**CSE 471**

**Student ID: Name:**

**Use Case: Check Out Books**

**Primary Actor:** Worker

**Stakeholders and Interests**:

- Worker: wants fast, and easy check out of books.

- Patron: wants fast check out, and does not want to be charged for books they did not check out.

- Library: wants fast check out of books, and wants to make sure that all books that leave the library have

been checked out. Wants to allocate books fairly.

- Government: wants to protect investment in books and keep costs down. Wants to promote learning and

citizen happiness.

**Preconditions**: The Worker has been authenticated.

**Success Guarantee (Postconditions)**: The System remembers that the Patron has checked out the books.

**Main Success Scenario (or Basic Flow):**

1. The Worker tells the System the identity of a patron who wishes to check out books.

2. The System confirms that the patron is allowed to check out books, and remembers the patron's identity.

3. The Worker tells the system the identity of a book this patron is checking out.

4. The System confirms that the book can circulate, calculates the due date based on whether the patron is

a faculty member or a student, and records that the patron has checked out this book, which is due on the

calculated due date, and makes that information available from the library catalog.

5. The System tells the Worker the due date (which also confirms that the book has been checked out).

*The Worker repeats steps 3-5 until indicates done.*

**Extensions (or Alternative Flows):**

2a. If the patron is not allowed to check out books because they have violated some library policy (for

example, if the patron has not paid their university bill or library fines):

1. The System tells the Worker that the patron is not allowed to check out books and the reason for this

prohibition.

2. The use case ends.

4a. If the book that is being checked out is non-circulating:

1. The System tells the Worker why the book is non-circulating.

2. The use case continues from step 3 in the main success scenario.

**Special Requirements**

- There are different due dates depending on the kind of patron one is dealing with. For example, faculty

can take out books for the whole academic year, whereas students can only take them out for a limited time.

- The System must respond to the Worker, at least giving some progress indication, within 3 seconds, 95% of the time.

- Workers are experts, because they use the system continuously, so the interface should have minimal

interaction and should minimize the physical effort involved; for example, workers should not have to be

prompted.

- Displays for the worker should be visible from one meter away.

**Technology and Data Variations List:**

3a. Barcode scanners are normally used to identify books.

3b. Books without barcodes have to be entered manually.

**Frequency of Occurrence**: nearly continuous.

Draw the Use-Case diagram of the above scenario.

Solution

