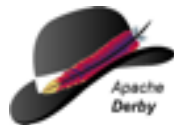


Library Management System

- Group 9
 - Bao Pham
 - Toan Quach
 - Anil KC

• 13. Jul 2015



Agenda

- **Overview**
- **Tools & Technologies**
- **Class Diagram**
- **Database Diagram**
- **Sequence Diagram**
- **Lambda Library**
- **Limitations**
- **Demo**

Overview

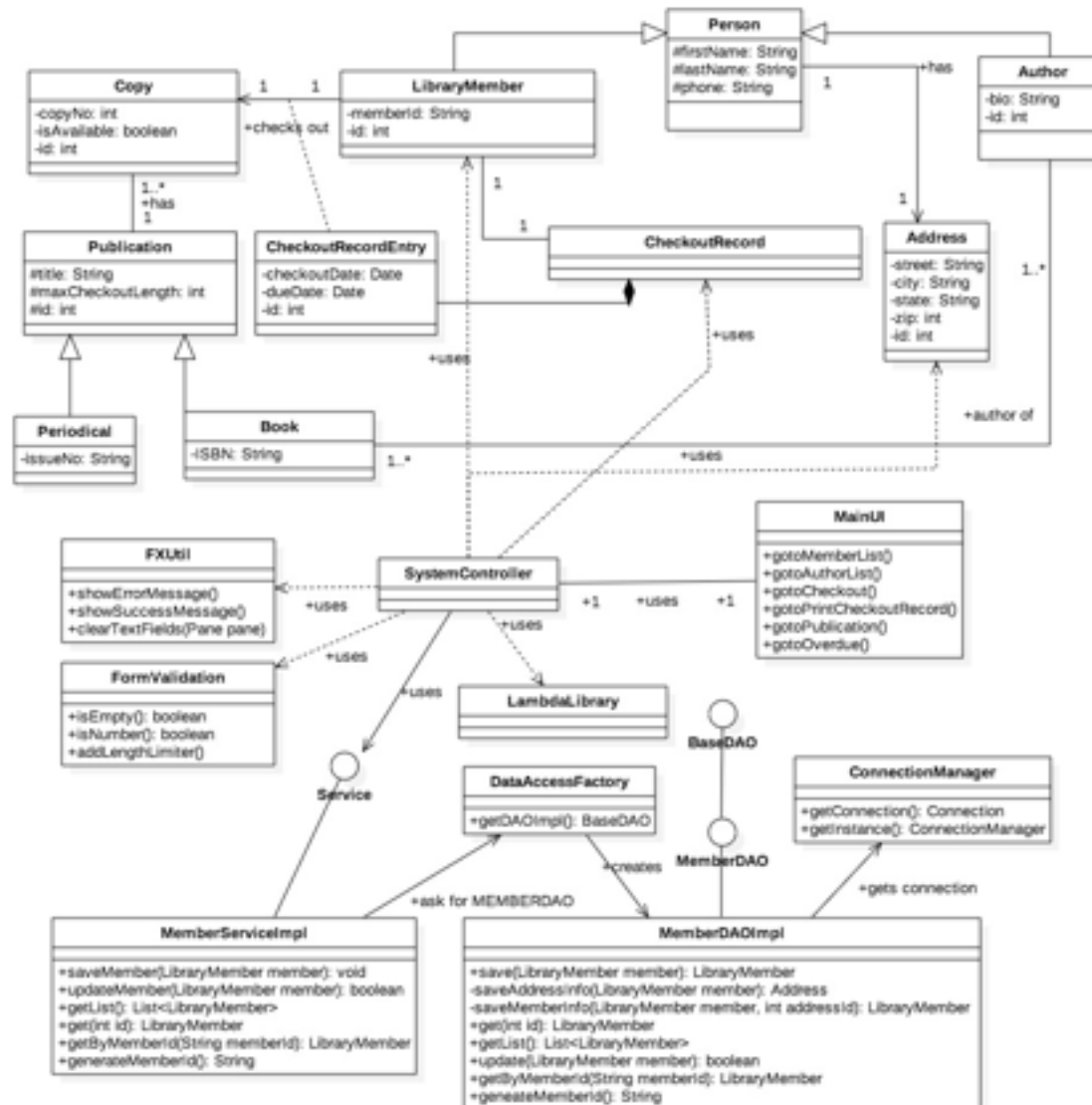
- **Checkout book/periodical for library member.**
- **MVC Model:**
 - Ease to maintenance
 - Reduce code redundancy
 - High extension
- **Object creation factory pattern aids to support multiple data access layers.**
- **Lambda library reduces lines of codes for easy maintenance.**
- **User friendly UI with icons/button.**

Tools & Technologies

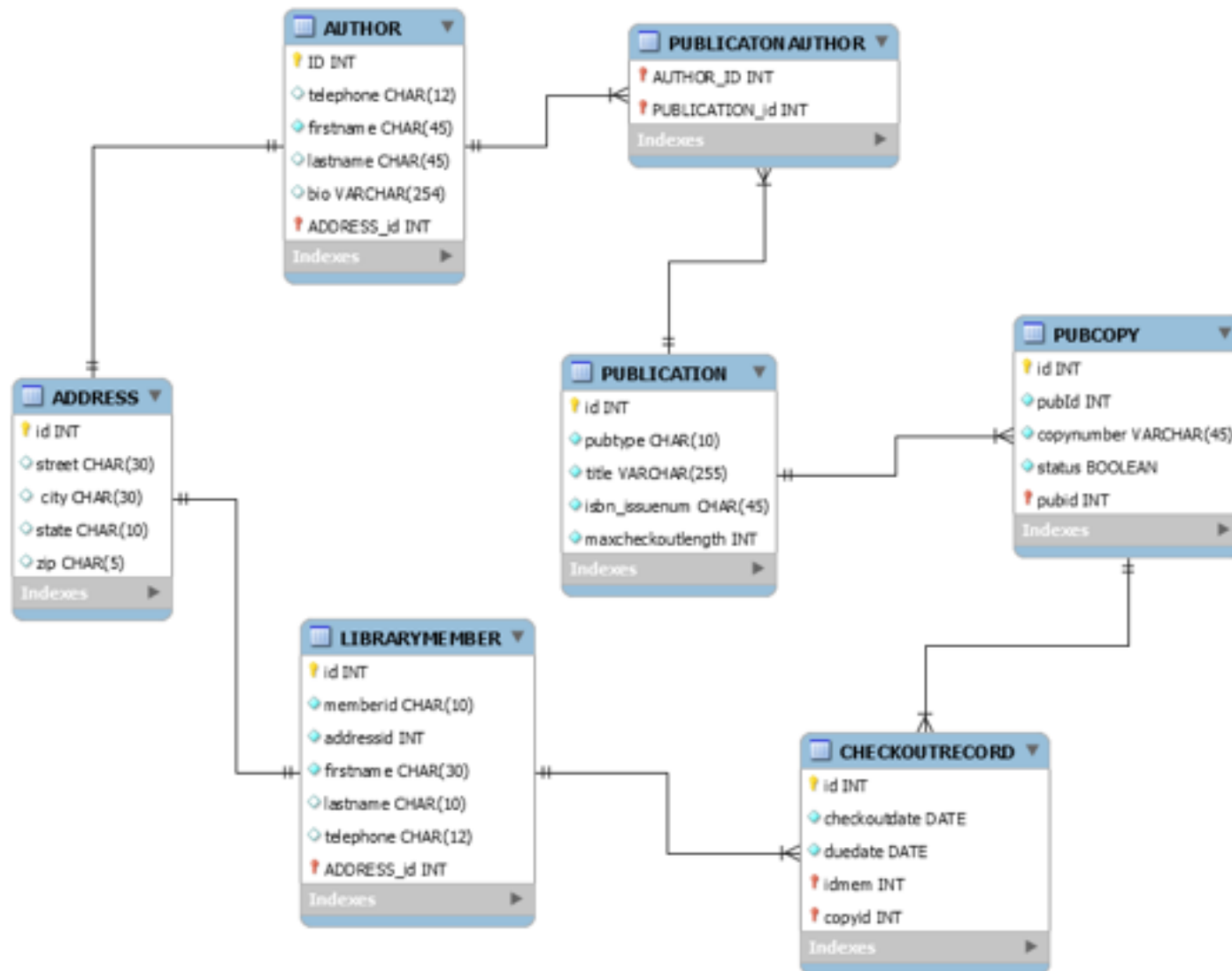
- **JavaFX**
 - FXML
 - FX CSS
- **JavaDB**
- **Lambda expression**
- **Git / GitHub**
- **Balsamiq**



Class Diagram



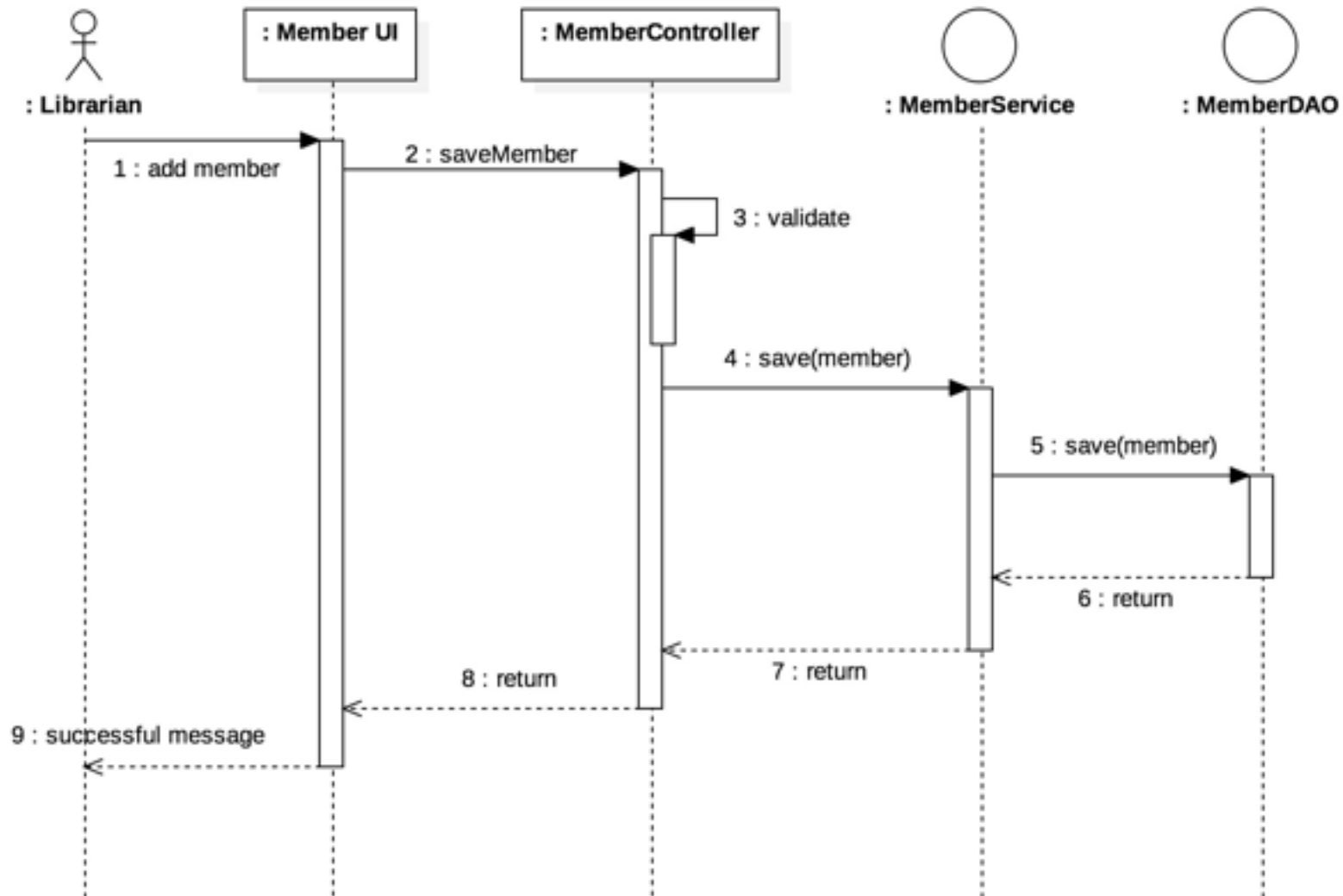
Database Diagram



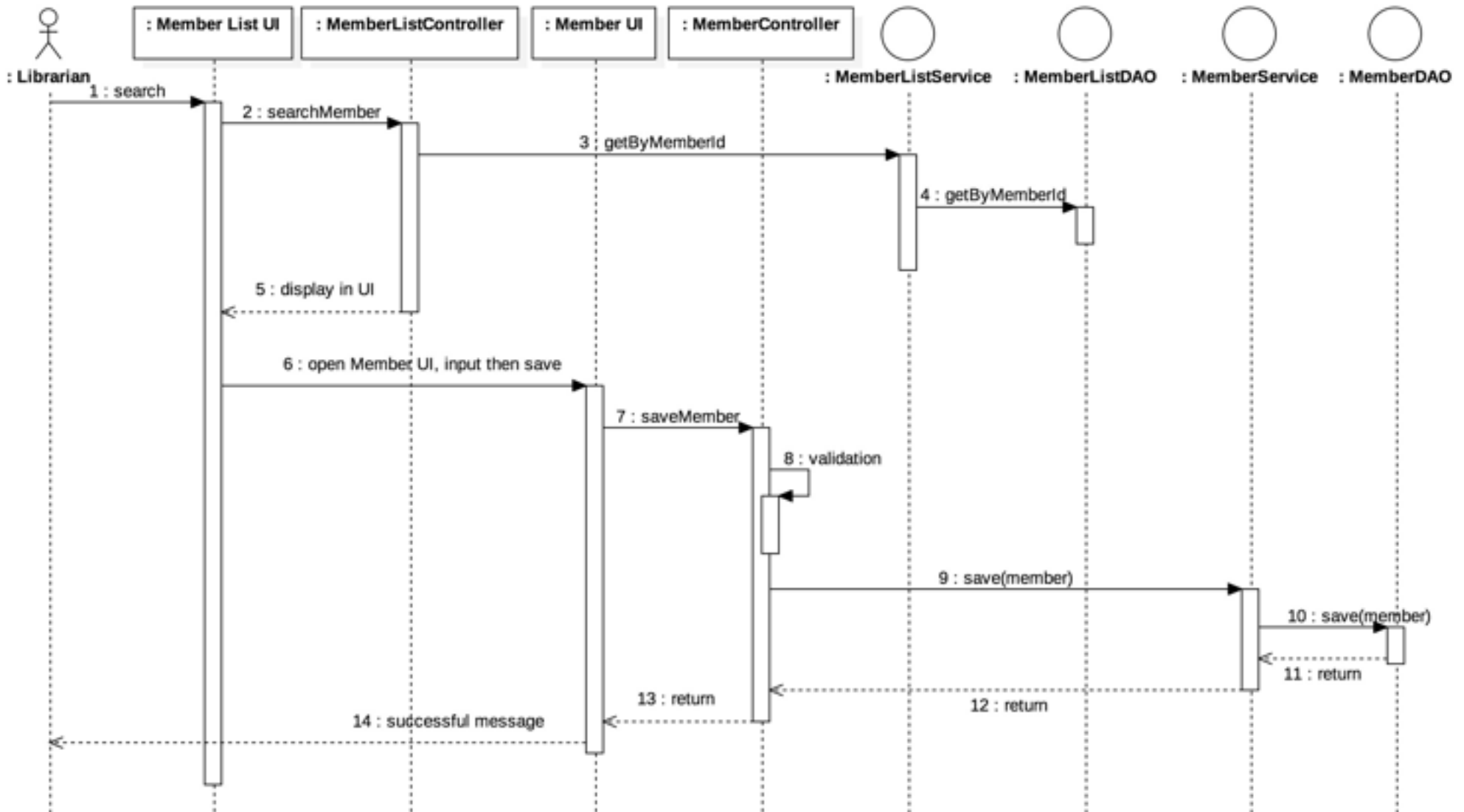
Sequence Diagram

- **Add library member**
- **Search / edit library member**
- **Add publication (book / periodical)**
- **Add copy of publication (book / periodical)**
- **Checkout publication (book / periodical)**
- **Print checkout record**
- **Display publication overdue**

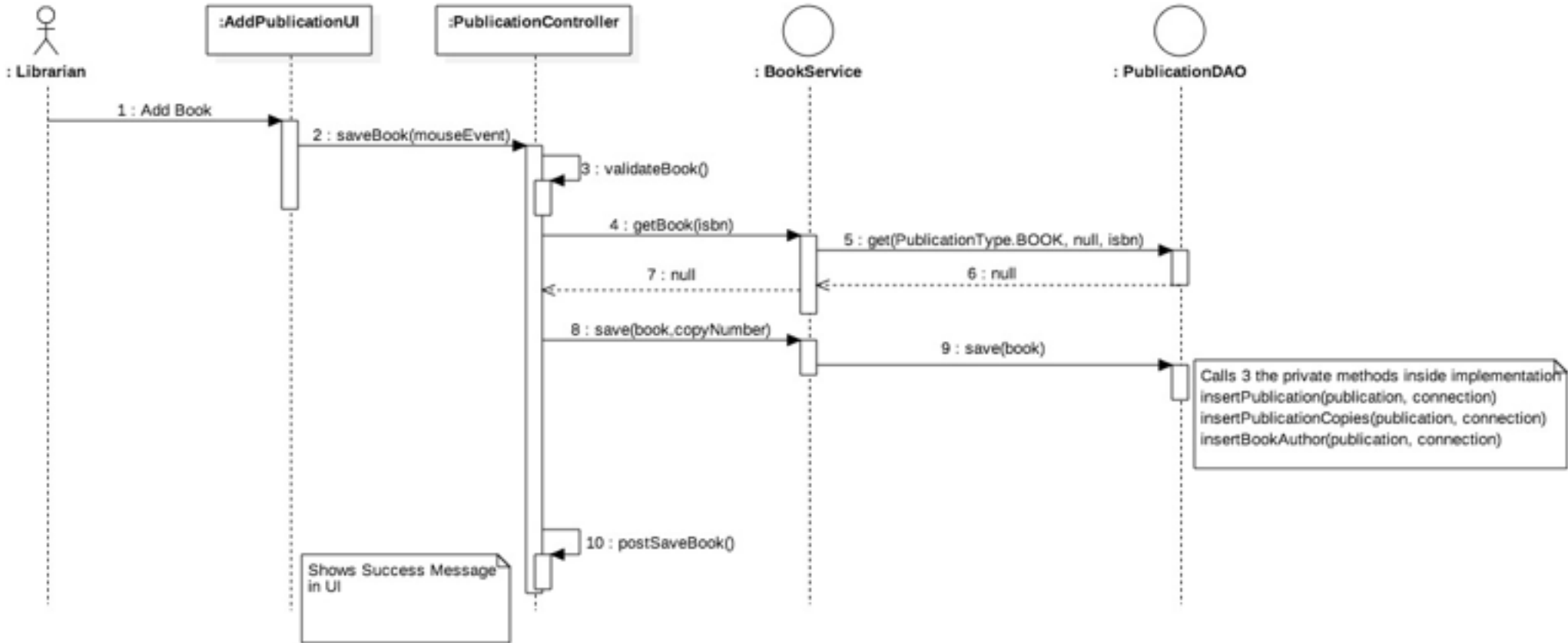
Add Library Member Diagram



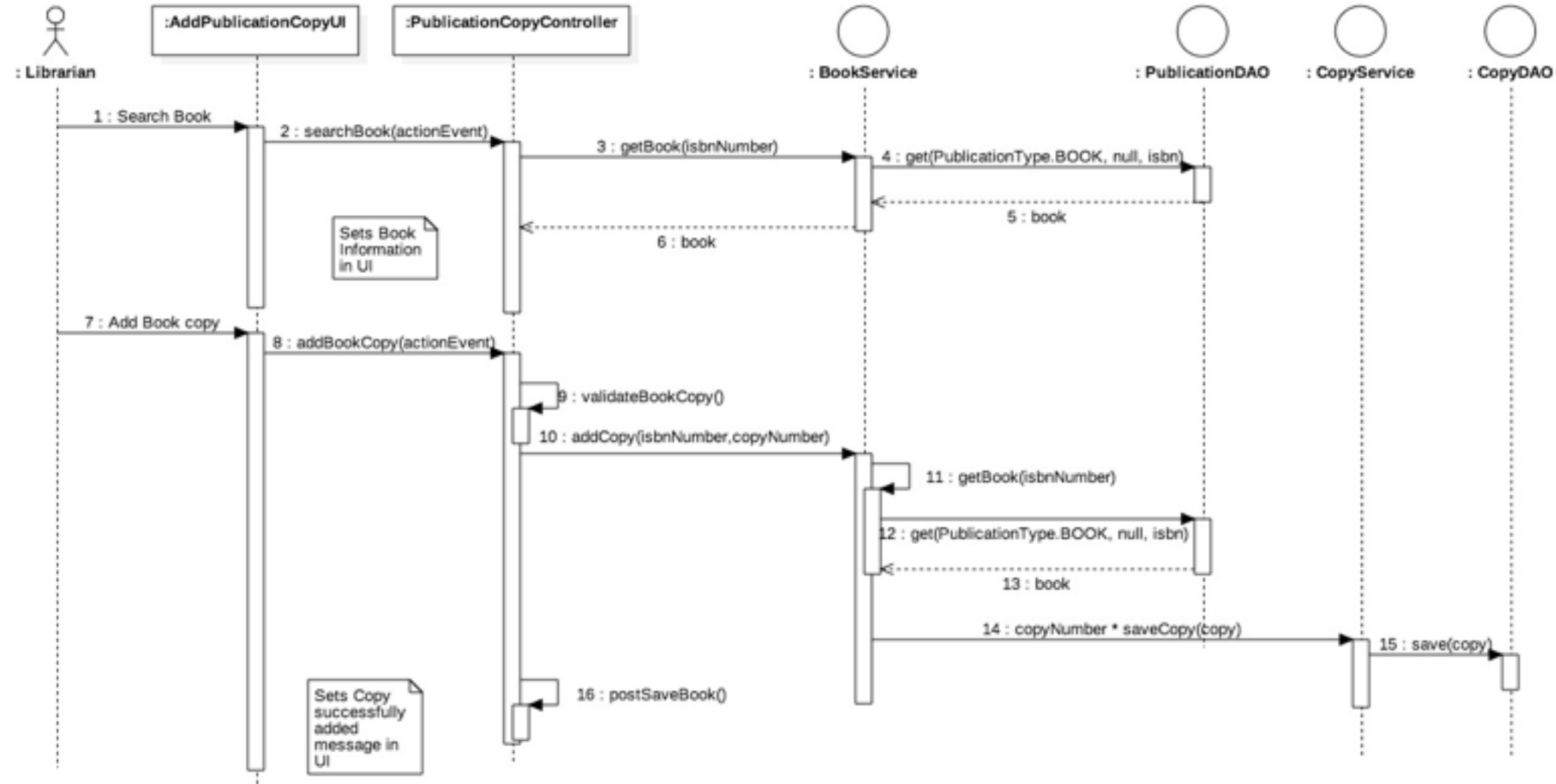
Search / Edit Library Member Diagram



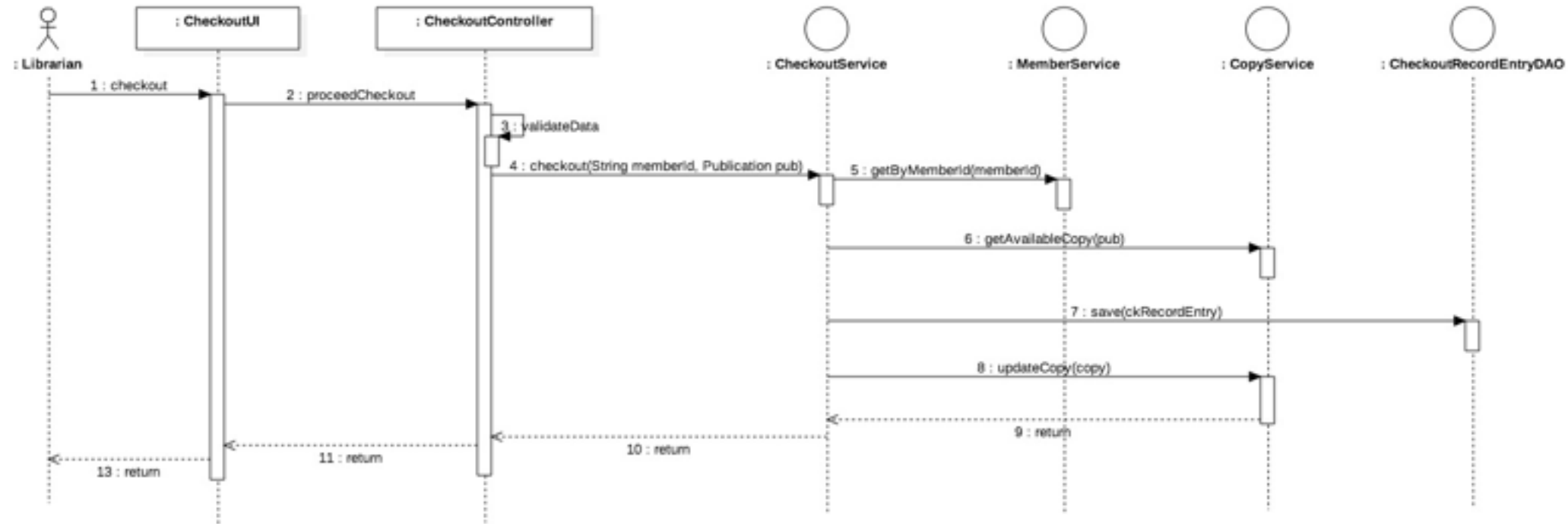
Add Publication Diagram



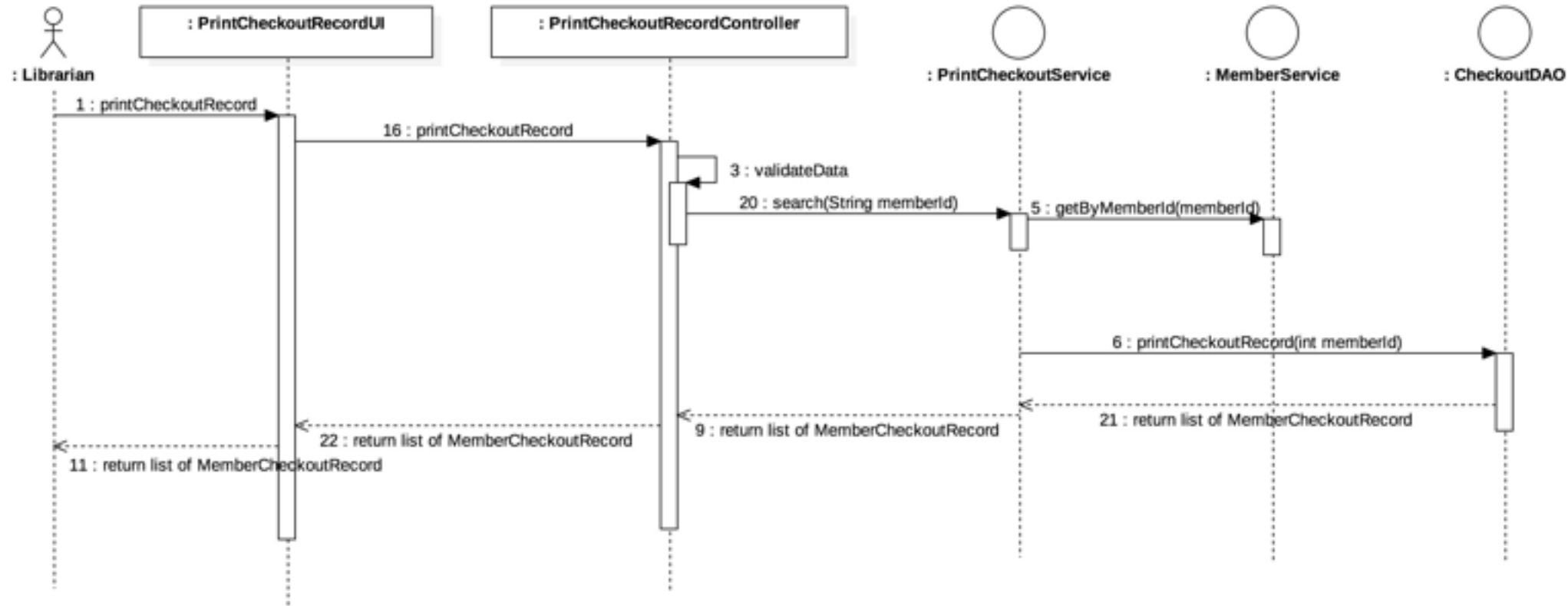
Add Copy of Publication Diagram



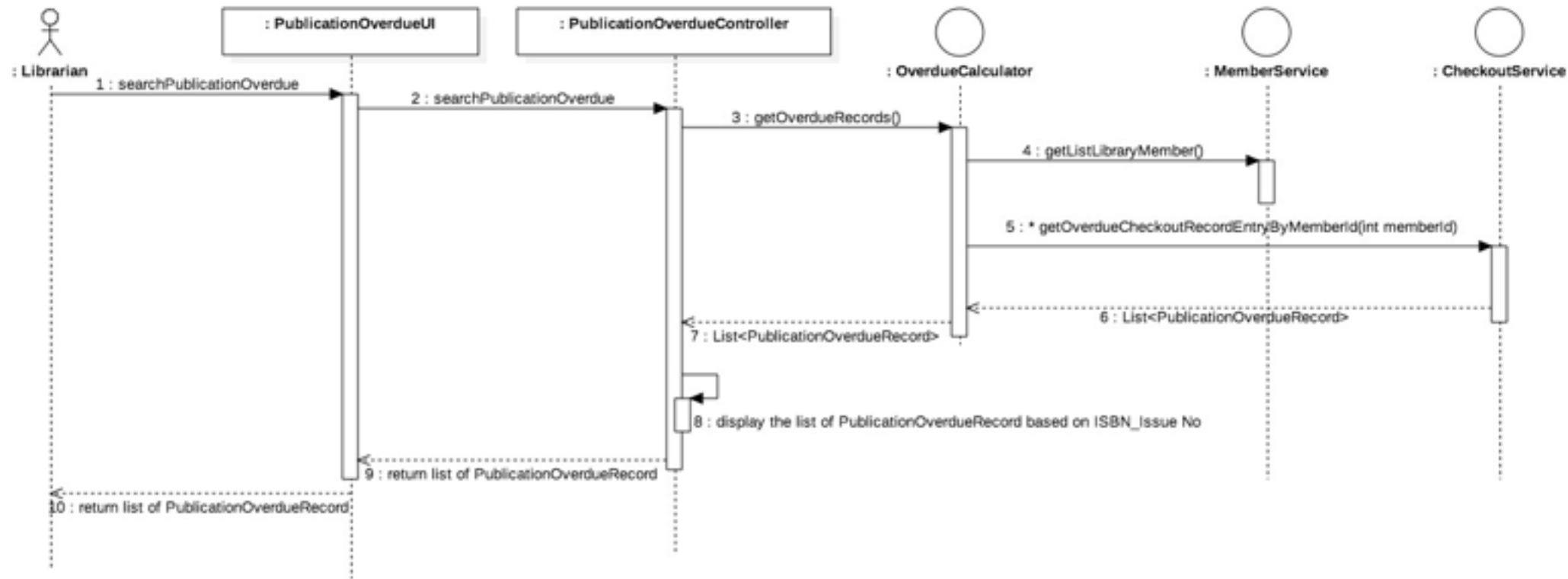
Checkout Publication Diagram



Print Checkout Record Diagram



Display Publication Overdue Diagram



Lambda Library

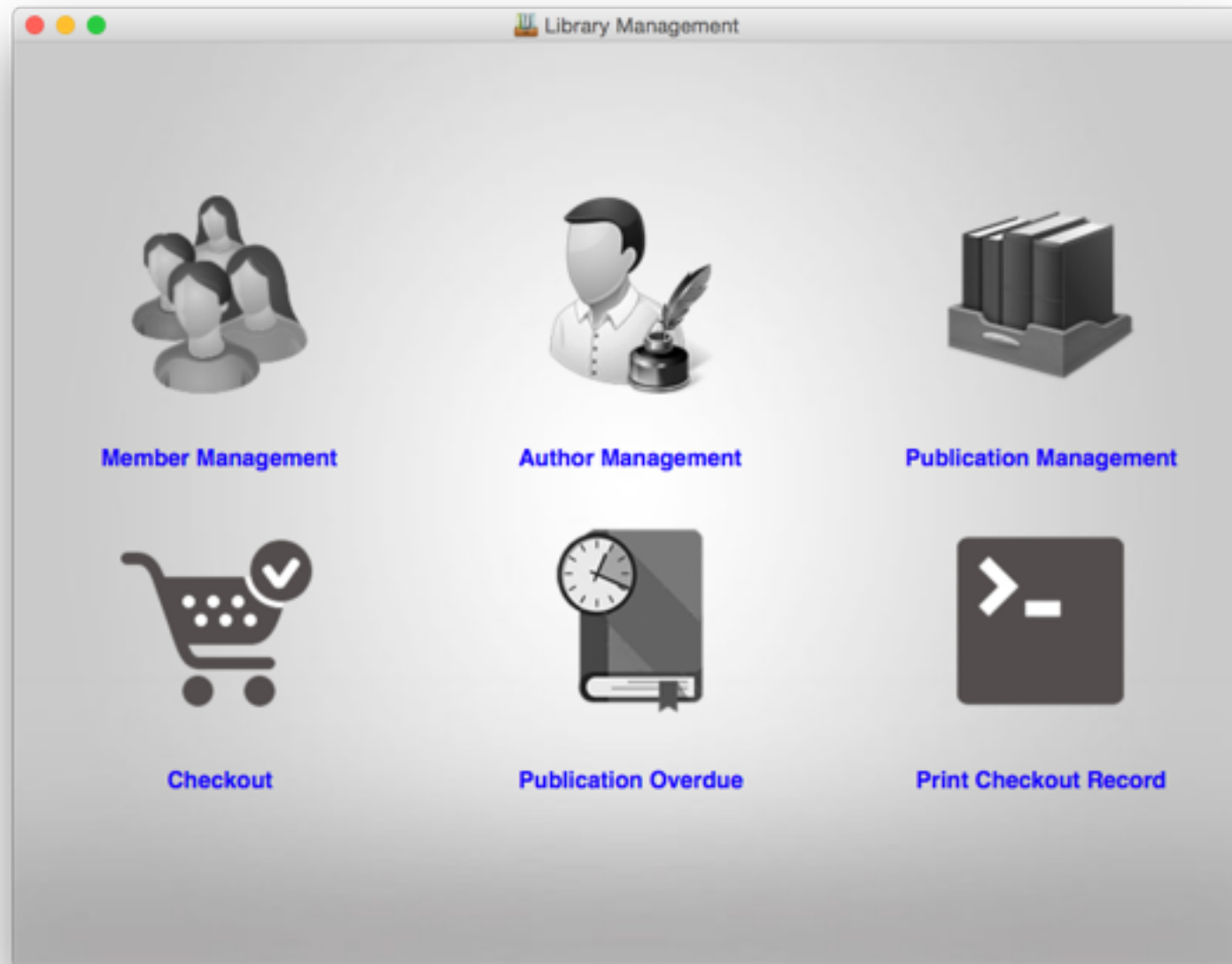
- **PUBLICATION_OVERDUE_RECORD_LAMBDA:** return the list of publication overdue records from checkout record entries.
- **PRINT_CHECKOUT_RECORD:** print to the console the list of checkout record for a specific member.
- **REGEX_MATCHER:** checks if provided String matches with provided regular expression.
- **PANE_TEXTFIELD_CLEANER:** clears text of every textfield inside provided pane.
- **GENERATE_LIST_OF_COPIES:** creates and returns list of copies with provided copy number.
- **FILTER_PUBLICATION_OVERDUE_RECORD:** filter overdue publication record by ISBN / issue number.



Limitations

- **Only support two types of publication: Book and Periodical**
- **Only librarian can checkout the publication**
- **Do not support authentication**
- **Transaction handling is only implemented at some screens**

Live Demo



Thank You!