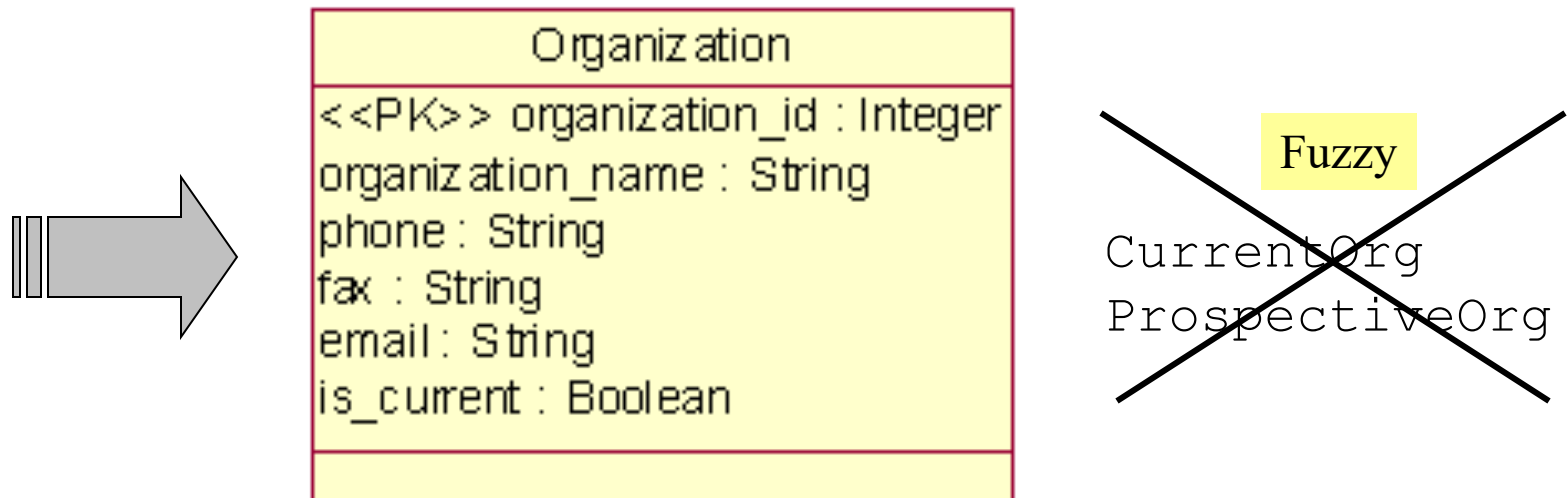
BetaTape

VHSTape

DVDDisk

Example C.2 – Contact Management

- Refer to Example C.1 and consider the following additional information
 - A customer is considered current if there exists a contract with that customer for delivery of our products or services. Contract management is, however, outside the scope of our system.



Example C.2 – Contact Management

- More requirements:
 - Reports on contacts based on postal and courier addresses (e.g. find all customers by post code)
 - Date and time of the task creation are recorded
 - The "money value" of a task can be stored
 - Events for the employee are displayed on the employee's screen in the calendar-like pages (one day per page).
 - The priority of each event (low, medium or high) is visually distinguished on the screen
 - Not all events have a “due time” - some are “untimed”
 - Event creation time cannot be changed, but the due time can.
 - Event completion date and time are recorded
 - The system stores identifications of employees who created tasks and events, who are scheduled to do the event (“due employee”), and who completed the event

Example C.2 – Contact Management (solution)

PostalAddress
street : String
po_box : String
city : String
state : String
post_code : String
country : String

CourierAddress
street_and_directions : String
city : String
state : String
country : String

Organization
<<PK>> organization_id : Integer
organization_name : String
phone : String
fax : String
email : String
is_current : Boolean

Contact
<<PK>> contact_id : Integer
family_name : String
first_name : String
phone : String
fax : String
email : String

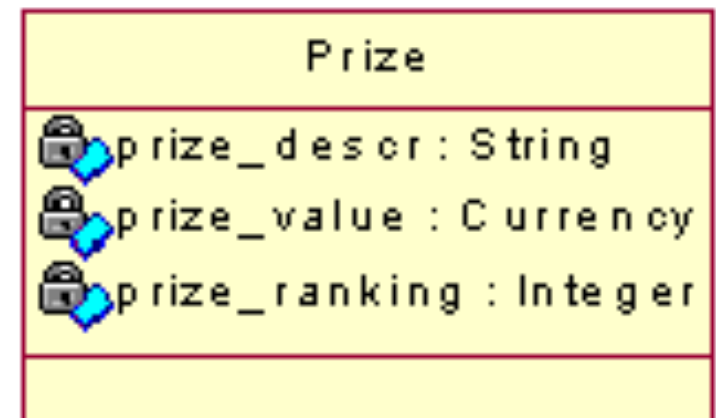
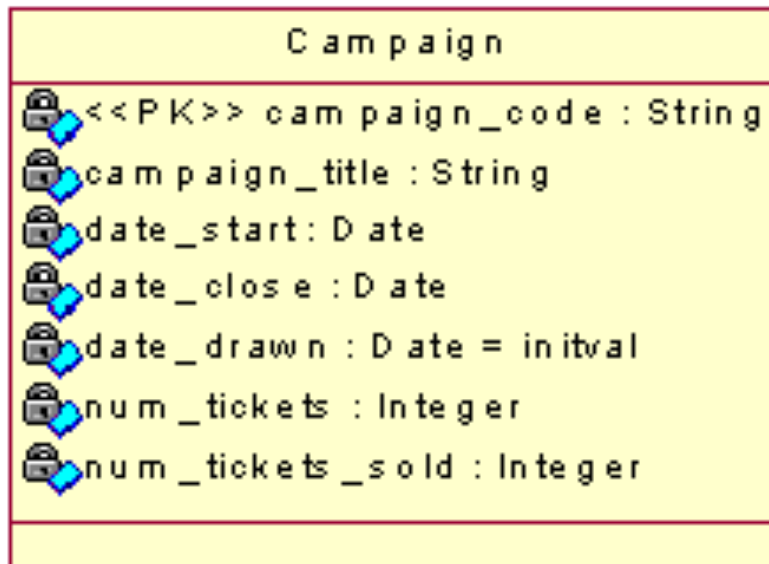
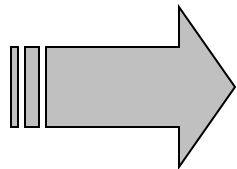
Task
description : String
created_dt : Date
value : Currency

Event
description : String
created_dt : Date
due_dt : Date
completed_dt : Date
priority : Byte

Employee
<<PK>> employee_id : String
family_name : String
first_name : String
middle_name : String

Example D.2 - Telemarketing

- Refer to Example D.1
- Consider the following additional information
 - Each campaign
 - Has a title that is generally used for referring to it
 - Has also a unique code for internal reference
 - Runs over a fixed period of time
 - Soon after the campaign is closed, the prizes are drawn and the holders of winning tickets are advised



Example D.2 - Telemarketing

- More requirements:
 - Tickets are uniquely numbered within each campaign
 - The total number of tickets in a campaign, number of tickets sold so far, and the current status of each ticket are known (e.g. available, ordered, paid for, prize winner)
 - To determine the performance of the society's telemarketers, the duration of calls and the successful call outcomes (i.e. resulting in ordered tickets) are recorded
 - Extensive information about supporters is maintained
 - Contact details (address, phone number, etc.)
 - Historical details such as the first and most recent dates when a supporter had participated in a campaign
 - Any known supporter's preferences and constraints (e.g. times not to call, usual credit card number)

Example D.2 - Telemarketing

- More requirements:
 - Telemarketing calls are made according to their priorities
 - Calls which are unanswered or where an answering machine was found, are rescheduled
 - Times of repeat calls are alternated
 - Number of repeat calls is limited
 - Limits may be different for different call types (e.g. a normal "solicitation" call may have different limit than a call to remind a supporter of an outstanding payment)
 - Call outcomes are categorized - success (i.e. tickets ordered), no success, call back later, no answer, engaged, answering machine, fax machine, wrong number, disconnected.

Example D.2 – Telemarketing (solution)

