Activity Diagrams – Acceptance Test
Client: Dr. Darren Lim, Assistant Professor

Project: Java Online Learning Tool (J.O.L.T)

Delivered by: 518 Interactive
Team Members:
Erik Stegmann
Lawrence Gregory
Christopher Hughto
Connor Vander Bogart
Jedidiah Turnbull

Revision: 1.0
Date: 4/26/10
## Contents

1. Activity Diagrams .............................................................................................................. 1
2. “A1” – Attempt Solution ..................................................................................................... 2
3. “A2” – Select Problem ......................................................................................................... 3
4. “A3” – Select Problem Set ................................................................................................. 4
5. “A4” View Gradebook for Faculty, Course Coordinator, and Administrator .......... 5
6. “A5” View Gradebook for Students .................................................................................. 6
7. “A6” – Self Registration ..................................................................................................... 7
8. “A6” – Self Registration Level 2 ........................................................................................ 8
9. “A7” – Edit Profile ............................................................................................................... 9
10. “A8” – Authentication ...................................................................................................... 10
1 Activity Diagrams

Activity Diagrams are a UML (Unified Modeling Language) specified diagram which shows workflows of stepwise activities and actions, with support for choice, iteration, and concurrency. It outlines the process that Actors (both human and non-human) go through while interacting with the System to accomplish a specific task. The following constructs are used to build Activity Diagrams. A key is provided at the bottom of this page for clarity.

Activity: Activity Building Blocks are the processes that the System and/or Actor goes through to accomplish an activity. Activity Building Blocks are represented as rectangles within the diagram. The rectangles have descriptive text within, which outlines what gets accomplished at each step.

Time Event: A Time Event represents a wait period. It is a “pause” in the activity for a specified amount of time.

Flow: The Flow is depicted as a unidirectional arrow. The Flow designates the direction and order that the activity takes place in.

Join: The Join is depicted as a thick, solid line. The Join is used purely for aesthetics. It improves the readability of the diagram by associating multiple flows to a particular object, such as a Final Node or Decision.

Initial Node: The Initial Node is represented as a solid circle. The Initial Node defines the entry point of the Activity. All Activities always start at the Initial Node.

Final Node: The Final Node is represented as a solid circle encased in another circle. The Final Node defines the exit point of the Activity. All Activities end at the Final Node. There may be multiple ways of reaching the Final Node within each activity.

Decisions: Decisions are represented as a diamond within the diagram. Decisions are typically conditional constructs, where different computations or activities are performed depending on the condition. Decisions have two or more Flows coming out of them, with each flow labeled to identify which to follow based on the condition.

Decisions are also used within Activity Diagrams to join two or more Flows together. Multiple Flows may join together if they all lead to the same activity.
2 “A1” – Attempt Solution

This Activity Diagram represents how a student solution is accomplished in the system.
3  “A2” – Select Problem
This diagram represents how a problem is selected within a problem set by a Student.

Student navigates to Problem Set Overview Screen

Student Clicks On Problem Name
4 “A3” – Select Problem Set
This diagram represents how a problem set is selected for a Student user.

- Student Visits Course Homepage
- Student Clicks on "View Active Assignments"
- Student Selects Problem Set to work on.
- System compiles attempt
5 “A4” View Gradebook for Faculty, Course Coordinator, and Administrator

This diagram shows how the gradebook is used within the system for all users except students.
6 “A5” View Gradebook for Students
This diagram shows how the gradebook is used within the system for students.
7  “A6” – Self Registration
This diagram shows how Student users register with the system.

- Ask the system to register a new student
- Student enters their information
- Student verifies information

[Incorrect Information] [Correct Information]

- System rejects new user creation
  - Ask student to re-enter information
- System creates new user
  - System sends email confirmation
8 “A6” – Self Registration Level 2

This diagram shows how Student users register with the system in more detail.

User enters their information into text fields.

- Email
- Confirm Email
- First Name
- Last Name
- Graduating Year
- Security Answer
- Security Question
- Password
- Confirm Password

Compare Email field to Confirm Email Field

[Both fields don't match] [Both fields match]

Check if all fields are entered

[Empty Fields] [No Empty Fields]

Check if all fields are valid

[All Valid Fields] [One or more invalid fields]

Store fields in database as inactive account

Send account activation email to email address provided in email fields
9  “A7” – Edit Profile
This diagram shows how all users edit their profile within JOLT.
10 "A8" – Authentication
This diagram shows how users authenticate with the System.