

# Bug Report & Fix Documentation

Application: Simple Notes App (Flask)

## Bug 1: Notes not persisting

- **Issue:** Notes were not being stored properly between requests.
- **Cause:** Missing global list or improper handling of form data.
- **Fix:** Added a global notes list to store notes in memory. Used `request.form.get("note")` to safely fetch input.

## Bug 2: Empty notes being added

- **Issue:** Users could submit empty strings or spaces.
- **Cause:** No validation on input.
- **Fix:** Added `if note and note.strip():` check before appending.

## Bug 3: Duplicate form submission on refresh

- **Issue:** Refreshing the page after submitting a note caused duplicate entries.
- **Cause:** POST request resubmission.
- **Fix:** Implemented **Post/Redirect/Get (PRG)** pattern using `redirect(url_for("home"))`.

## Bug 4: Template not rendering notes

- **Issue:** Notes were not displayed in the HTML.
- **Cause:** Missing Jinja loop in template.
- **Fix:** Added `{% for n in notes %}{{ n }}{% endfor %}` inside .

## Bug 5: Hardcoded HTML in Python

- **Issue:** Original code mixed HTML with Python logic.
- **Fix:** Separated HTML into templates/home.html for maintainability.

## Improvements

- Added required attribute in input field for basic client-side validation.
- Used `strip()` to clean whitespace.
- Enabled `debug=True` for easier development.

## **Final Outcome**

- Users can add notes via a text field.
- Notes are displayed immediately below the form as an unordered list.
- Application follows Flask best practices with templates and PRG pattern.