

Your Flask-based school management application looks solid! It handles user authentication, assignment creation, grading, and roles for students, teachers, and principals. I see that you've implemented key features like:

- User login and registration with role differentiation.
- Assignment creation by students and teachers.
- Assignment grading by teachers, with re-grading by principals.
- Draft assignments for students to edit and submit.
- User comments on assignments.

Some suggestions and improvements you might consider:

1. Validation and Flash Messaging:

For better user experience, ensure flash messages provide clear feedback for all actions. Example: when creating an assignment, adding a confirmation message like "Assignment created successfully!" or when an error occurs during form submission.

2. Submission Verification:

For `submit_assignment`, ensure that the student cannot submit the assignment after the deadline by adding a check:

python

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```
if draft_assignment.deadline < datetime.now():
    flash("Cannot submit after the deadline.")
    return redirect(url_for("dashboard"))
```

3. Input Sanitization and Security:

Make sure all input data is sanitized to prevent SQL injection or XSS attacks. You can use Flask-WTF with CSRF protection enabled to help with form security.

4. Relationship Constraints:

Consider adding cascade deletion for relationships between entities (e.g., when a user is deleted, their profile and assignments should also be deleted). You can achieve this by adding `cascade='all, delete-orphan'` in relationships:

python

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```
profile = db.relationship("Profile", backref="user", uselist=False,
                           cascade="all, delete-orphan")
```

5. Role-Based Access Control:

For routes like `edit_assignment`, it's important to ensure proper authorization checks:

python

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```
@app.route('/edit_assignment/<int:assignment_id>', methods=['GET',
'POST'])
@login_required
def edit_assignment(assignment_id):
    assignment = Assignment.query.get_or_404(assignment_id)
    if assignment.student_id != current_user.id: # Ensure only the
student who created it can edit
        abort(403)
    ...
```

6. Improve Deadline Formatting:

For better handling of the deadline, format it to something more user-friendly when displaying:

python

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```
{{ assignment.deadline.strftime('%B %d, %Y, %I:%M %p') }}
```

7. Images

Principal:

Teachers:

Create_assignment:

Student:

Register:

Login:

Homepage

Principal Dashboard

Teachers

Teacher2

Teacher1

Assignments

Pollution

Grade: 60

Student:

Re-grade

Teacher: Teacher1

Vehicle

Grade: 60

Student:

Re-grade

Teacher: Teacher2

Assignments Submitted to Me

Vehicle ()

Grade: 60

Create Assignment

Title:

Description:

Teacher:

Criteria:

Deadline:

Create

Student Dashboard

Assignments:

Pollution (Teacher1)	Edit
Vehicle (Teacher2)	Edit

Draft Assignments:

Create Assignment

Register

Username:

Password:

Role:



Login

Username:

Principal

Password:

Login

Welcome to School Assignment Management System



About Our App

A School Management System (SMS) can streamline the process of assignment submission and grading. Students can submit their assignments online through the system, which organizes and stores these submissions in a centralized database. Teachers can then access these assignments, review them, and provide grades and feedback directly within the system.

Login

Register