Computer Science 3053

Human-Computer Interaction

Assignment 7

Using Google Web Toolkit (GWT), develop a web application for a simple TODO application.

0.1 Project Restrictions

Your application must:

1. Be written in GWT and be comprised of only Java GWT code and any CSS necessary to style the application (set colors, fonts, sizes) and HTML necessary for static content.
2. Be demonstrated in office hours or special appointment in order to be graded.
3. All TODO tasks (or the count of them) must be tracked by "the server" such that the total number of existing TODOs is displayed to all users (e.g. like the McDonald's "1 million served" counter/tracker the UI should display a counter of the number of TODOs existing in the system across all users). This means if you open two web browsers and go to your application, although they can't see one another's TODO tasks, they know how many TODO tasks all users of the system have input.

0.2 Use Cases

Name	Enter a TODO
Description	User enters a new TODO task into the application.
Actor(s)	User
Events/Actions	1. User opens application. 2. User enters description of new task as text into input control. 3. Optionally, user enters task due date as a date. 4. User submits creation of new task using submission control. 5. User is shown a list of current TODO tasks including the newly entered task as the "most recent" task displayed in a conveniently viewable place (e.g. as the top-most task in the list). Tasks shown include the task description, creation date (not user-selectable during creation), due date (if one was given), and whether the task is completed/done.
Special Requirements	Initially, no tasks exist for a user. Due dates must be given as a future day/time. Invalid (past) dates should be denied and an appropriate error given to the user.

Name	Mark a TODO as "Done"
Description	User marks an existing TODO task as being "done".
Actor(s)	User
Events/Actions	1. User opens application. 2. User identifies a task and selects the control to mark the task as "done".
Special Requirements	Tasks may also be marked "un-done" if they were marked "done" in error by the user. The process is the same.

Name	Clear all "done" TODO tasks
Description	User removes all tasks marked "done" with a single UI control.
Actor(s)	User
Events/Actions	1. User opens application. 2. User selects the control to clear/remove all TODO tasks marked as "done". 3. UI should clear away all TODO tasks which were marked as "done".
Special Requirements	Cleared/removed "done" tasks are removed from the system and are not recoverable. This means the counter of number of TODO tasks in the system (across all users) may be reduced.
Post-Condition	No tasks in the system (i.e. shown in the UI) are marked as "done".

0.3 Due Date

You must complete the assignment by Tuesday, April 12 at 12:00 PM (noon) and submit the source code (not compiled class files, nor a JAR or ZIP) on D2L in the appropriate DropBox. If you use third-party JAR libraries, those must be submitted also.

Additionally, you must arrange to come to office hours (or setup an appointment at another time) in order to demonstrate your program [on your own laptop] and answer a few brief questions.

Some extra credit can be granted for creative extensions to the basic requirements listed above. Extra credit will not be awarded for simple creative styling (e.g. use of themed images).