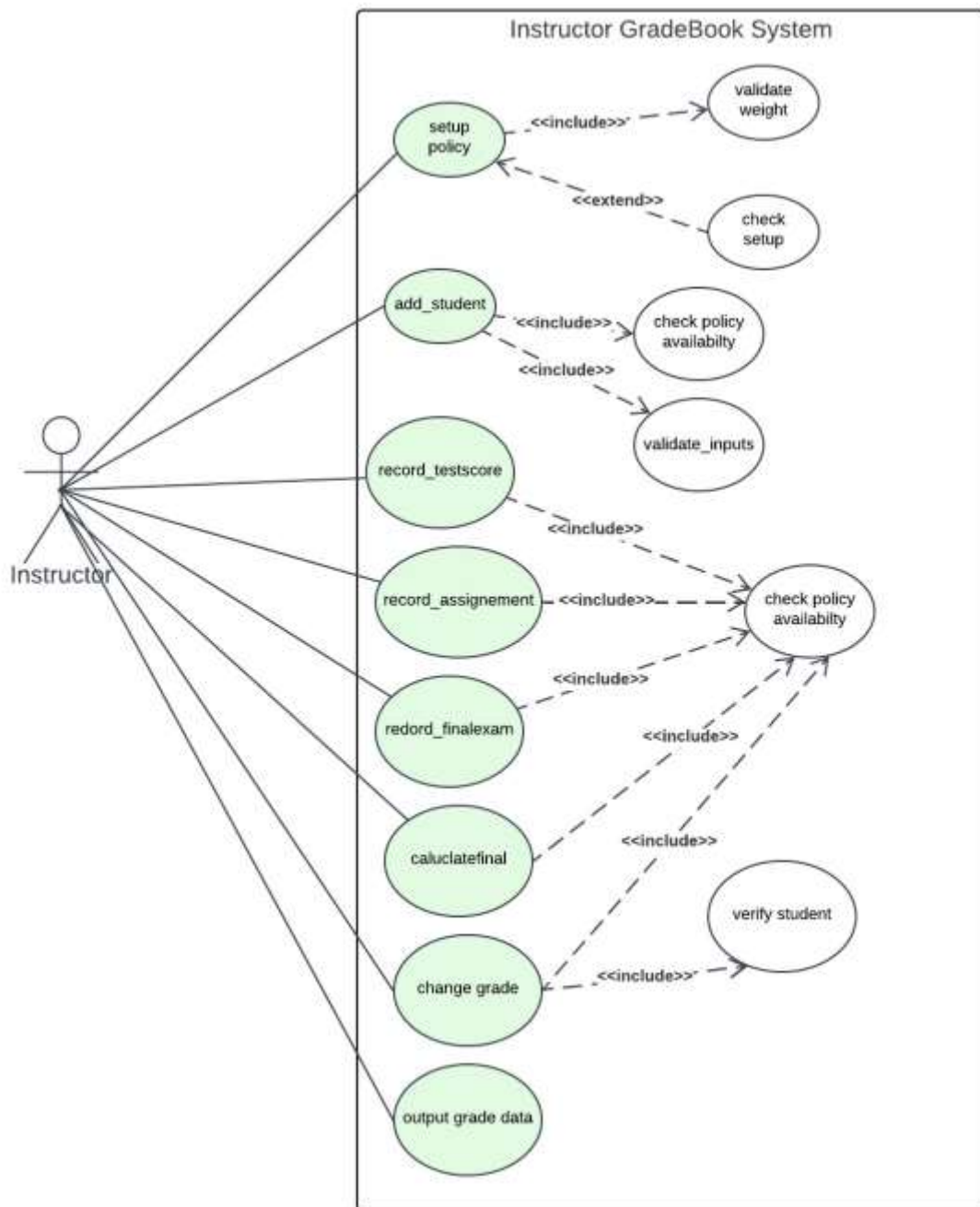


## Test Case – Grade Book

Part 1:



[https://lucid.app/lucidchart/8fd98a67-5da4-4a92-b4c3-2eae97fa536f/edit?beaconFlowId=6E1F7D7A748DDA0D&invitationId=inv\\_3f81f430-7e1a-4529-a8b0-8faf5f125bf4&page=OOavCzpO8Y4J#](https://lucid.app/lucidchart/8fd98a67-5da4-4a92-b4c3-2eae97fa536f/edit?beaconFlowId=6E1F7D7A748DDA0D&invitationId=inv_3f81f430-7e1a-4529-a8b0-8faf5f125bf4&page=OOavCzpO8Y4J#)

Part2:

#### Detailed Description

1. **Set Up New Semester:** Allows the instructor to establish the structure for a new semester, including the number of assignments, tests, and exams, along with their respective weights.
2. **Add a student:** Enables the instructor to add a new student's information, including their ID and name, to the system.
3. **Record Programming Assignment Grades:** Permits the instructor to enter grades for all students for a specific programming assignment.
4. **Record Test Grades:** Allows the instructor to input test scores for all students for a designated test.
5. **Record Final Exam Scores:** Enables the instructor to record scores for the final exam for all students.
6. **Change a Grade:** Provides the functionality for the instructor to modify a previously recorded grade for an assignment, test, or final exam.
7. **Calculate Final Scores:** Calculates final scores for all students based on the weighted averages of assignments, tests, and final exam scores.
8. **Output Grade Data:** Outputs the grade data sorted either alphabetically by student last name or by student ID in increasing order.