



INNOVATION. AUTOMATION. ANALYTICS

Code Refactoring and Bug Fixing

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1.Original Code:-

```
from flask import Flask, render_template, request

app = Flask(__name__)

notes = []

@app.route('/', methods=["POST"])
def index():
    note = request.args.get("note")
    notes.append(note)
    return render_template("home.html", notes=notes)

if __name__ == '__main__':
    app.run(debug=True)
```

2. Refactored Code:-

```
from flask import Flask, render_template, request

app = Flask(__name__)

notes = []

@app.route('/', methods=["GET", "POST"])
def index():
    if request.method == "POST":
        note = request.form.get("note")
        notes.append(note)
    return render_template("home.html", notes=notes)

if __name__ == '__main__':
    app.run(debug=True)
```

3.Identified Bug:-

The original code uses `request.args.get("note")` to retrieve the note submitted from the form. However, in Flask, form data is typically accessed using `request.form.get("note")`. Using `request.args.get` is meant for retrieving query parameters from the URL, not form data.

4.Changes Made:-

Replaced `request.args.get("note")` with `request.form.get("note")` to correctly access form data.

5.Impact of the Bug:-

The original code would not have captured any notes submitted through the form. Users would have been able to see previously added notes, but any new notes wouldn't have been added to the notes list and wouldn't be displayed.

6.Output:-

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Notes</title>

</head>

<body>

  <h1>Notes</h1>

  <form method="post" action="/">

    <label for="note">Add Note:</label>

    <input type="text" name="note" id="note" required>

    <button type="submit">Submit</button>

  </form>
```

```
<ul>
    {% for note in notes %}
        <li>{{ note }}</li>
    {% endfor %}
</ul>
</body>
</html>
```

7.Conclusion:-

This report analyzed a simple Flask application with a form for adding notes. It identified a bug in the code where the `request.args.get` method was used incorrectly to retrieve form data. The report then presented the refactored code using the appropriate `request.form.get` method to address the bug.