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RESEARCH LABS

INNOVATION. AUTOMATION. ANALYTICS

PROJECT ON

Code Refactoring and Bug Fixing

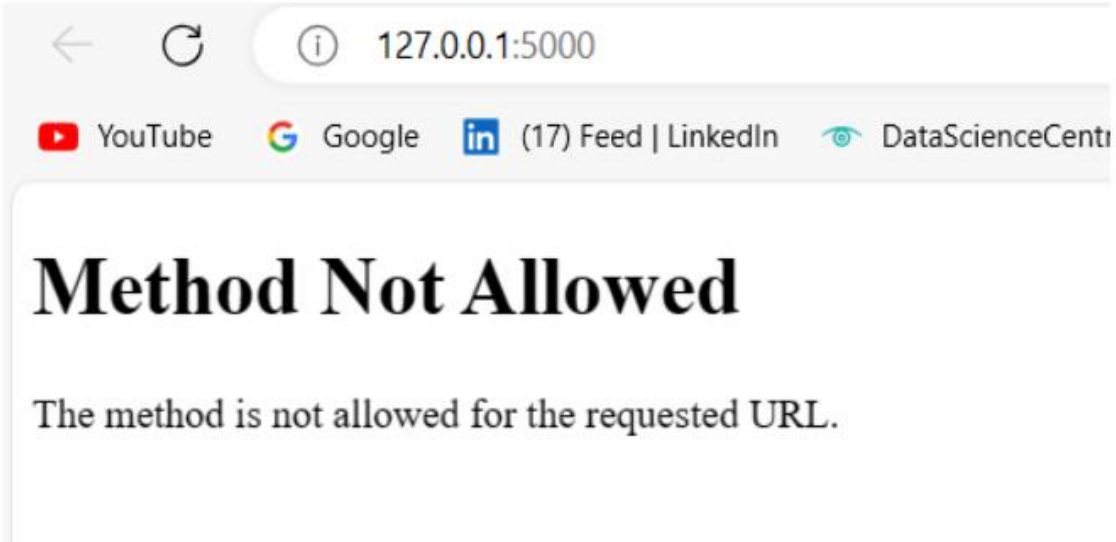
Objective of the project

- Refactor the existing codebase and ensure the proper functioning of the note taking application .Document all identified bugs during the debugging process

- Technical Tools Used
- Python
- Flask
- HTML
- CSS

Task to do

- Fix the bugs from front end html to backend python and Flask
- Bugs
- Bug 1



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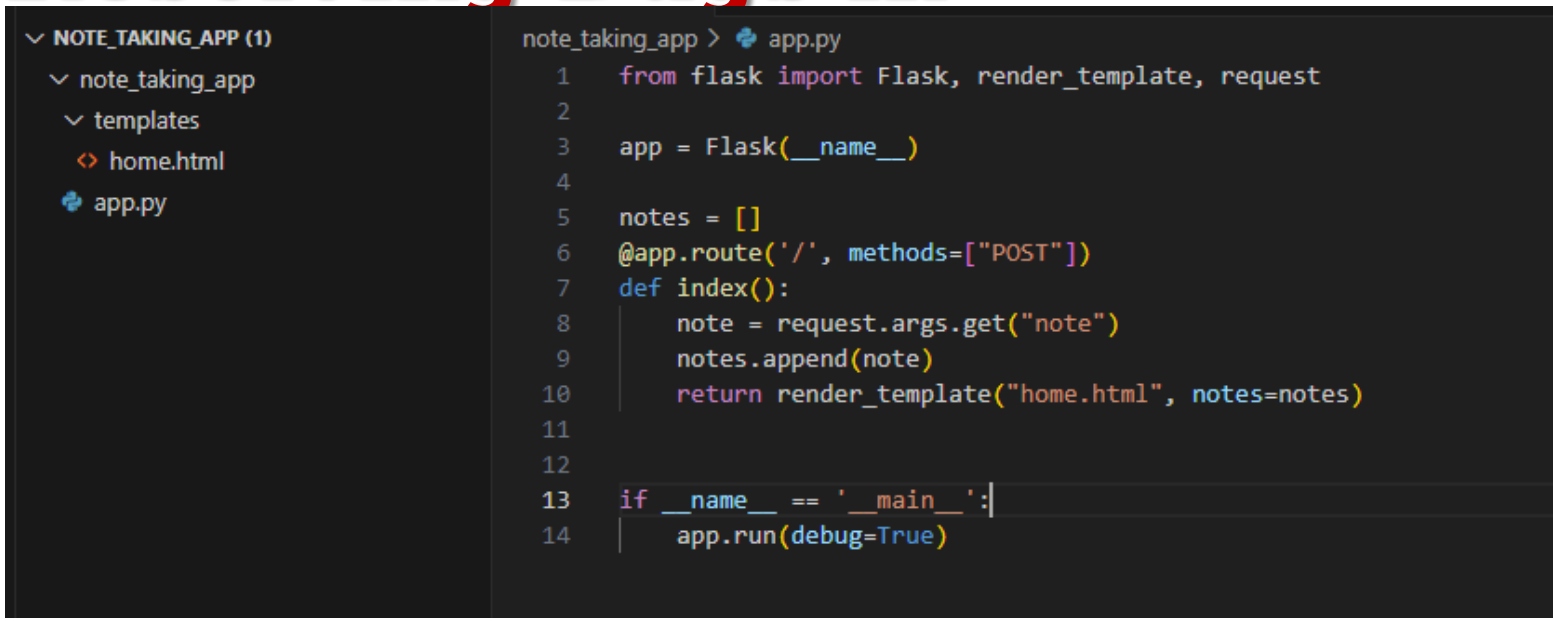
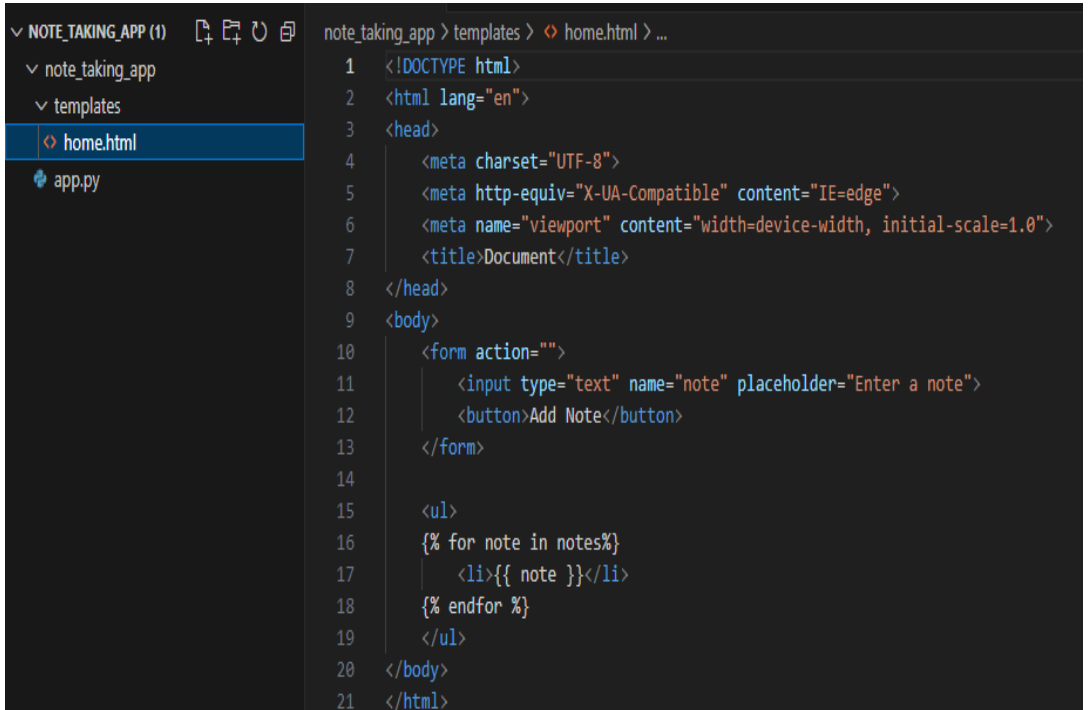
Identifying and Resolving Bugs in the Initial Code

- The following code snippet represents the initial state of Flask application, which contains identifiable bugs impacting its functionality.





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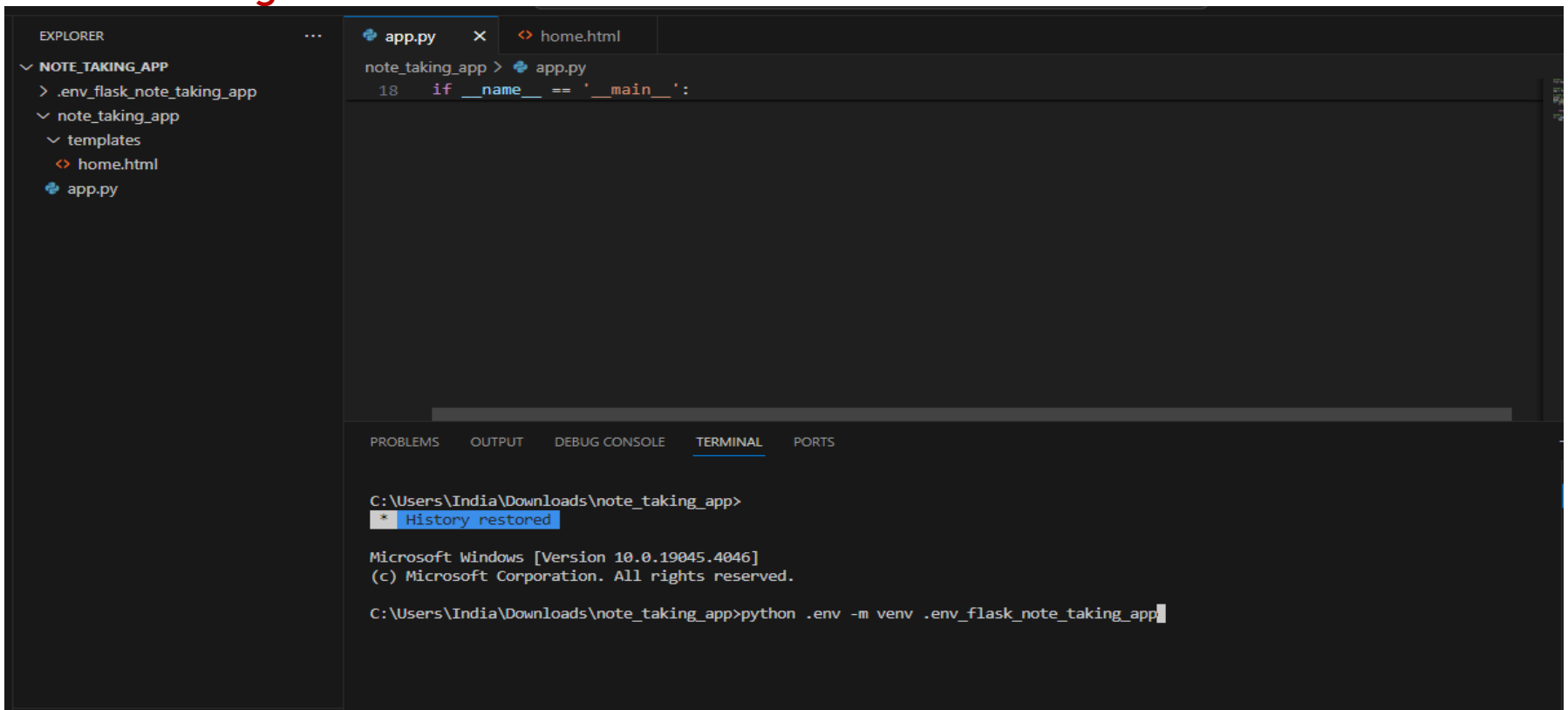
- Upon analysis, I identified several bugs that were affecting the performance and reliability of the application.
- In the initial state of Flask application, one of the identified issues was the absence of a virtual environment.
- Virtual environments are crucial for isolating project dependencies, ensuring consistency across different environments, and avoiding conflicts with system-level packages.
- Creating a Virtual Environment



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- Identifying and Correcting the Third Bug in HTML Code:

- Upon inspecting the HTML code, a third bug was identified, affecting the structure and behavior of Flask application interface.
- The bug was related to the HTML structure, specifically involving the heading and form action attribute.
- To address this issue, modifications were made to the HTML code, including changes to the heading and form action attribute.
- The correction involved adjusting the heading structure and the form attribute. The heading tag <h1> was modified, and the form action attribute was updated to reflect the correct route.
- Here is a visual representation of the HTML code snippet, illustrating the correction made to enhance the structure and behavior of our Flask application interface.

note_taking_app > app.py

```python
#STEP-1 importing flask
from flask import Flask, render_template, request # (request) used to take qu
                                                  # (render_template) for html

#STEP-2 Init a flask object with __name__ parameter
app = Flask(__name__)

# STEP-3 Create an end point/route and bind each route with some functionalit
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)

#STEP-4 Run the app
if __name__ == '__main__':
    app.run(debug=True)
```

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```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h1> ADD A NOTE:</h1>
    <form action="/" method="POST">
        <input type="text" name="note" placeholder="Enter a note">
        <button type="submit">Add Note</button>
    </form>

    <h3>Your Notes:</h3>
    <ul>
    {% for note in notes%}
        <li>{{ note }}</li>
    {% endfor %}
    </ul>

</body>
</html>
```

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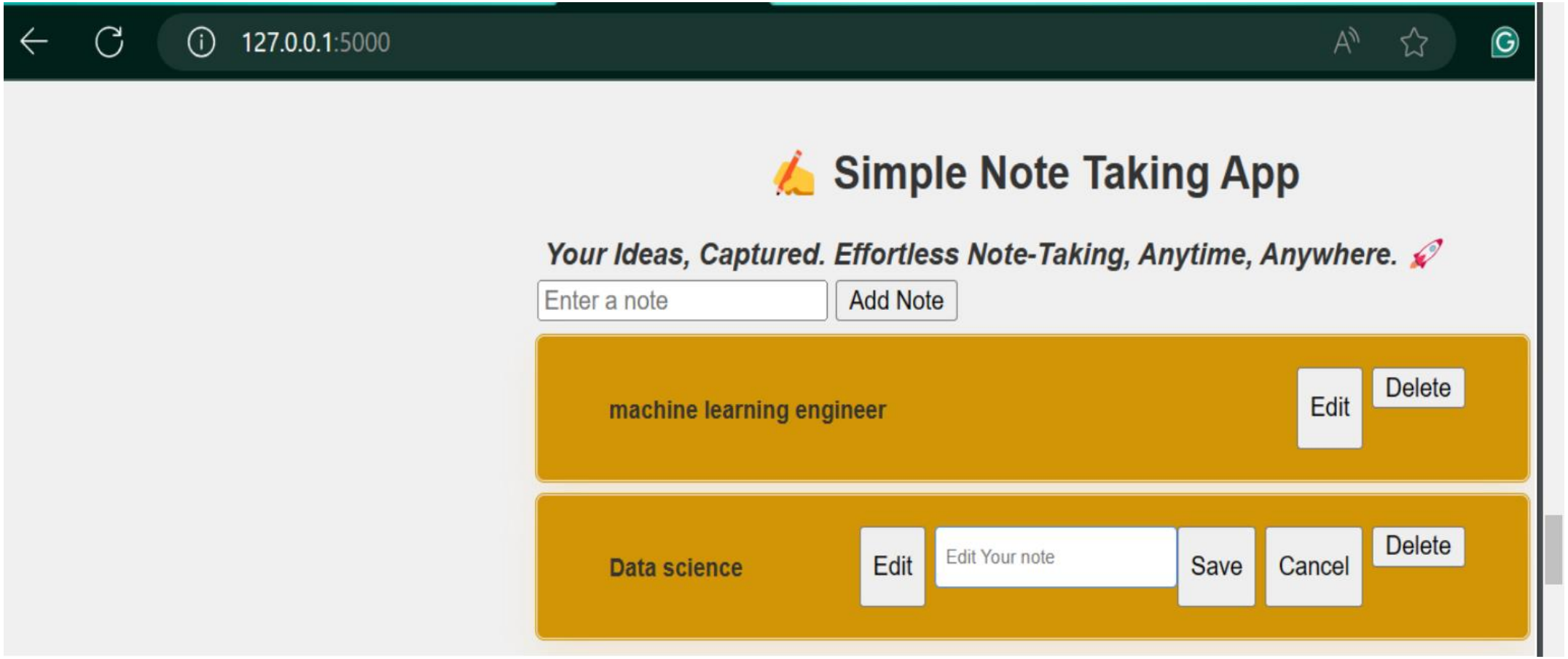
Web application developed by using the Python Flask and HTML after Code Refactoring and Bug Fixing:-



THANK YOU

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