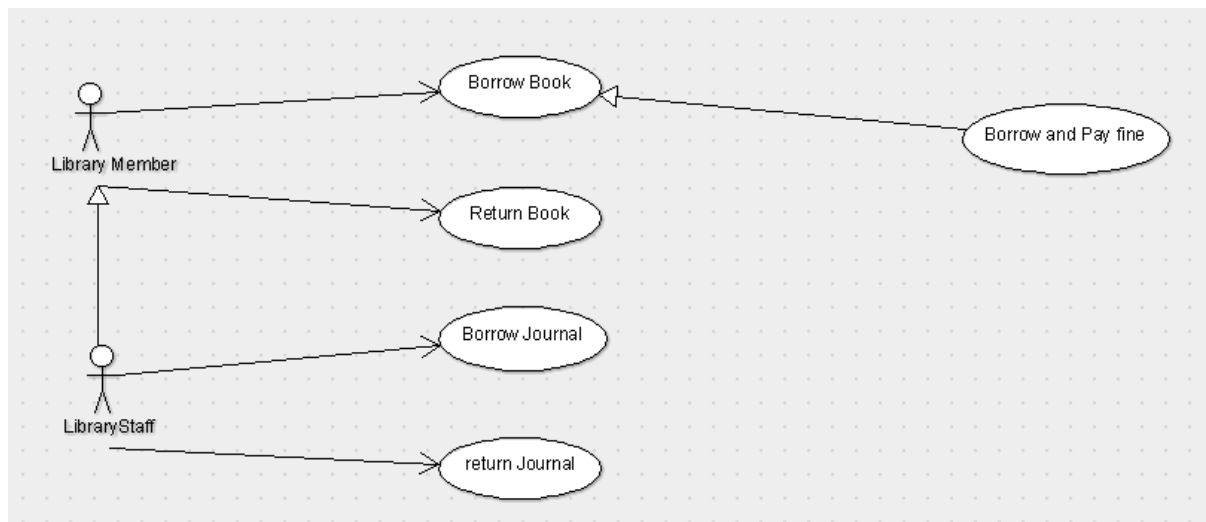


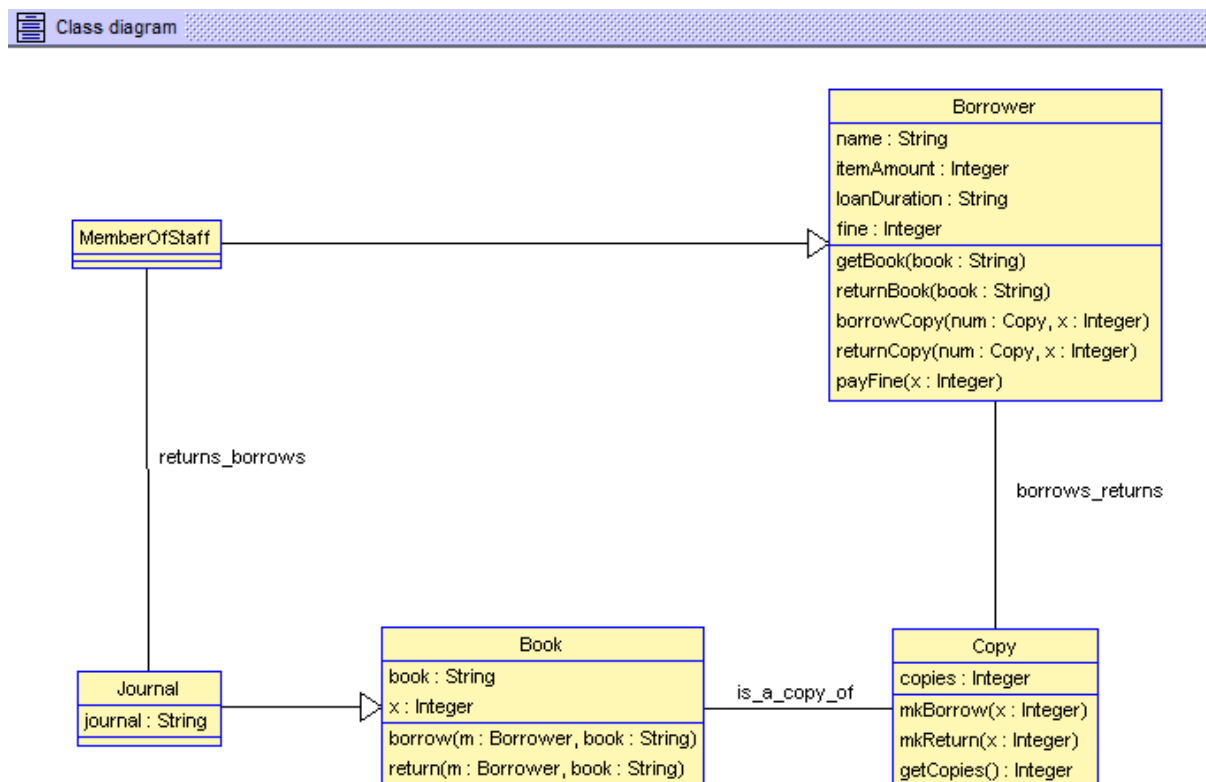
Introduction:

I have created a model for a library in which a member can withdraw a book and return it they can also take a number of copies and return these as well as the book. I also implemented a simple function which allows the borrower to pay any fines that they may have and display a message if there is any remaining fines or if they are fully paid off.

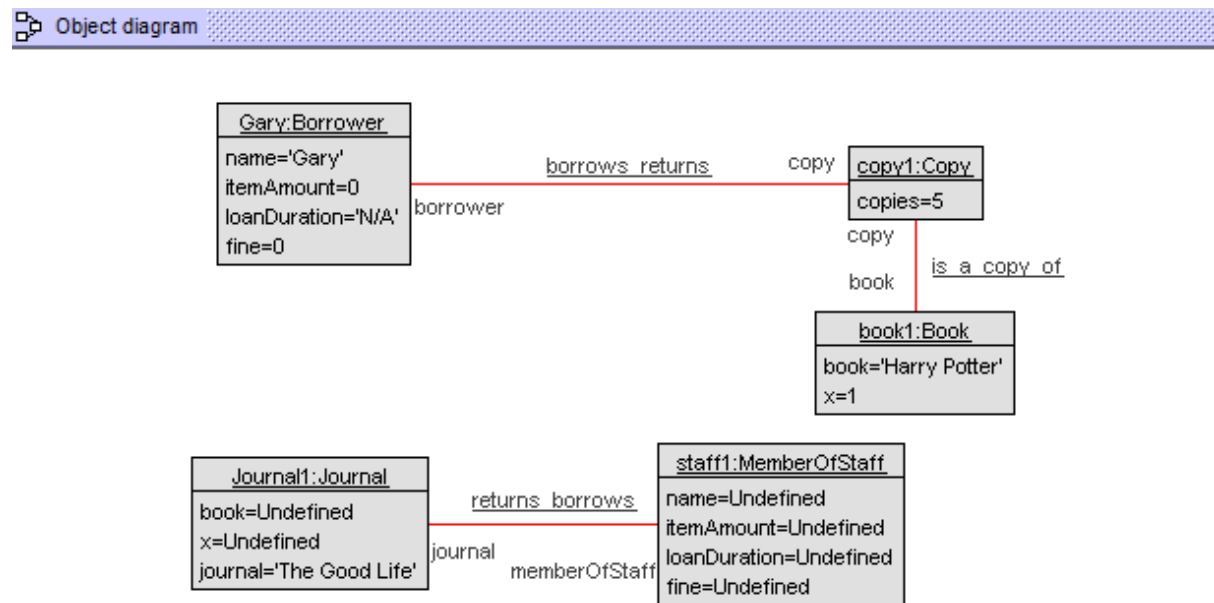
Use Case I based my model off:



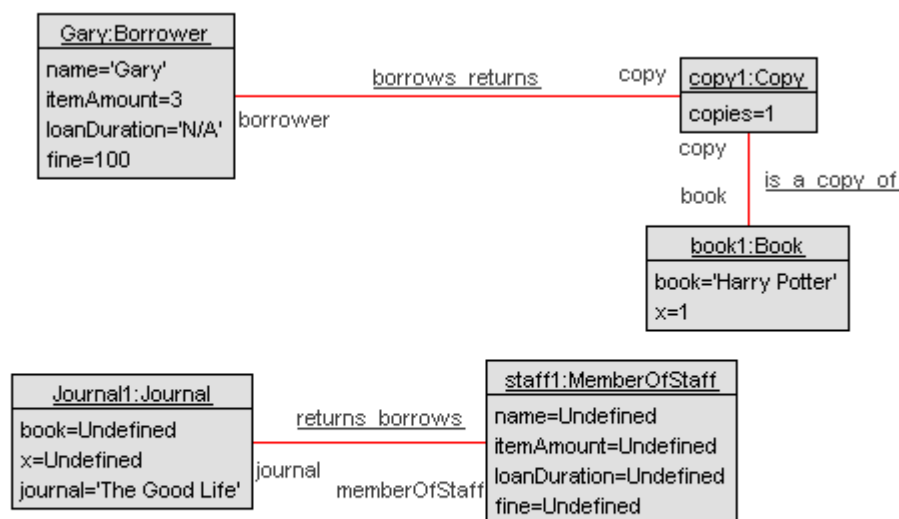
Class Diagram:



Object Diagram Before any Operations:



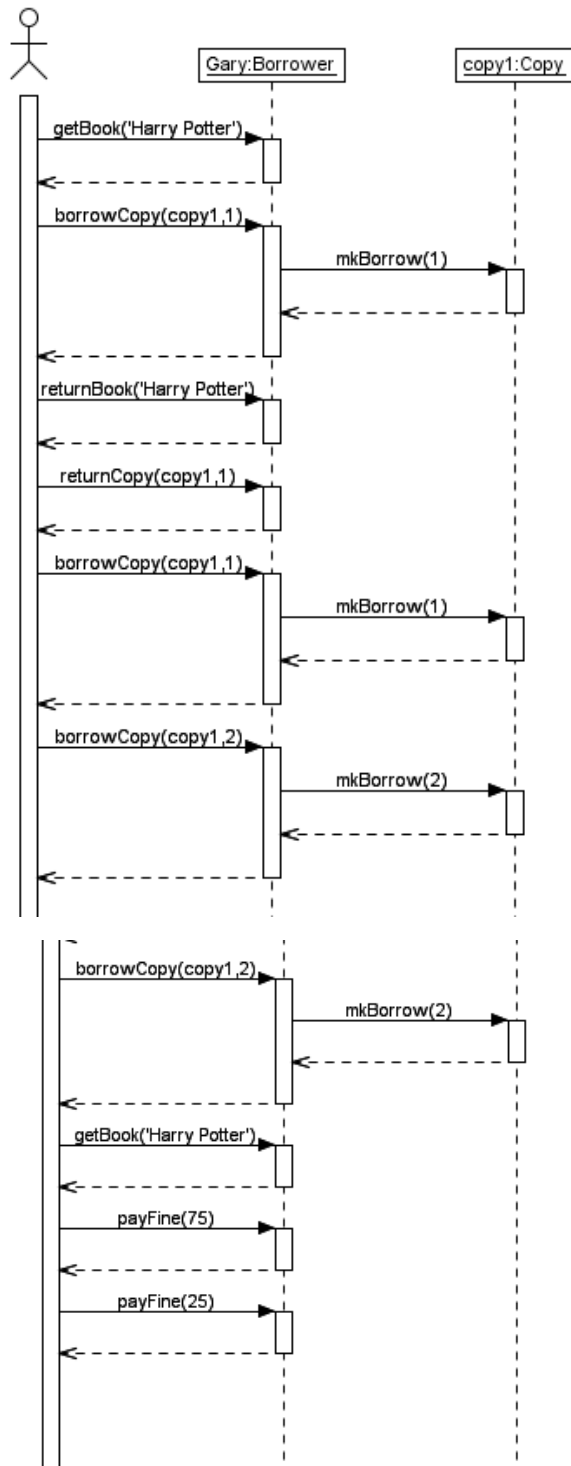
Object Diagram After Operations:



Problems and observations: The big problem I had was trying to figure out how to implement the functions correctly. I believe I never fully fixed this as I would like to have my getBook function and my borrowCopy function to work as one and allows the borrower to withdraw a copy of a book by putting in the book name and the number of copies, I did not get this to work. Another problem I had was understanding the reason for the member of staff class and how to implement this. It took

me many different attempts to get this and still am unsure if it works correctly. I also would have like to implement the length of time a user had left in their borrow term. I did not get this working but left it there just as an idea to keep reminding myself as I worked but did not get this working. I would have also like to implement the borrow journal functions yet could not quiet figure out how to implement them.

Sequence Diagrams:



Discussion:

An observation I made was that I was not the only one struggling with implementing the functions and understanding which functions we were required to do. I would have like this to be clearer in the brief. I found the implementation of the functions particularly difficult as well as getting the Classes correct to implement these. I had to restart and re design my assignment multiple times due to the lack of clarity I felt there was in the brief.