# Use-cases

## [CT-1] Register a new member

### Actors

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian |

### Purpose and context

A person wants to borrow a book or several books from a local library. In order to do it he/she needs to become a member of this particular library.

### Dependencies

#### Included use-cases

None.

#### Extended use-cases

None.

### Assumptions and pre-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
|  | Person is not a member of a library yet. |

### Initiating business events

Person wants to become a member of a library.

### Basic flow of events

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian chooses the option “Register New Member” |
| 2. | Terminal displays the form “Register New Member” |
| 3. | Librarian enters the data of the future library member.   * First and Last name of a person; * Physical and email address . |
| 4. | Terminal displays that new member was registered in the system. |
|  |  |

### Alternative flows of events

|  |  |
| --- | --- |
| No. | Use-case step description |
| 4a. | Terminal displays that the user with the same data already signed up. |

### Extension points

|  |
| --- |
| Extension point condition |
| *Either steps or rather some conditions which unambiguously determine at which point the specific use-case may be extended.*  *It is recommended to use flexible condition so that the extending use-cases may be developed independently from the base use-case.* |
|  |

### Post-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | A new member has been successfully registered in the library system by the librarian. |

# Use-cases

## [CT-1] Issue Book

### Actors

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian |

### Purpose and context

A member of a library wants to borrow a book from a library so librarian need to register it in the system.

### Dependencies

#### Included use-cases

* Check Book Availability
* Verify Member

#### Extended use-cases

None.

### Assumptions and pre-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | A person borrowing a book is a member of a library |
| 2. | The book is available to be borrowed. |

### Initiating business events

A customer wants to borrow or reserve a book for a future pick up

### Basic flow of events

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | A person wants to borrow a book. |
| 2. | A librarian verifies the person borrowing a book. |
| 3. | The book is available in the library |
| 4. | Librarian issues the book for the member. |
|  |  |

### Alternative flows of events

#### Unable to verify member (a)

|  |  |
| --- | --- |
| No. | Use-case step description |
| 2a1. | Person is not registered in the library system. |
| 2a2. | Person needs to register in the system (UC 1 - Register a new member) |

#### Book not available (b)

|  |  |
| --- | --- |
| No. | Use-case step description |
| 3b1. | The book is not available in the library. |
| 3b1. | The use-case ends. |

### Extension points

|  |
| --- |
| Extension point condition |
| *Either steps or rather some conditions which unambiguously determine at which point the specific use-case may be extended.*  *It is recommended to use flexible condition so that the extending use-cases may be developed independently from the base use-case.* |
|  |

### Post-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian issued the book to the member. |

# Use-cases

## [CT-1] Return Book

### Actors

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian |

### Purpose and context

A member of a library wants to return a book to a library.

### Dependencies

#### Included use-cases

None

#### Extended use-cases

* Pay fine

### Assumptions and pre-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | A library member borrowed a book from the library. |

### Initiating business events

A library member wants to return a borrowed book to the library.

### Basic flow of events

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | A library member returns book to the library. |
| 2. | Book return date is not past due. |
| 3. | Librarian accepts the return. |
| 4. | The use-case ends |
|  |  |

### Alternative flows of events

#### Return date past due(a)

|  |  |
| --- | --- |
| No. | Use-case step description |
| 2a1. | Book return date is past due. |
| 2a2. | Librarian proceeds to process fine payment. |

### Extension points

|  |
| --- |
| Extension point condition |
| *Either steps or rather some conditions which unambiguously determine at which point the specific use-case may be extended.*  *It is recommended to use flexible condition so that the extending use-cases may be developed independently from the base use-case.*   * The Book was returned past its due time |
|  |

### Post-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | The book was successfully returned to the library. |

# Use-cases

## [CT-1] Reserve Book

### Actors

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian |

### Purpose and context

Librarian need to issue a reservation of a book for a library member.

### Dependencies

#### Included use-cases

* Check Book Availability
* Verify Member

#### Extended use-cases

None.

### Assumptions and pre-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | A person requesting a book is a member of a library |
| 2. | The book is available for a pick up. |

### Initiating business events

A person wants to borrow a book.

### Basic flow of events

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | A person wants to reserve a book. |
| 2. | A librarian verifies the person reserving a book is a library member. |
| 3. | The book is available in the library |
| 4. | Librarian issues the book reservation for the member. |
|  |  |

### Alternative flows of events

#### Unable to verify member (a)

|  |  |
| --- | --- |
| No. | Use-case step description |
| 2a1. | Person is not registered in the library system. |
| 2a2. | Person needs to register in the system (UC 1 - Register a new member) |

#### Book not available (b)

|  |  |
| --- | --- |
| No. | Use-case step description |
| 3b1. | The book is not available in the library. |
| 3b1. | The use-case ends. |

### Post-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian succesfully reserved a book for a library member |

# Use-cases

## [CT-1] Add Book

### Actors

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian |

### Purpose and context

A new book arrived to library and it needs to be added to library system.

### Dependencies

#### Included use-cases

None.

#### Extended use-cases

None.

### Assumptions and pre-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | The books ISBN is unique within the system |

### Initiating business events

Updating/maintain library

### Basic flow of events

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | New books arrive to a library |
| 2. | Librarian add new books to the system. |
| 3 | The use-case ends. |
|  |  |

### Alternative flows of events

### Post-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian successfully added new book to library system. |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 6. Use-cases6.1 [CT-1] Delete Book6.1.1.Actors  |  |  | | --- | --- | | No. | Use-case step description | | 1. | Librarian |  6.1.2. Purpose and context Keeping the library up to date. 6.1.3. Dependencies6.1.3.1 Included use-cases None. 6.1.3.2. Extended use-cases None. 6.1.3. Assumptions and pre-conditions  |  |  | | --- | --- | | No. | Use-case step description | | 1. | The book is not currently reserved or borrowed by someone |  6.1.4. Initiating business events Updating/maintaining library system 6.1.5. Basic flow of events  |  |  | | --- | --- | | No. | Use-case step description | | 1.  2. | A book does not exist in the library.  Librarian verifies the book is not borrowed or reserved by  Library member | | 3. | Librarian deletes the books from the library system. | |  |  |  6.1.6. Alternative flows of events  |  |  | | --- | --- | | No. | Use-case step description | | 3. | The book is currently reserved or borrowed |  6.1.7.Post-conditions  |  |  | | --- | --- | | No. | Use-case step description | | 1. | Librarian deleted the book from the system successfully. | |

# 7. Use-cases

## 7.1. [CT-1] Edit Book

### 7.1.1 Actors

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian |

### 7.1.2 Purpose and context

Keeping the library up to date.

### 7.1.3 Dependencies

#### 7.1.3.1 Included use-cases

None.

#### 7.1.3.2 Extended use-cases

None.

### 7.1.4 Assumptions and pre-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | The book exists in library |

### 7.1.5 Initiating business events

Updating/maintaining library system

### 7.1.6. Basic flow of events

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | A book information needs to be updated |
| 2. | Librarian verifies the book exists in the system |
| 3  4. | Librarian updates book information  The use-case ends. |
|  |  |

### 7.1.7 Alternative flows of events

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | The book doesn’t exist in the system |
| 2 | The use-case ends. |

### 7.1.8 Post-conditions

|  |  |
| --- | --- |
| No. | Use-case step description |
| 1. | Librarian successfully modified book information. |