

# COMP315-05A Tutorial Assignment 1

## Use Cases

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### Assignment:

This assignment is based on the exercises carried out as part of the tutorials on use cases. It is to provide further practical exercise in using use cases as part of the process of defining system requirements. The assignment will allow you to demonstrate your understanding of the creation of a use case model and its supporting documentation.

In exercise 4 on the Tutorial 1 handout, you were asked to prepare use case definitions and a use case diagram for the description attached overleaf. In light of the discussions in tutorial 2, you are to revise your full use case diagram, prepare a survey description for the use case model, and prepare descriptions (including basic and alternative courses of action) for the following sub-set of use cases:

- join library
- borrow toy
- return toy
- lost toy

The use case diagram may be hand drawn (alternatively you could use Jude or UMLet in the GB.04 lab). The text elements must be typed.

This assignment is to be individual work. While it is understandable that there will be similarities between student submissions given the exercise has been discussed in tutorials, any submitted work that displays undue similarities will be treated as suspicious and as a potential case of plagiarism. Such submissions will be subject to the University's discipline procedures.

You are to submit the completed assignment (i.e. the revised use case diagram, use case model survey description, and the use case descriptions) to the 315 hand-in box in the G\_block stairwell by 5pm on Friday May 6. Late assignments will not be graded.

This assignment is a compulsory item of assessment. It is worth 2.5% of your final grade.

“A toy library is run by a local community centre. The library has approximately 250 members with a stock of around 750 toys, 200 puzzles, 150 DVDs and a number of books. The library is open from 9am till noon, three days a week.

Members of the public are able to apply to join the library by filling out a membership form available from the centre, which is then vetted by the committee. Candidates need a supporting recommendation from an existing member. Approved applicants then pay a joining fee of \$25 in addition to the annual subscription of \$40. Subscriptions normally come due on February 1<sup>st</sup>. New members who join after October 1 get until the February 1 of the next year following on their initial subscription. As subscriptions are received, the membership secretary checks members details against those on record and updates them as required.

Two members of the committee are assigned to purchase new items for the library. The annual budget is around \$4000, which is split 50% toys, 25% puzzles, and the remainder on DVDs and books. Purchasing is done through several local retailers who have an arrangement to discount on the new items. Repairs are also budgeted at around \$1000 per year. Items are expected to have a life of approximately 4 years. Minor repairs can be arranged by the duty desk person. For serious repairs a judgement call is required from the committee member overseeing the stock as to whether to repair or write off. In some cases the charges are put back to the borrower responsible.

Members can borrow up to two toys, one puzzle and a DVD or book per child. The loan is for a two week period. Each item is charged at \$1 per period. The items are all numbered, and this is recorded when the item is issued. At the end of the period, items are returned or the loan is extended. This can be done in person, or by phone. Reissues are charged at the normal rate. The duty desk person must check that a reserve has not been placed on an item to be reissued. If the renewal was being made by phone, the reserved items must be returned within 48 hours. Reserved items returned in person are held for issue to the borrower who reserved them. The person who reserved the item is notified by phone that the item is available. Returned items must be complete and clean. The duty desk person checks all parts are present against the list on the item bag. The item is then disinfected before being reshelfed. Items returned with missing pieces incur a fine of \$10. This is refundable if the missing pieces are located and returned within a month. If the incomplete item is functional then the list of parts is updated and it is made available for reissue. If it is not functional, then it is stored for a month or until the part is located. After a month the toy will be repaired or disposed of. Broken toys may be charged to the borrower. The duty desk person can make exceptions for minor damage. Lost toys are charged to the borrower. The duty desk person will complete a report so it can be written off. Borrowers who substantially damage, or lose part or all of any item more than three times in a twelve month period will have their membership suspended and reviewed by the committee.”