Assignment 3: Requirements Analysis

Songxi Chen

University of Missouri

Step 1: Identify the different types of Users

1. Instructor
2. TA
3. Student

Step 2: Identify the Activities for each identified User

1. Instructor:
    1. Grade the assignments
    2. Find the students in the course
    3. Post the assignments
    4. Download the assignments from students
2. TA:
    1. Grade the assignments
    2. Write comments to the student
    3. Set up a schedule with the students
    4. Collect the assignments
3. Student:
    1. Submit the assignments
    2. Check the grade
    3. Ask questions online

Step 3: Identify entities, attributes and constraints for each identified activity

1. Instructor:
    1. Grade the assignments
    Assignment as entity has student_name, student_ID, grade, submit_date and grade_by as attributes.
    Instructor can change the grade after TA grades the assignments.
    2. Find the students in the course
    Student as entity has student_name, student_ID, grade, section and GraduateOrUn as attributes.

Instructor can only edit grade and section of the students.

3. Post the assignments

Assignment as entity has student_name, student_ID, grade, submit_date, post_date, due_date, requirements and grade_by as attributes.

Due date should be after post date.

4. Download the assignments from students

Assignment as entity has student_name, student_ID, grade, submit_date, link and grade_by as attributes.

Instructor can download it only if there is a link.

2. TA:

1. Grade the assignments

Assignment as entity has student_name, student_ID, grade, submit_date and grade_by as attributes.

TA can't change the grade after instructor grades the assignments.

2. Write comments to the student

Comment as entity has TA_name, student_name, student_ID, post_date and content as attributes.

Content should not be empty.

3. Set up a schedule with the students

Schedule as entity has TA_name, student_name, student_ID, appointment_date and location as attributes.

Time and location should be unique.

4. Collect the assignments

Assignment as entity has student_name, student_ID, grade, submit_date, link and grade_by as attributes.

Instructor can collect it only if there is a link.

3. Student:

1. Submit the assignments

Assignment as entity has student_name, student_ID, grade, submit_date, post_date, due_date, requirements and grade_by as attributes.

Submit date should be before the due date. Students can submit assignments only after they are posted.

2. Check the grade

Assignment as entity has student_name, student_ID, grade, submit_date, grade_date and grade_by as attributes.

Grade date should be after submit date. Students can only check their own grade.

3. Ask questions online

Comment as entity has student_name, student_ID, post_date, answer_by and content as attributes.

Content should not be empty.

Step 4: Identify System constraints and requirements

Every course should have at least one instructor.

Every course should have at least one section.

Every section should have at least one TA.

Every section should have at least one student.