

High Level Design Phase

Refining Use Cases
User Interface Information

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Detailed Use Cases

- ✿ Design (refine) your user interfaces following guidelines given in class (and textbook)
- ✿ Based on your refined user interfaces, add more user interface details to your use cases: Update your use cases to include new User interface information

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Check in Resource

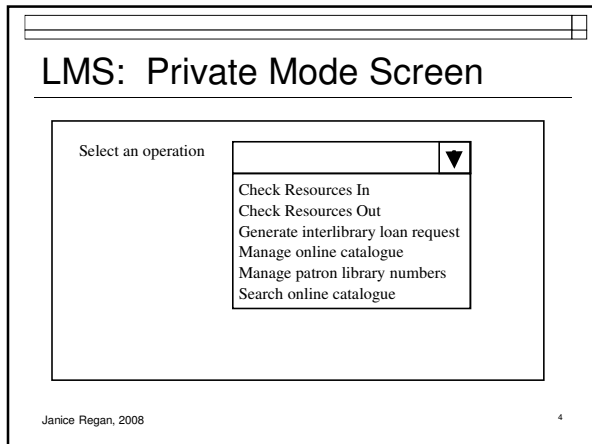
A. Use Case Name : CheckInResource (Fcn. Req. #7)

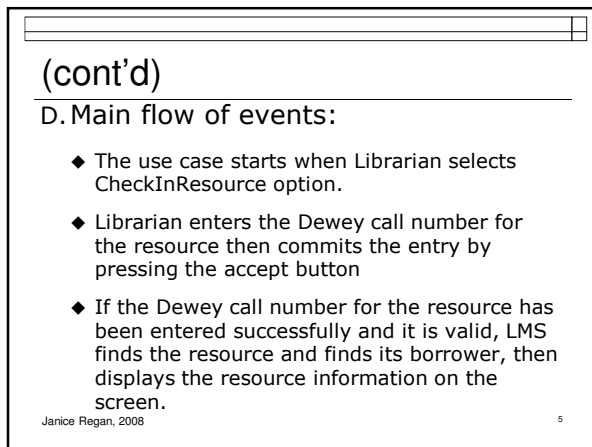
B. Participating actors: Librarian

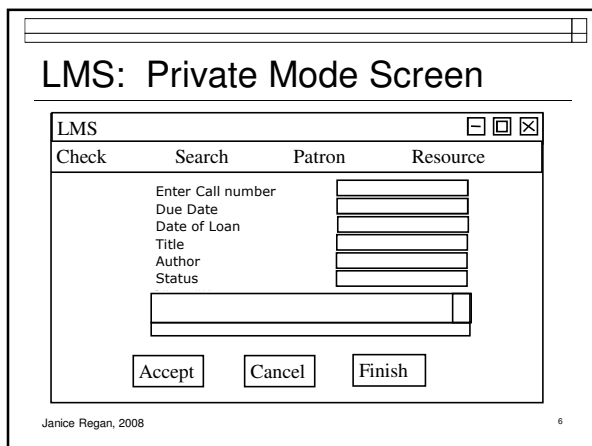
C. Preconditions:

- ◆ Librarian is a valid librarian
- ◆ LMS is ready to go (DB has been populated and LMS has been initialized)
- ◆ Initial Option screen displayed (e.g. see next slide)

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(cont'd)

D. Main flow of events: (cont)

- ◆ The DetermineOverdueCharge use case is initiated.
- ◆ LMS verifies that there is no outstanding request for this resource.
- ◆ If there are no outstanding request for this resource, LMS changes the status of the resource to "reshelve" and cancels its "due date" and "date of loan" (perhaps updates "date of return").
- ◆ LMS updates the screen showing the newly checked-in resource along with the updated dates.
- ◆ The use case terminates when Librarian indicates that she/he is done by pressing the finish button.

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(cont'd)

E. Postconditions:

- ◆ If the use case was successfully executed:
 - ☞ Patron record updated to reflect the newly checked in resource.
 - ☞ Resource record updated to reflect its checked in status and dates.
- ◆ Back to initial Option screen.

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(cont'd)

F. Exceptional flow of events:

- ◆ Exceptional flow of events #1
 - ☞ If the Dewey call number was entered incorrectly, LMS states so in a pop up window and the use case terminates.
- ◆ Exceptional flow of events #2
 - ☞ If the Dewey call number entered is invalid (does not exists in LMS DB), LMS states so in a pop up window and the use case terminates.

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(cont'd)

F. Exceptional flow of events:

◆ Exceptional flow of events #3

☞ If there is an outstanding request for this resource, LMS changes the status of the resource to "requested", cancels its "due date" and "date of loan" (perhaps updates "date of return"), updates the screen showing the new state of the resource.

☞ The librarian presses finish and the use case terminates.

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Refine the Use Case

⚙ Main flow of events:

- ◆ The use case starts when Librarian selects CheckInResource option.
- ◆ Librarian enters the Dewey call number for the resource then commits the entry.
- ◆ ...

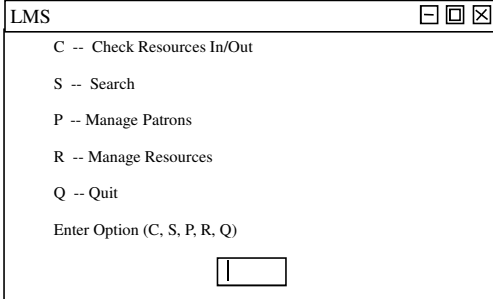
⚙ Another interface, refine the same use case:

☞ SHOWN ON NEXT SLIDE

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LMS: Private Mode Screen



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Revising CheckInResource Use Case

✿ Main flow of events:

- ◆ The use case starts when Librarian selects CheckInResource option from the LMS menu screen by entering the letter 'C' in the text field provided then pressing the "Enter" key.
- ◆ The Check In/Out selection form is then displayed. The Librarian selects the In option by double clicking on the menu box item

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LMS: Private Mode Screen

LMS

Check Search Patron Resource

In
Out
Availability

Prev Screen Quit

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Revising CheckInResource Use Case

✿ Main flow of events:

- ◆ A window representing a Check In Form is then displayed. The Librarian types the Dewey call number for the resource in the appropriate text field then presses the "Accept" button to commit the entry.
- ◆ ...

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LMS: Private Mode Screen

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Questions about UI?

- ✿ Who decides what type of user interface should be implemented for a software system?
- ✿ ALWAYS make sure the user wants the type of user interface you are designing. Client request for a GUI or CLI is a nonfunctional requirement!!

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Starting you User Manual

- ✿ Once you have designed (refined) your user interfaces and have refined your use cases, you can start on your User Manual
- ✿ Note that some of the sections of Deliverable #6 (User Manual) can be started while you are designing (refining) your user interfaces and refining your use cases

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