

Bug Report & Refactoring Explanation

Below is a complete list of bugs found and how I fixed each one of them.

1. Home Route Did Not Support GET Requests

Bug

```
@app.route('/', methods=["POST"])
```

- The home page could not be loaded initially because only POST was allowed.
- Visiting <http://127.0.0.1:5000/> caused a **405 Method Not Allowed** error.

Fix

```
@app.route("/", methods=["GET", "POST"])
```

Reason

- The page must render on GET
 - Form submission happens on POST
-

2. Incorrect Data Retrieval Method

Bug

```
note = request.args.get("note")
```

- `request.args` is only for **query parameters (GET)**
- The form sends data using POST

Fix

```
note = request.form.get("note")
```

Reason

- `request.form` correctly reads POSTed form data
-

3. Form Did Not Specify Method

Bug (HTML)

```
<form action="">
```

- Default method is GET
- This conflicted with server-side POST logic

Fix

```
<form method="POST" action="/">
```

Reason

- Explicitly aligns frontend form submission with Flask route
-

4. Notes Appended Even When Empty

Bug

```
notes.append(note)
```

- Empty notes (None or blank strings) were added to the list

Fix

```
if note:
```

```
    notes.append(note)
```

Reason

- Prevents empty list items from rendering
-

5. Page Refresh Caused Duplicate Notes

Bug

- Refreshing the page after submitting re-sent the POST request
- This duplicated the last note

Fix

```
return redirect(url_for("index"))
```

Reason

- Implements the **POST → Redirect → GET (PRG)** pattern
 - Prevents duplicate submissions on refresh
-

6. Template Assumed notes Always Exists

Bug

- If the page loaded without notes, template could break in some setups

Fix

```
return render_template("home.html", notes=notes)
```

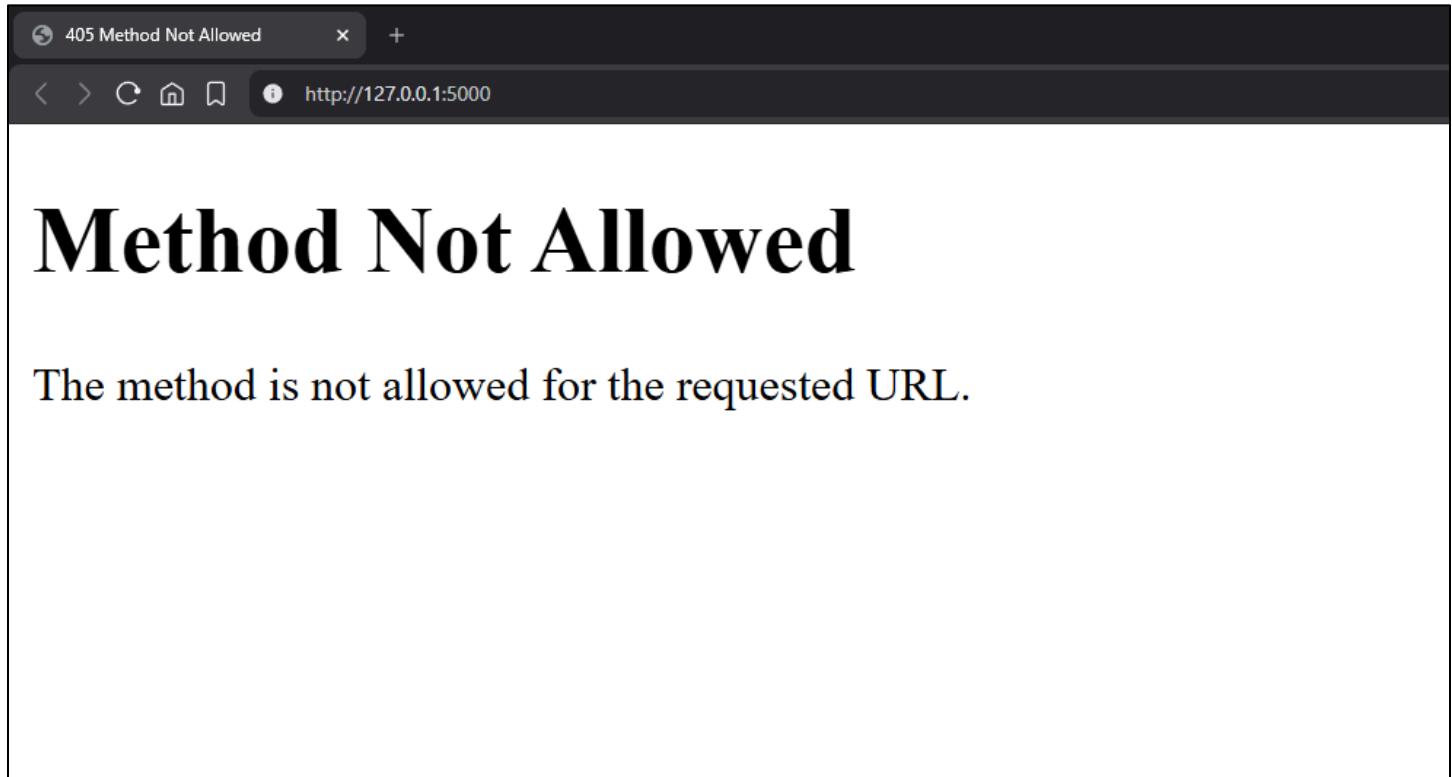
Reason

- Always sends notes context variable to the template

How the App works:

- User loads / → GET request → page renders
 - User submits note → POST request
 - Note is validated and stored
 - App redirects back to /
 - Notes render as an unordered list
-

App Screenshot (before fixing the bugs):



App Screenshot (after fixing the bugs):

