**Our prototype provides functionality for the two major use cases in which the Instructor is the actor:**

1. **Set group assignment parameters**
2. **Finalize (view, edit, confirm/re-do) groups**

**The exact paths followed through use of our prototype are as follows.**

**Prototype Use Case #1**

**Name:** Set group assignment parameters

**Description:** The instructor can use our prototype to set the parameters for assigning students into groups. These parameters include the group size, enforcing certain groups, prohibiting others, choosing the the way to deal with class sizes not perfectly divisible by the group size as well as the primary way in which students should be grouped (by GPA, alphabetically or randomly).

**Actor:** Instructor

**Preconditions**:

§ The list of students and their associated information (e.g. GPA) must be loaded in the system (the system currently has class lists for COMP 3716 and COMP 3715).

§ The instructor should understand the meaning of the options available on the Parameters screen.

**Postconditions**:

§ Instructor is ready to press “Create Groups” to generate a grouping of students in the selected class.

**Flow (main and alternate paths)**:

1. Instructor opens the system.
2. System shows the welcome screen and the available class lists.
3. Instructor selects the course in which he wishes to create a group project.
4. System shows the parameters screen, including a list of students and their information e.g. GPA.
5. Instructor views list and decides how the students should be grouped.
   1. Instructor forbids some students from being put in the same group.
   2. Instructor mandates that some students be put in the same group.
   3. Instructor chooses whether or not to “Guarantee Group Size” i.e. no group will be made that has fewer members than one less the input group size (if not chosen, the remainder of students will simply be put in a final group with no minimum size).
   4. Instructor chooses method for assigning groups:
      1. “Balance by GPA” - the collective GPA of each group will be roughly balanced.
      2. “Randomize class list” - the class list will be shuffled before assigning groups.
      3. “Assign sequentially” - students will be grouped in a primarily alphabetically manner.
6. Instructor inputs a group size.
   1. Instructor reviews the screen and can modify any choices made before choosing “Create Groups”.

**Prototype Use Case #2**

**Name**: Finalize groups

**Description**: The instructor tells the system to assign groups and can then view the groups generated, make manual changes, confirm and save, or alternatively choose to re-do the assignment with different parameters

**Actor**: Instructor

**Preconditions**:

§ Instructor has completed use case #1 and is ready to generate the groups.

**Postconditions**:

§ Instructor is satisfied with the groups generated and the list is saved.

**Flow (main and alternate paths)**:

1. Instructor chooses “Create groups”.
2. System uses input preferences to generate a list of groups of the students from the class list.
3. System shows the “Groups Generated” screen with a list of the groups generated and options for making changes.
4. Instructor views the list of groups.
   1. Instructor chooses to make changes by:
      1. Swapping students
      2. Moving students to different groups
   2. Instructor chooses to apply different parameters for the grouping and chooses “Re-assign Groups”, returning to the parameters screen (use case #1)
5. Instructor is satisfied with the list of groups and chooses “Confirm and exit”.
6. System saves the list (to a text file).