For reader:

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**Use case name**: Find book

**Summary:** Reader(s) enter the properties of the book needed to find and the system will display the books satisfieds (or nothing if there is not one satisfied).

**Actor:** Reader

**Precondition:** None

**Main sequence:**

1. Reader provides the properties of the book need.

2. The system finds in database if there are such books.

3. The system displays the list of books satisfieds.

**Alternative sequence:**

**Step 3:** If there are no such book, the system displays the message that there are not any books satisfied and return to the home page of finder

**Postcondition:** The system has return to the home page.

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**Use case name**: Borrow book

**Summary:** Reader has the id of book and does the request for borrow it.

**Actor:** Reader

**Dependency:** Include Create/Renew reader card use case

**Precondition:** Reader has to have the id of book and the display is in borrow entry.

**Main sequence:**

1. Reader provides the book is.

2. The system checks if the book ids are valid.

3. If there are some book ids valid, the system ask reader to provide valid card information or create/renew card.

4. If the reader has a valid card, he/she provides authorization information.

5. System check if the reader card is expired or not.

6. If the reader card is valid, the system checks if the sum of the number of books borrowed and the books needed to borrowed is lower than 5.

7. If sum of the number of books borrowed and the books needed to borrowed is lower than 5, system display the success message.

8. System send a signal to the cashier and the reader go there to receive books.

**Alternative sequence:**

**Step 3:** If there are not valid book ids, system display the message error and return to the home page.

**Step 4:** If the reader does not have, he/she has to create a card. If the reader has expired card, he/she has to renew it. If no, the system displays the error and return to home page.

**Step 5:** If the reader card is invalid, he/she has to create/renew it. If no, the system displays the error and return to home page.

**Step 7:** If the total number of books is equal of greater than 5, system display the error and the reader has to delete some books from the list (Give it back to the library). If no, the system displays the error and return to home page.

**Postcondition:** The system has return to the “borrow” entry home page.

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**Use case name:** Give book back

**Summary:** The reader gives the books borrowed back to the library.

**Actor:** Reader, Administrator

**Precondition:** The system displays the “give back” entry.

**Main sequence:**

1. The reader provide the id of books needed to give back.

2. The system check if the book ids provided are valid or not.

3. If the book ids are valid, the administrator provide the information for authorize the giving back process.

4. The system check if the information provided is valid or not.

5. If the information is valid, the system displays a success message, and reader gives the books back to the administrator.

**Alternative sequence:**

**Step 3:** If there are not any valid book ids, the system displays an error message and return to the “give back” entry home page.

**Step 5:** If the administrator card is invalid or expired, the system displays an error message and return to the “give back” entry home page.

**Post condition:** The system has return the “give back” entry home page.

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**Use case name:** Create account

**Summary:** The reader wants to create or renew a reader card.

**Actor:** Reader

**Precondition:** The system displays the “create” entry home page.

**Main sequence:**

1. The reader provides the information according to the guide of system.

2. The system authorizes if the information is right in student/teacher database of school.

3. If the information is true, the system displays success message, and send a signal to the cashier.

4. Reader has to pay for card creation at the cashier.

**Alternative sequence:**

**Step 3:** If there are some false information, system displays the error message and ask reader to provide again. If no, system return to the “create” home page.

**Post condition:** The system has return the “create” entry home page.

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**Use case name:** Renew account

**Summary:** The reader wants to renew a reader card.

**Actor:** Reader

**Precondition:** The system displays the “renew” entry home page.

**Main sequence:**

1. The reader provides the information according to the guide of system for account authorization.

2. The system authorizes if the information is right (according to the information of last account).

3. If the information is true, the system displays success message, and ask the reader to manipulate some information or not.

4. If the reader does not manipulate anything, the system displays the success message and send a signal to the cashier.

5. Reader has to pay for card renew at the cashier.

**Alternative sequence:**

**Step 3:** If there are some false information, system displays the error message and ask reader to provide again. If no, system return to the “renew” home page.

**Step 4:** If the reader wants to change some information, he/she provides it to system, the system then displays the success message and send a signal to the cashier.

**Post condition:** The system has to return the “renew” entry home page.