Requirements Analysis

Noah Frew

Step 1

The different users are the students, instructors, and TAs.

Step 2

Student Requirements:

- Students shall be able to submit programming work.
- Students shall be able to navigate assignments and sections.
- Students shall be able to check assignment statuses and grades.

Instructor Requirements:

- Instructors shall be able to manage the course, its sections, TAs, and assignments.
- Instructors shall be able to control what is published to the student and what is not.
- Instructors shall be able modify the grading of assignments.
- Instructors shall be able to give feedback to the TAs and students.

TA Requirements:

- TAs shall be able to collect assignments.
- TAs shall be able to publish grades for assignments.
- TAs shall be able to navigate assignments and to different students.
- TAs shall be able to check for academic dishonesty.

Step 3

Data Entities and Attributes:

- Student entity

    - Name attribute
    - Student number

- TA Entity
    - Name attribute
    - Class name attribute
- Instructor Entity
    - Name attribute
    - Class name attribute
- Submission entity
    - Date/time attribute
    - Grade attribute
    - Plagiarism flag attribute
- Assignments Entity
    - Content attribute
    - Points attribute
    - Due date attribute
    - Grade attribute
    - Feedback attribute
    - Date/time attribute

Step 4

System Requirements and Constraints:

- Web Server with high storage capacity
- Database to control entities, attributes, and their relationships
- Program to check for academic dishonesty
- Well-designed UI for easy, straight-forward data manipulation
- Submission text editor