Your answer NOT SUBMITTED

Assignment

Assignment: Bug Hunting in Codebase

Objective: The goal of this bonus assignment is to help you become familiar with the given Go backend codebase by identifying, analyzing, and reporting any bugs you find. This exercise will enhance your debugging skills and deepen your understanding of Go programming and backend systems.

Instructions:

1. **Setup the Codebase**
    - Clone or download the provided Go backend codebase.
    - Follow the setup instructions to get the application running on your local environment. Make sure to set up any dependencies, configurations, and database connections as outlined.
2. **Exploration Phase**
    - Spend some time exploring the codebase structure, paying attention to the major components like routers, handlers, validators, and database models.
    - Familiarize yourself with the data flow and how different parts of the application interact.
3. **Testing and Bug Identification**
    - Use the provided documentation and sample data to test the application functionality.
    - Pay attention to any discrepancies between the expected and actual behavior, such as errors in data handling, unexpected responses, or application crashes.
    - Consider testing edge cases and incorrect input scenarios to see how the system responds.
4. **Bug Analysis and Documentation**
    - For each bug you find, take note of the following details:
        - **Bug Description**: A brief overview of the bug, explaining what goes wrong.
        - **Steps to Reproduce**: A step-by-step guide on how to trigger the bug.
        - **Expected vs. Actual Behavior**: Describe what should happen and what actually happens.

- **Possible Cause(s)**: If possible, investigate the code to locate the source of the bug and provide insights into why it may be occurring.
- **Severity**: Rate the bug's severity on a scale from 1 to 5 (1 = minor issue, 5 = critical failure).

5. **Reporting**

    - Document each bug you find in a report format. For each bug, create a report entry with all the details you recorded.
    - Summarize your findings at the beginning of the report, including the total number of bugs found and any general observations or patterns.

6. **Reflection**

    - After identifying and reporting the bugs, write a short reflection on what you learned through this exercise. Describe any challenges you encountered while debugging, insights gained, or areas of improvement for future debugging.

Deliverables:

- **Bug Report Document**: Submit a detailed bug report that includes all documented bugs, steps to reproduce, and your reflections.

Evaluation Criteria:

- **Accuracy of Bug Descriptions**: Clear and accurate descriptions of each bug.
- **Insightfulness of Bug Analysis**: Thoughtful analysis of the bug's cause and severity.
- **Reflection Quality**: Thoughtful reflection on the debugging process.