Bug Report & Resolution Document: Note-Taking App

1. Identified Bugs

A. Lack of Support for the GET Method

- The issue was that the Flask route was defined as @app.route('/', methods="POST"]).
- The issue is that your browser sends a GET request when you first visit a website. The server rejected the first page load with a 405 Method Not Allowed error because the code only permitted POST.
- The route was changed to @app.route('/', methods=="GET", "POST"]).

B. Inconsistency in Form Submission Method

- The flaw was that home.html's HTML <form> tag lacked a method attribute.
- The issue is that HTML forms use GET by default. Instead of using a secure request body, this sent the note data via the URL address bar (for example, /?note=hello).
- The <form> tag now has method="POST" added to it.

C. Inaccurate Request Object Data Retrieval

- The code utilized request.args.get ("note"), which is a bug.
- The issue is that data in the URL (from GET requests) is found using request.args. The backend was unable to locate the data since we changed to POST.
- The solution was to use request.form instead of the original backend code.obtain ("note").

D. The Automatic "None" Value Error

- The bug was that each time the page loaded, the line notes.append(note) was executed.
- The issue is that the variable note is empty or None on the first visit (before typing anything). This blank value was added to your list instantly by the app, creating an empty bullet point.
- The solution was to encapsulate the logic in an if request.block if method == "POST".

2. The Resolution Method

I used a "Request-Response" flow logic to make sure the frontend and backend were communicating at the same frequency in order to fix the application.

1. **Unified Routing**: I made it possible for the route to manage both the submission (POST) and the initial view (GET) in a single function.

2. **Input Validation**: To prevent users from adding blank or empty notes to the list, I included a check (if note:).
3. **Frontend Alignment**: In order to maintain a clean URL and adhere to accepted web development practices, I synchronized the HTML form to send data via POST.