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

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

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Contents

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.
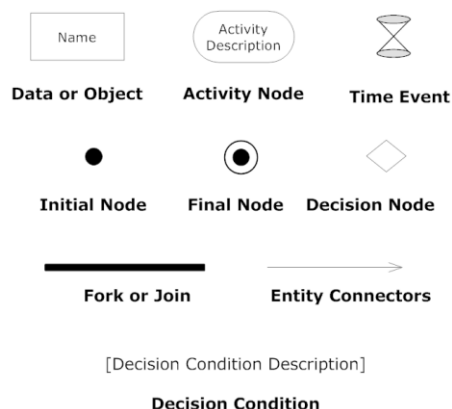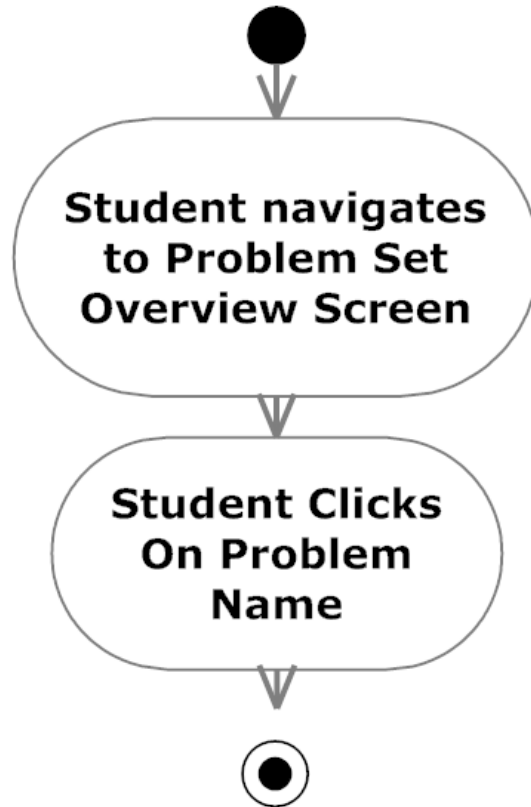
2 "A1" – Attempt Solution

This Activity Diagram represents how a student solution is accomplished in the system.
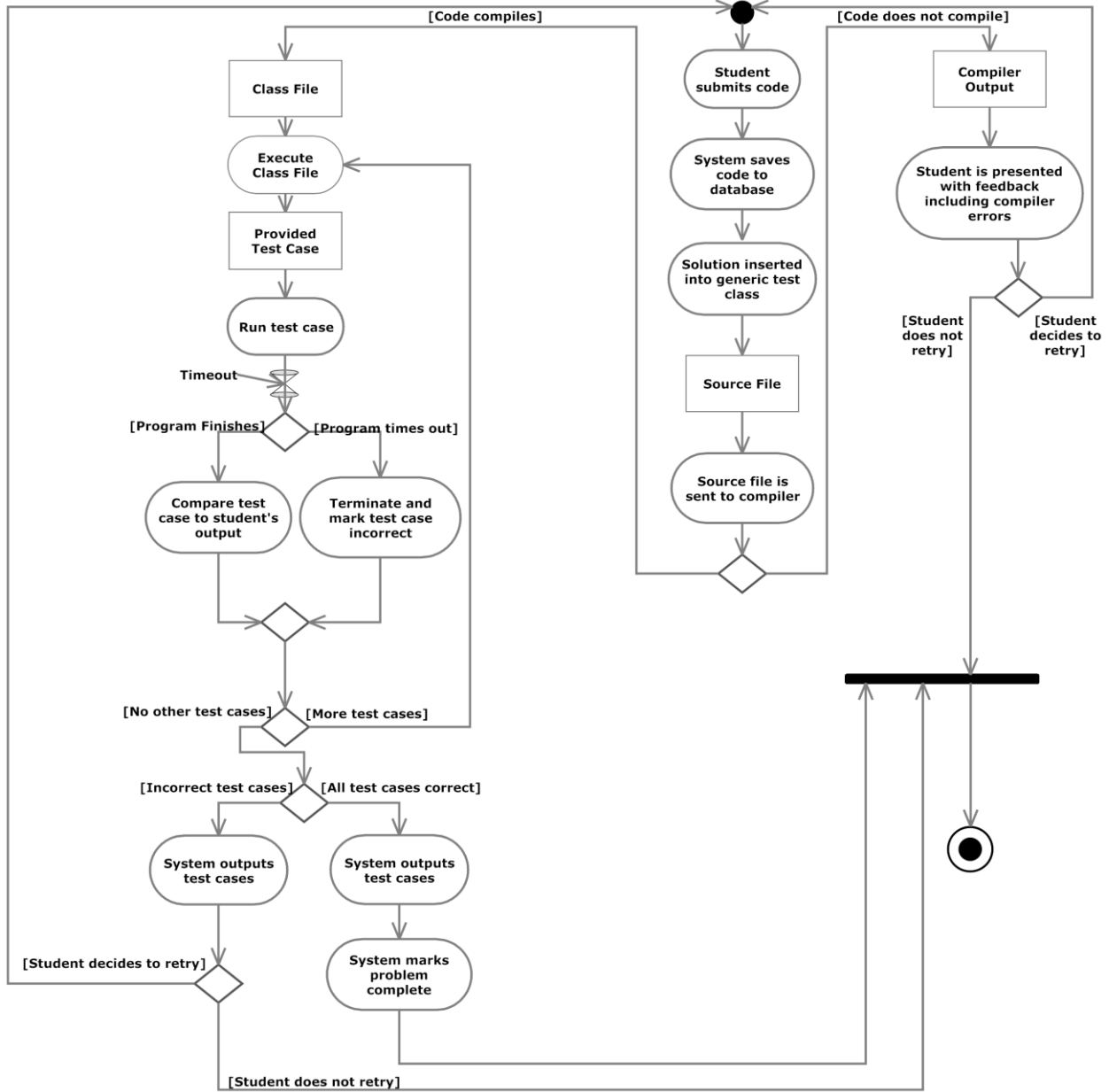
3 "A2" – Select Problem

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

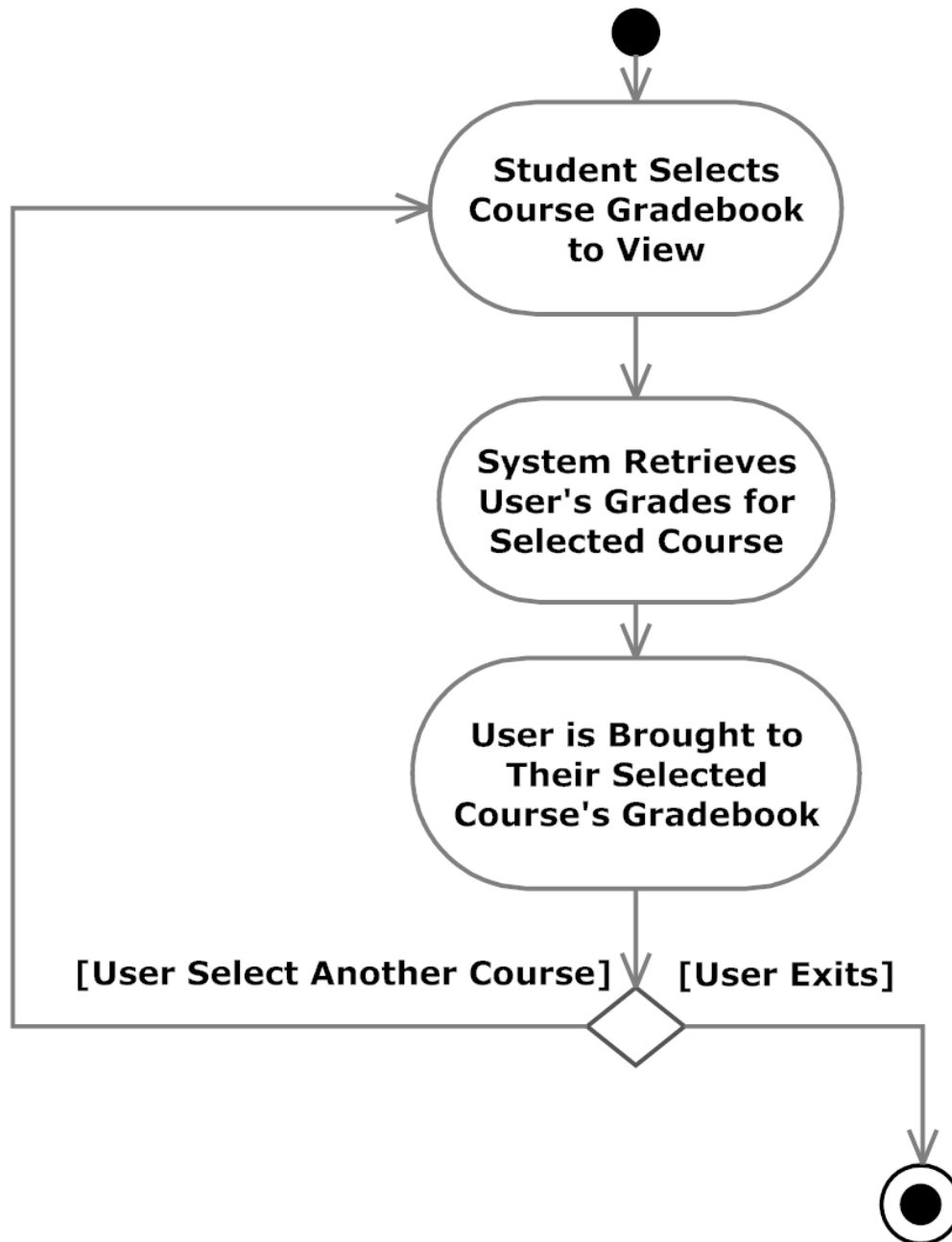This diagram represents how a problem set is selected for a Student user.
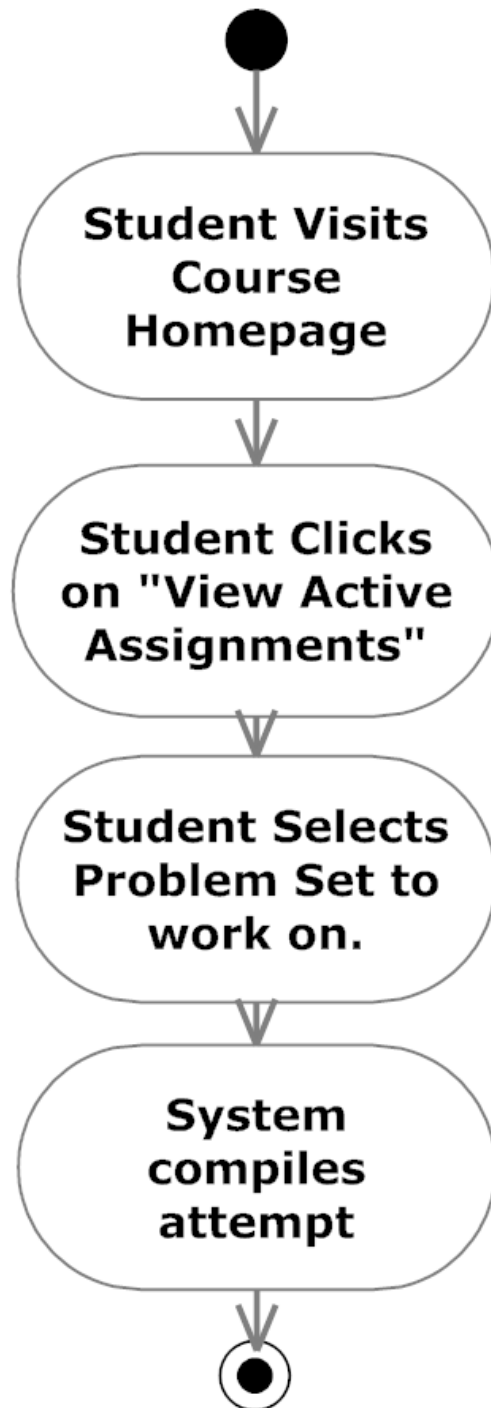
5 "A4" View Gradebook for Faculty, Course Coordinator, and Administrator

This diagram shows how the gradebook is used within the system for all users except students.
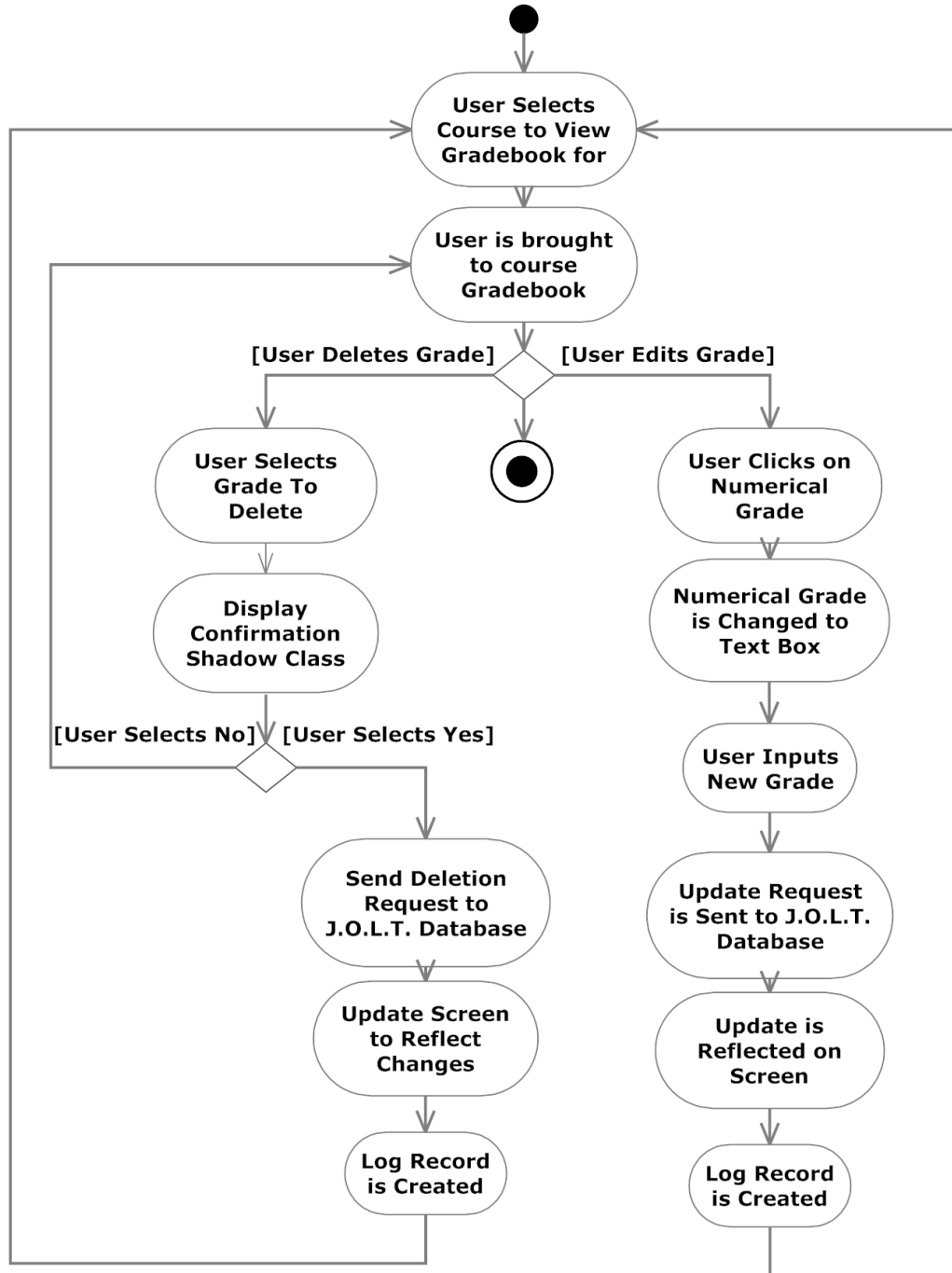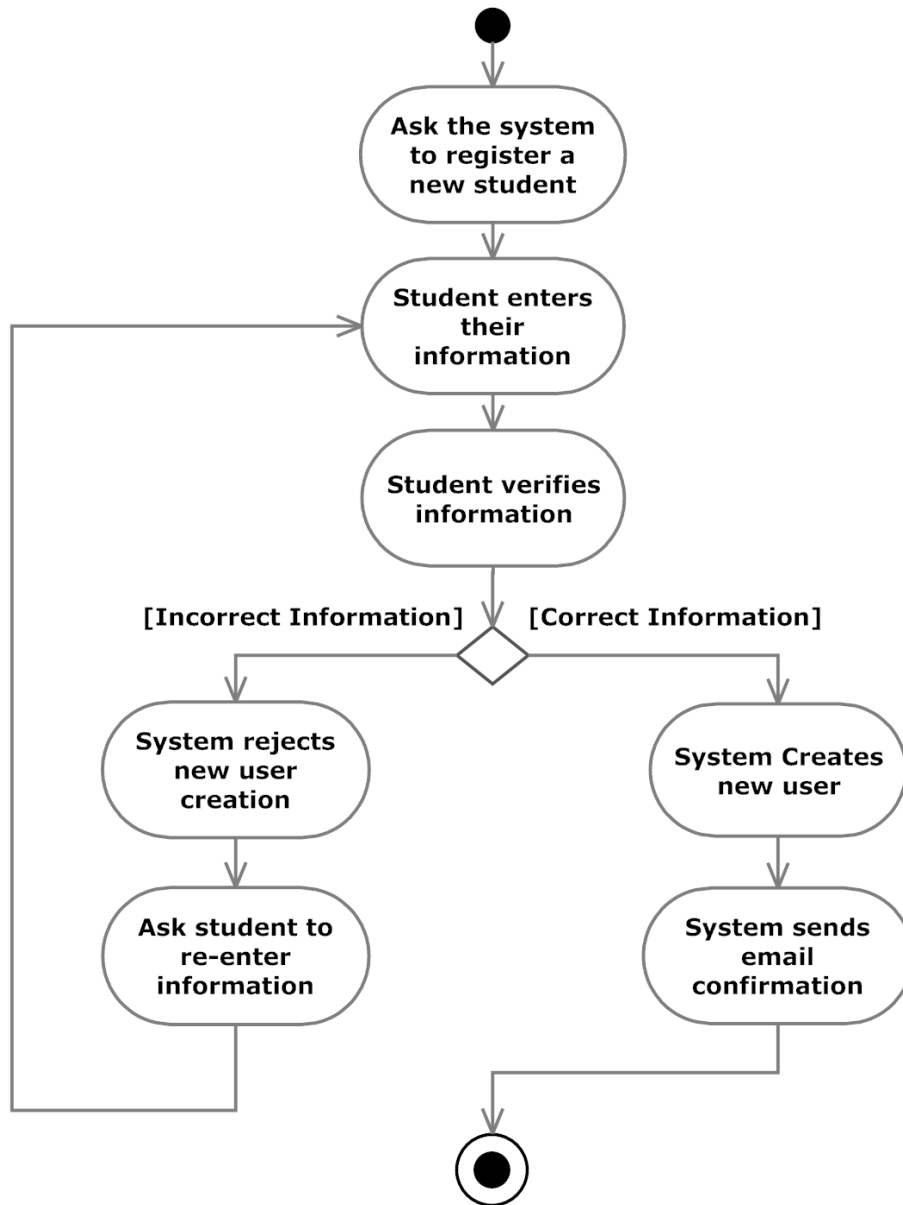
6 "A5" View Gradebook for Students

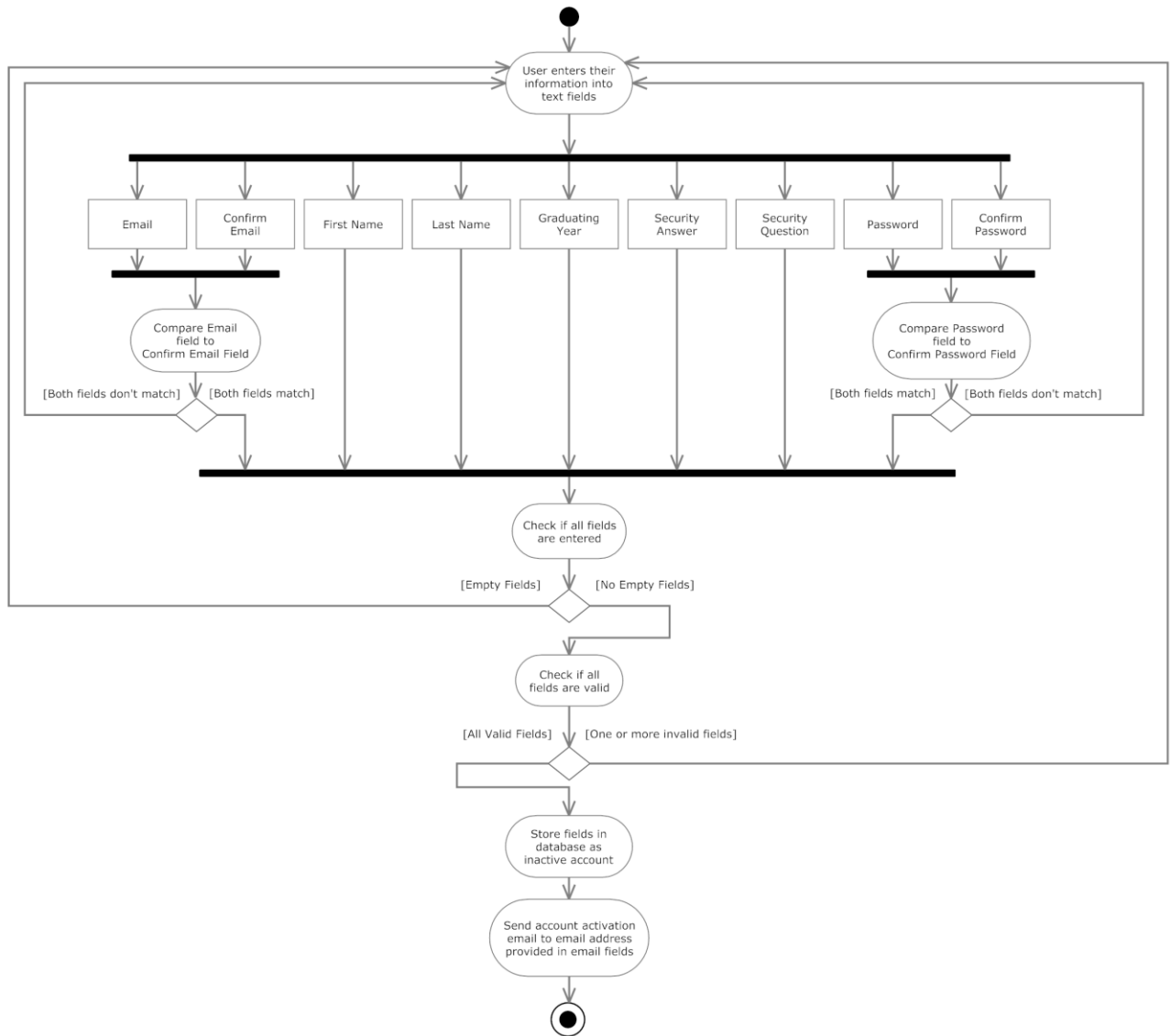This diagram shows how the gradebook is used within the system for students.

7　"A6" – Self Registration

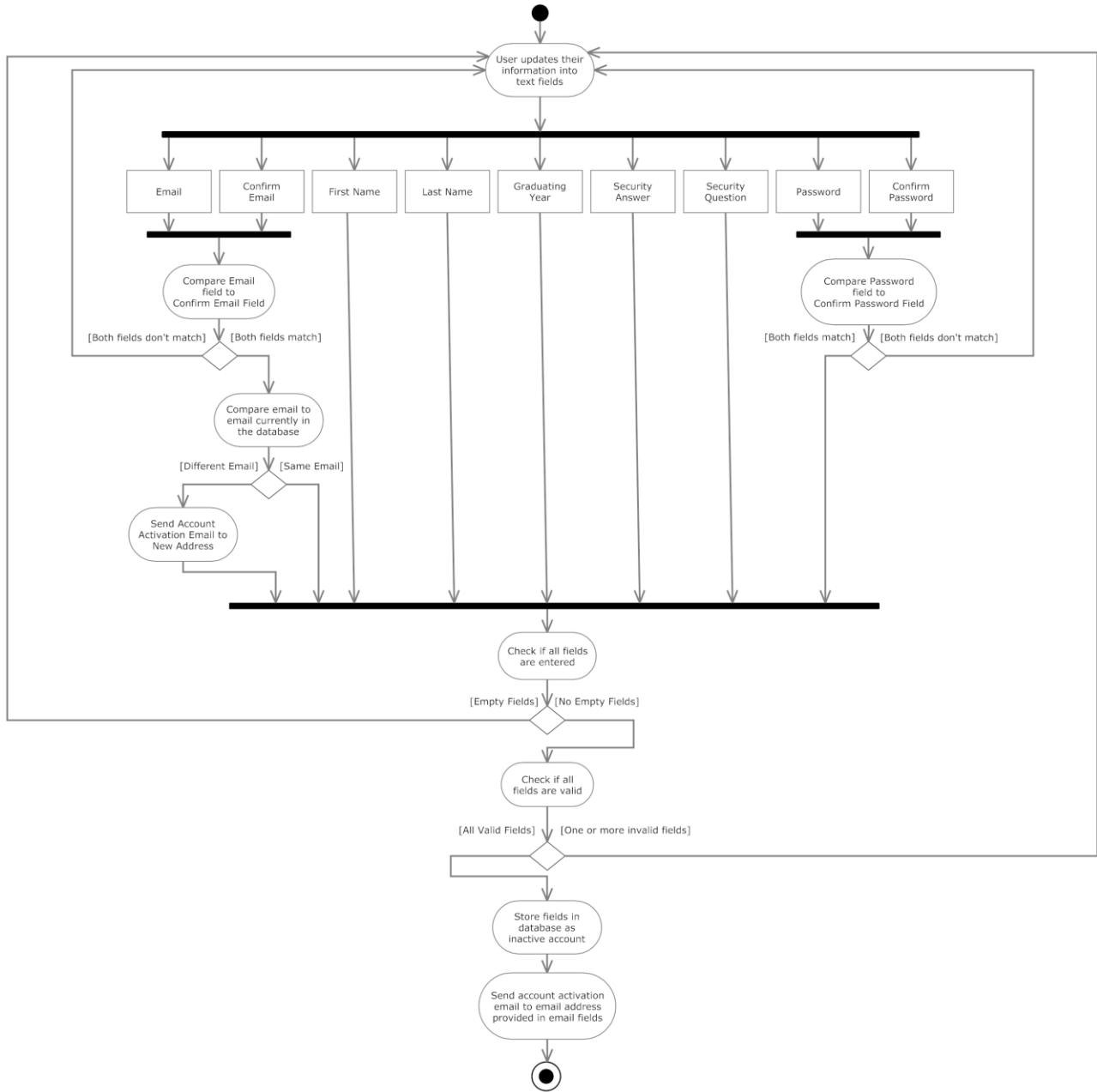This diagram shows how Student users register with the system.

8 "A6" – Self Registration Level 2

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

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.