

NOTE TAKING APPLICATION

BUG REPORT :

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Backend Project 2 (Debugging)

Data Science with Advanced GENAI Internship

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1. Introduction

The given note-taking application was designed to allow users to add notes using a text field and display them on the same page. However, when the application was executed, the home page did not load properly and users were unable to add or view notes. Multiple issues were identified in both the backend and frontend files. This document explains the bugs found and the steps taken to fix them.

2. Bugs Identified and Fixes Applied

Bug 1: Home page returned “405 Method Not Allowed”

File: app.py

Description:

When the home page URL was opened in the browser, a 405 error was displayed instead of loading the page.

Root Cause:

The route was configured to accept only POST requests, while the browser sends a GET request by default.

Fix Applied:

The route was updated to accept both **GET** and **POST** methods so the page loads correctly and handles form submissions.

Bug 2: Incorrect method used to read form data

File: app.py

Description:

User input from the form was **not captured** correctly.

Root Cause:

The application used `request.args` instead of `request.form`, which is **incorrect** for POST requests.

Fix Applied:

The code was updated to use `request.form.get()` to correctly retrieve form data.

Bug 3: HTML form missing POST method

File: home.html

Description:

Form submissions were **not handled correctly**.

Root Cause:

The form **did not specify** a method and defaulted to **GET**.

Fix Applied:

The form was updated to explicitly use the POST method.

Bug 4: Empty notes added to the list

File: app.py

Description:

Empty list items appeared when submitting without text.

Root Cause:

No validation was performed before adding notes.

Fix Applied:

A condition was added to ensure only non-empty notes are stored.

Bug 5: Submit button type not specified (home.html)

File: home.html

Description:

The button used to submit the form did not explicitly define its type.

Root Cause:

In HTML, a <button> element defaults to type **submit**, but relying on default behavior is not a good practice and can cause unexpected issues when the form structure or JavaScript logic changes.

Fix Applied:

The button type was explicitly set to **submit** to clearly indicate its purpose and ensure consistent form submission behavior.

Fixed Code :

```
<button type="submit">Add Note</button>
```

3. Refactoring Summary

The code was refactored to improve clarity and correctness while keeping the original structure intact. Conditional request handling was added, form processing was corrected, and unnecessary issues were removed without adding extra features.

4. Final Outcome

After fixing the identified bugs, the application loads correctly, allows users to add notes, and displays them properly on the same page. The application now works as intended using a single route.

5. Conclusion

All issues in the note-taking application were successfully identified and fixed. The application now meets the assignment requirements and functions correctly.