

## Assignment 3: Requirements Analysis

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Step 1:

- Users
  - Instructor
  - TA
  - Student

Step 2:

- The Instructor...
  1. Shall be able to view submitted assignments
  2. Shall be able to upload assignments for students to view
  3. Shall be able to give grades to the assignments
  4. Shall be able to generate a student's average grade on assignments
  5. Shall be able to organize the student's grades and the sections they are in
- The TA...
  1. Shall be able to collect and view assignments
  2. Shall be able to message the instructor of any issues that students had with the assignment
  3. Shall be able to grade assignments with the instructor's approval
  4. Shall be able to receive and send messages to help with student problems
- The Student...
  1. Shall be able to upload and submit their files for the assignment
  2. Shall be able to view their grades, assignments, and instructor comments
  3. Shall be able to message the TA or instructor.
  4. Shall be able to add a comment to their submitted assignment

Step 3:

- Instructor
  1. Shall be able to view students submitted assignments and the date and time they were collected/submitted
    - Entity: Submission, Student
      - Submission Attributes: file, time submitted, comment
      - Student Attributes: Name, pawprint, section
    - Constraints: A file must be submitted by a student
  2. Shall be able to upload assignments for students to view
    - Entity: Assignment, Instructor
      - Assignment Attributes: text, files, time uploaded, comments
      - Instructor Attributes: Name, email
    - Constraints: Instructor must upload assignment; students are unable to edit or delete the assignment
  3. Shall be able to give grades and comments to the assignments
    - Entity: Submission, Student
      - Submission Attributes: file, grade, comment
      - Student Attributes: Name, pawprint, section
    - Constraints: Instructor can only give grade on assignments; Assignment can't have a comment if it isn't submitted
  4. Shall be able to generate a student's average grade on assignments
    - Entity: Submission, Student
      - Submission Attributes: files, grade
      - Student Attributes: Name, pawprint, section

- Constraint: If a student has no submissions/grade will be a 0
- 5. Shall be able to organize the student's grades and the sections they are in
  - Entity: Submission, Student
    - Submission Attribute: grade
    - Student Attributes: name, pawprint, section
  - Constraints Only the instructor can edit a student's section
- TA
  1. Shall be able to collect and view assignments
    - Entity: Submission, Student
      - Submission Attributes: file, time submitted, comment
      - Student Attributes: Name, pawprint, section
    - Constraints: A file must be submitted by a student
  2. Shall be able to message the instructor of any issues that students had with the assignment
    - Entity: TA, Instructor, Message
      - TA Attributes: Name, pawprint, email, section they assist
      - Instructor attributes: Name, email
      - Message attributes: text, file
    - Constraints: Message must contain either text or a file to be sent
  3. Shall be able to grade assignments with the instructor's approval
    - Entity: Submission, Student
      - Submission Attributes: file, grade
      - Student Attributes: Name, pawprint, section

- Constraints: TA must get permission from instructor to give a grade on assignments
- 4. Shall be able to receive and send messages to help with student problems
  - Entity: TA, Instructor, Message
    - TA Attributes: Name, pawprint, email, section they assist
    - Student attributes: Name, email
    - Message attributes: text, file
  - Constraints: Message must contain either text or a file to be sent
- Student
  1. Shall be able to upload and submit their files for the assignment
    - Entity: Submission, Student
      - Submission Attributes: files, time submitted
      - Student Attributes: Name, pawprint, section
      - Constraints: A file must be submitted by a student, Will not be accepted or marked as late if submission is after assignment deadline
  2. Shall be able to view their grades, assignments, and instructor comments
    - Entity: Submission, Student
      - Submission Attributes: files, time submitted, comment, grade
      - Student Attributes: Name, pawprint, section
      - Constraints: A student can only view their grades and instructor comments when it is released by the instructor or TA, A student must submit an assignment to receive a grade

3. Shall be able to message the TA or instructor
  - Entity: Student, TA, Instructor, Message
    - Student Attribute: name, pawprint, email
    - TA attribute: name, email
    - Instructor Attribute: name, email
    - Message Attribute: text, file
  - Constraints: A message needs text or a file to send.
4. Shall be able add a comment to their submitted assignment
  - Entity Student, Submission
    - Submission Attribute: file, student comment
    - Student Attribute: name, pawprint, section number
  - Constraint: Student must have a submission that has been graded to comment on it. Only the instructor and TA can see the comment

Step 4:

- System Constraints and Requirements
  - A computer that can run the assignment submission program
  - An internet connection to upload and download the files