torug.ai

AI Code Review Assignment

1. Purpose of This Assignment

This assignment is designed to evaluate your ability to review, reason about, and improve AI-generated Python code and technical explanations.

It mirrors the real work you would perform in this role:

- Reviewing imperfect AI outputs
- Identifying correctness issues, bugs, and edge cases
- Improving code quality and robustness
- Rewriting incorrect or misleading explanations
- Making sound engineering judgments

2. Assignment Overview

- **Language:** Python only
- **Submission deadline:** 11 Feb 2026, 11:59PM (UTC+3)
- **Expected effort:** ~60–90 minutes total
- **Attempts:** One
- **Tasks:** 3 independent review tasks
- **Submission method:** Public GitHub repository submitted via a Google Form

3. What We Are Evaluating

We are evaluating:

- Correctness and attention to detail
- Ability to spot bugs and edge cases
- Quality and safety of proposed fixes
- Depth of reasoning and explanations
- Clarity of written communication
- Engineering judgment (approve vs reject decisions)

4. Allowed and Disallowed Tools

Allowed

- AI tools (e.g., ChatGPT, Copilot) **as assistants only**
- Python documentation and references

Disallowed

- Copy-pasting full solutions without understanding
- Submitting AI-generated output you cannot justify

We are evaluating *you*, not your tools.

5. Submission Method

Platform

- GitHub is required
- Submission must be via a **public GitHub repository**

Process

1. Clone the assignment template repository: https://github.com/metunlp/code-assignment-template
2. Complete the tasks locally
3. Push your completed work to **your own public GitHub repository**
4. Submit your repository link via the Google Form **(see section 9)**

6. Required Repository Structure

Your repository must follow this structure exactly:

None

```
ai-code-review-assignment/

├── README.md                # Repository instructions (do not
replace)

├── submission_template.md   # Your written responses (fill this
out)

├── task1.py                 # Original AI-generated code (do not
modify)

├── task2.py                 # Original AI-generated code (do not
modify)

├── task3.py                 # Original AI-generated code (do not
modify)

├── correct_task1.py         # Your corrected implementation

├── correct_task2.py         # Your corrected implementation

├── correct_task3.py         # Your corrected implementation

Optional:

├── NOTES.md                 # Extra context (optional)
```

Rules:

- Do not rename required files
- Do not submit ZIP files
- Do not place answers only in comments or issues
- Do **not** modify `task1.py`, `task2.py`, or `task3.py`

7. Written Submission (submission_template.md)

Your written responses must be completed in `submission_template.md` in your repository.

- Do not change the structure of the template
- Fill out all sections for Task 1, Task 2, and Task 3 in their corresponding files (**correct_task1.py**, **correct_task2.py** and **correct_task3.py**)
- Keep responses concise and review-ready
- Do not write your answers in README.md
- All written responses must be completed in **submission_template.md**.

8. Assignment Tasks

You will complete **three independent code review tasks**.

Each task consists of an AI-generated Python function and a corresponding explanation. Your goal is to review, correct, and document each pair according to the instructions provided.

Both the code and the explanation are intentionally flawed.

For each task, you are expected to:

- Identify correctness issues, bugs, and edge cases
- Propose and implement safe, minimal fixes in the corresponding **correct_task files**:
  - **correct_task1.py**
  - **correct_task2.py**
  - **correct_task3.py**
- Rewrite the explanation so it accurately reflects the final behavior
- Make a final engineering judgment (approve / request changes / reject)

Task 1 — Average Order Value

AI-Generated Code

Python

```python
def calculate_average_order_value(orders):
    total = 0
    count = len(orders)

    for order in orders:
        if order["status"] != "cancelled":
            total += order["amount"]

    return total / count
```

AI-Generated Explanation

> This function calculates average order value by summing the amounts of all non-cancelled orders and dividing by the number of orders. It correctly excludes cancelled orders from the calculation.

This code is provided in `task1.py`.

Task 2 — Count Valid Emails

AI-Generated Code

Python

```python
def count_valid_emails(emails):
    count = 0

    for email in emails:
        if "@" in email:
            count += 1

    return count
```

AI-Generated Explanation

> This function counts the number of valid email addresses in the input list. It safely ignores invalid entries and handles empty input correctly.

This code is provided in `task2.py`.

Task 3 — Aggregate Valid Measurements

AI-Generated Code

```python
def average_valid_measurements(values):
    total = 0
    count = len(values)

    for v in values:
        if v is not None:
            total += float(v)

    return total / count
```

AI-Generated Explanation

> This function calculates the average of valid measurements by ignoring missing values (`None`) and averaging the remaining values. It safely handles mixed input types and ensures an accurate average.

This code is provided in `task3.py`.

9. Submission Instructions (GitHub Required)

To submit your assignment, you must use a **public GitHub repository** and complete the submission form.

Step 1: Create Your GitHub Repository

- Create a public GitHub repository under your own account
- Follow the required repository structure exactly (as described above)
- Ensure all files are complete and final before submission

Step 2: Verify Public Access

- The repository must be public
- Eskalate reviewers must be able to access it without requesting permission
- Repositories that are private or inaccessible will not be reviewed

Step 3: Submit the Repository Link

Once your repository is ready, submit your work using the form below:

Assignment Submission Form:

https://forms.gle/3ZBZNgwKFugn4EAw9

Important rules:

- Do not submit ZIP files or screenshots
- Do not submit multiple repositories
- Do not modify your repository after the submission deadline
- Submissions that do not follow the instructions will not be reviewed
- Late submissions will not be considered

Recommended:

- Ensure your `submission_template.md` renders correctly on GitHub

10. Final Note

Thank you for taking the time to complete this assignment. We know it requires focus and care, and we appreciate the effort you put into it.

Approach the task thoughtfully, prioritize correctness, and explain your reasoning clearly. We are more interested in how you think and how you judge tradeoffs than in perfect polish.

> *“Whether you think you can, or think you can’t — you’re right.”*
> — ***Henry Ford***

We look forward to reviewing your submission.

— Torug.ai Hiring Team