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PROJECT ON

CODE REFACTORING AND BUG FIXING

BY
G V S SREERAM SARMA
IN1241203

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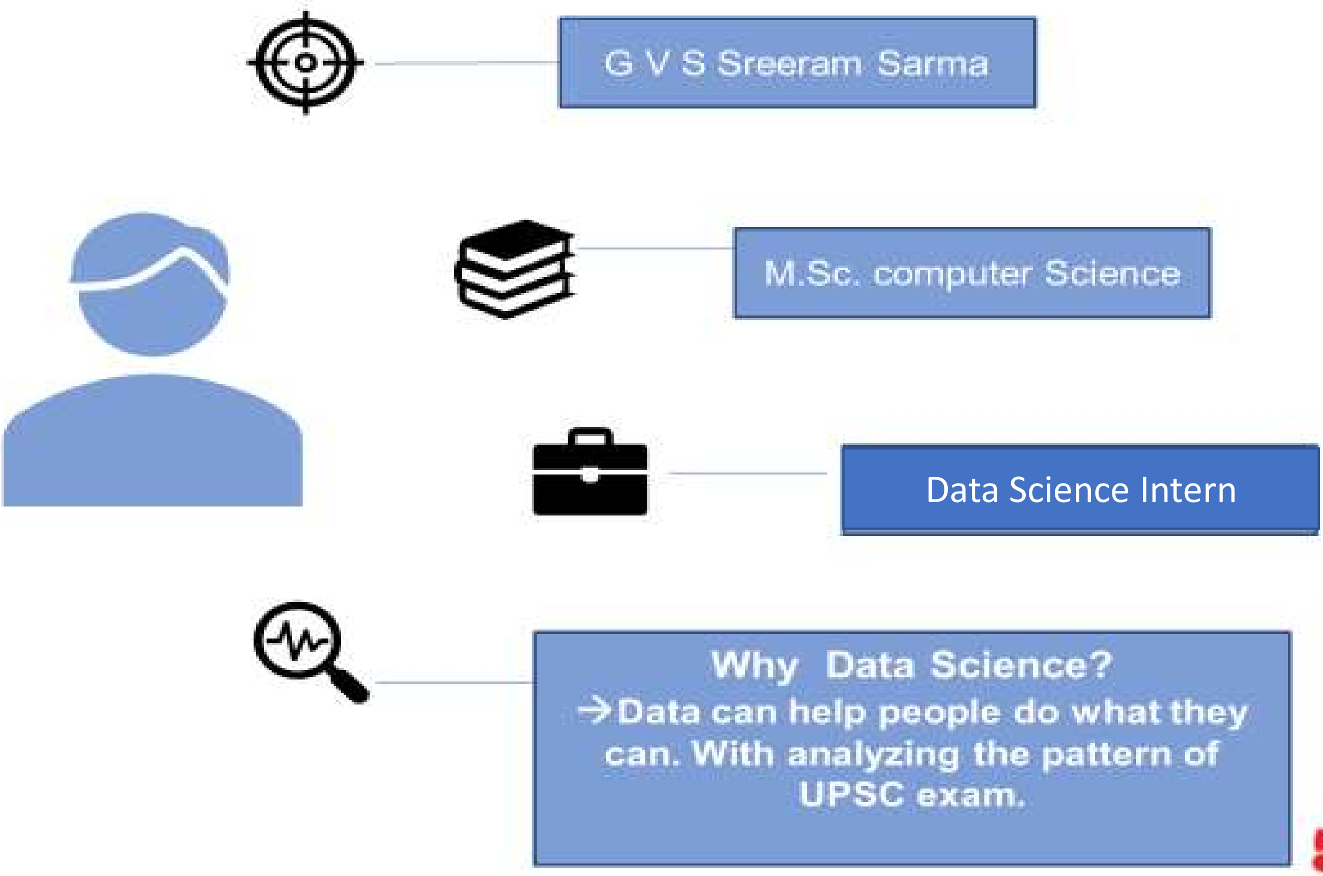
About me



G V S Sreeram Sarma

M.Sc. computer Science

Data Science Intern

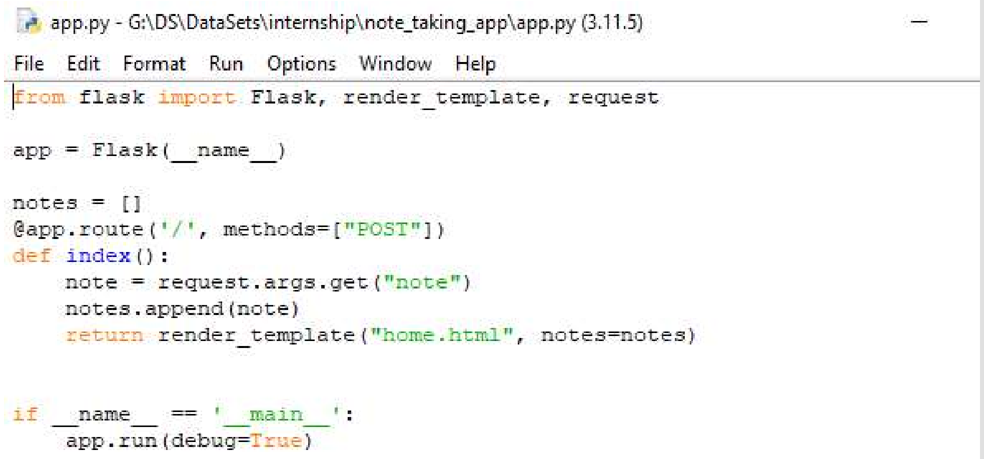
Why Data Science?

→Data can help people do what they can. With analyzing the pattern of UPSC exam.

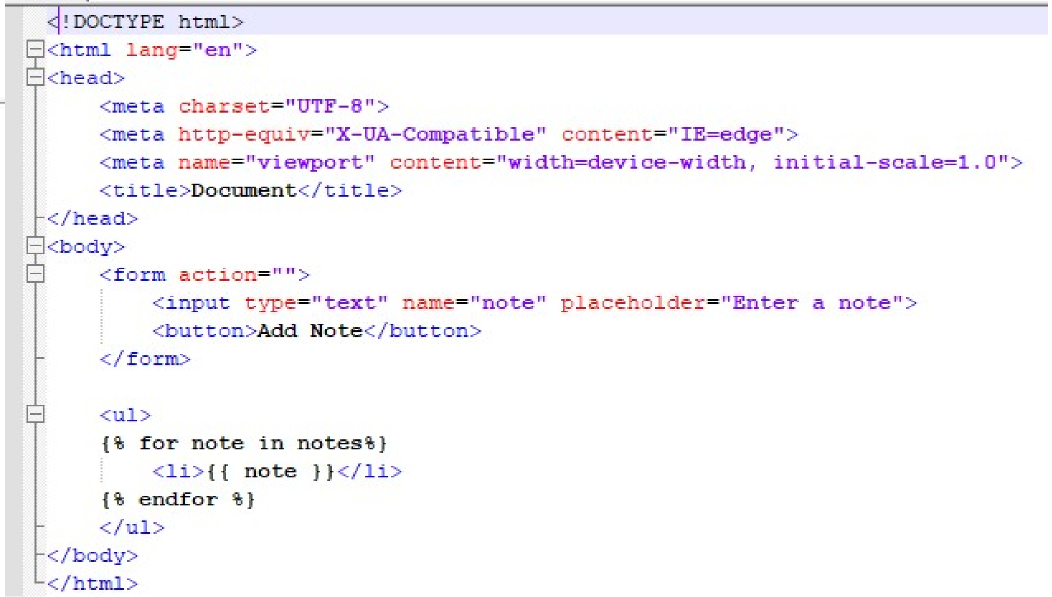
OBJECTIVE OF THE PROJECT

- **To find the Bugs in the Note Making application AND.**
- **To fix the Existing Code and Make the application to work intended.**

Initial Code:


app.py - G:\DS\DataSets\internship\note_taking_app\app.py (3.11.5)
File Edit Format Run Options Window Help

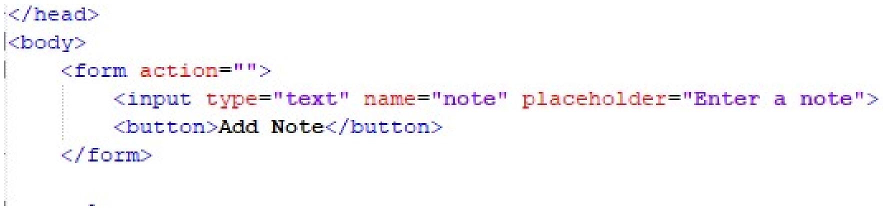
```python
from flask import Flask, render_template, request

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)
```



```html
<!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>
    <form action="">
        <input type="text" name="note" placeholder="Enter a note">
        <button>Add Note</button>
    </form>

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

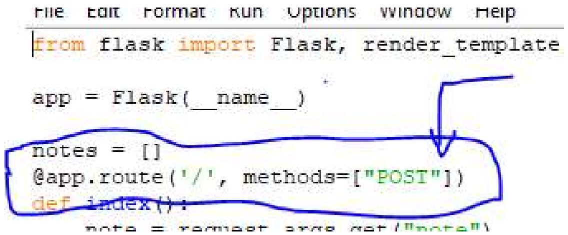
Identify Bugs

1.There are some missing parts in HTML file which defines the functionality of the form.



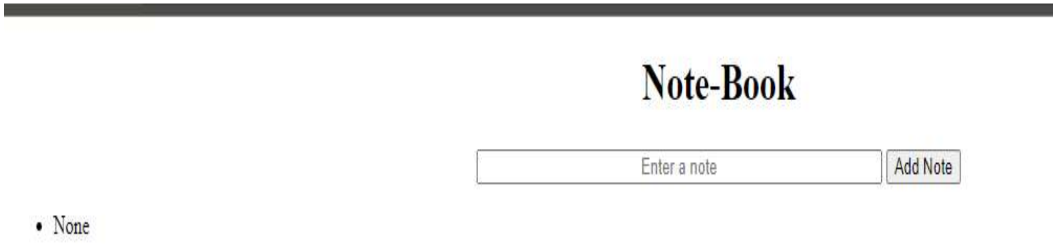
```
</head>
<body>
    <form action="">
        <input type="text" name="note" placeholder="Enter a note">
        <button>Add Note</button>
    </form>
```

2.Here we can observe that “GET” method is missing

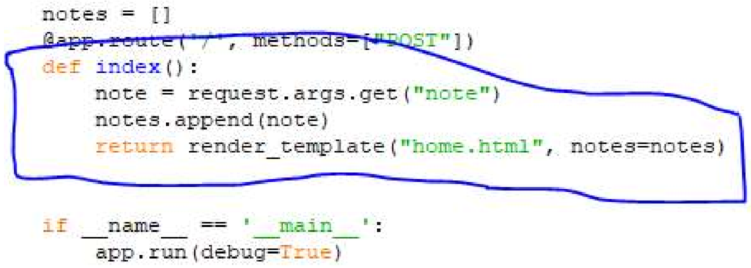


```
from flask import Flask, render_template

app = Flask(__name__)

notes = []
@app.route('/', methods=["POST"])
def index():
    note = request.args.get("note")
```

3. In Index() default “GET” method is executing and NONE is getting appended.



- None



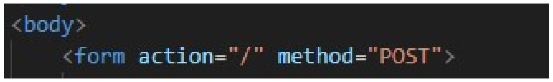
```
notes = []
@app.route('/', methods=["POST"])
def index():
    note = request.args.get("note")
    notes.append(note)
    return render_template("home.html", notes=notes)

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

RESOLUTION:

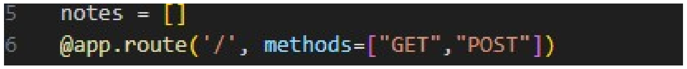
1.We can fix this by adding”/” in action attribute in the form ,”POST” in method name with type=“submit” In button tag.

2.We can resolve the “Method not allowed” by providing Request method “GET”.

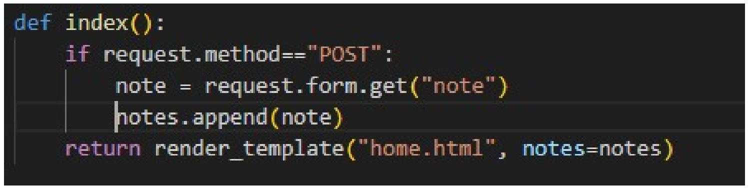
3. The values must be appended only when Method “POST” is requested.



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

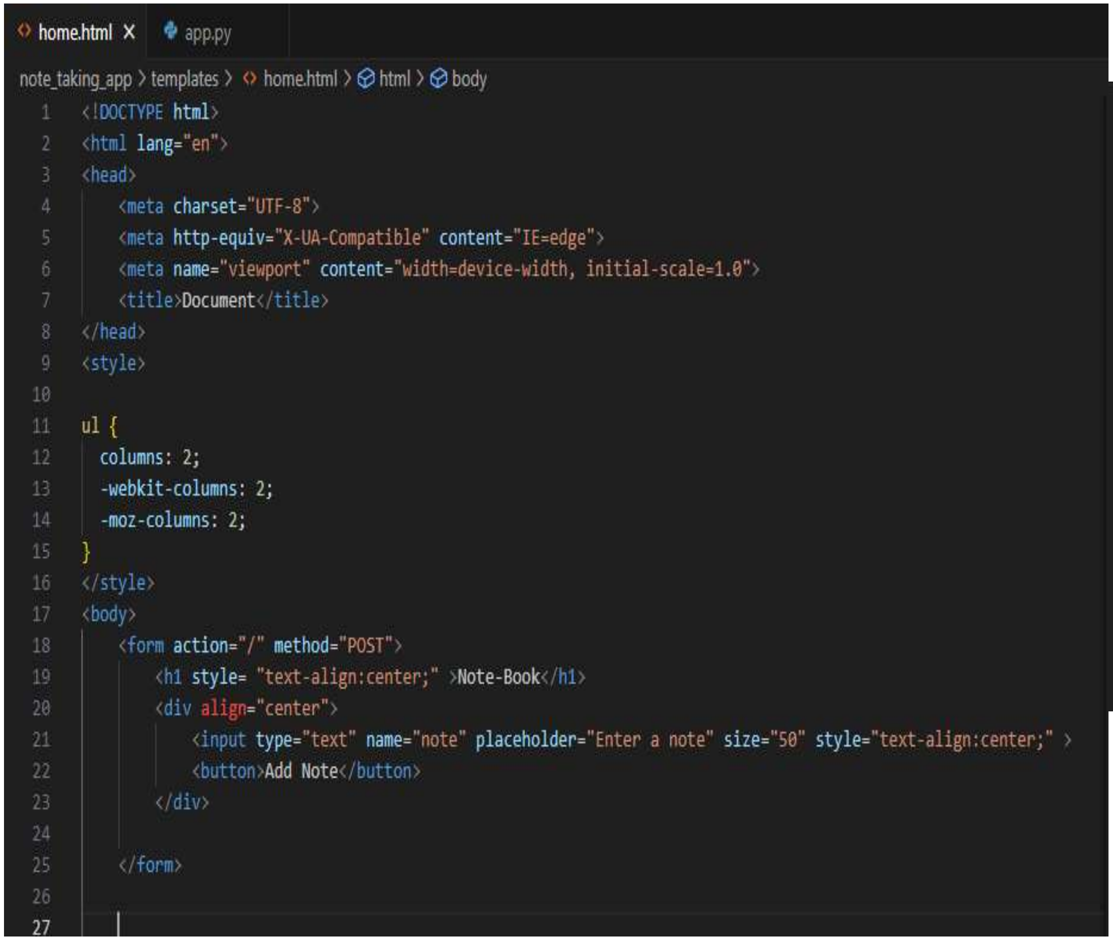


```
notes = []
@app.route('/', methods=["GET","POST"])
```

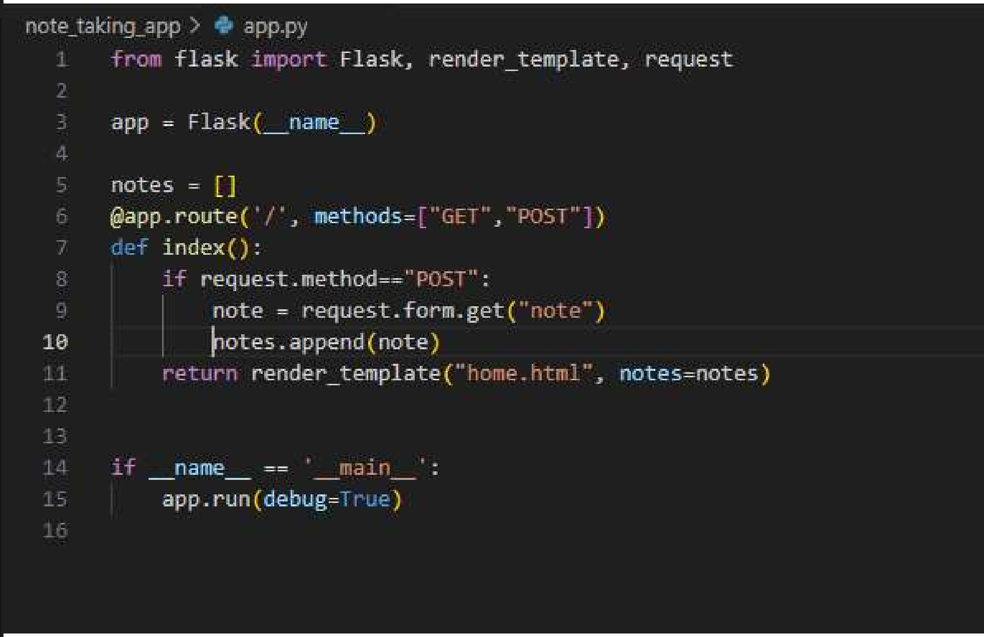


```
def index():
    if request.method=="POST":
        note = request.form.get("note")
        notes.append(note)
    return render_template("home.html", notes=notes)
```

FIXED CODE



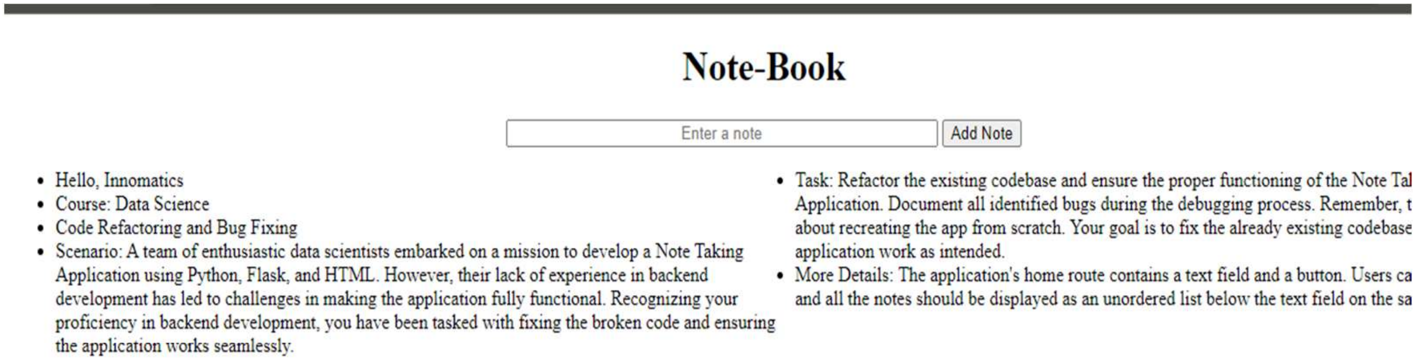
```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<style>

ul {
  columns: 2;
  -webkit-columns: 2;
  -moz-columns: 2;
}
</style>
<body>
    <form action="/" method="POST">
        <h1 style= "text-align:center;" >Note-Book</h1>
        <div align="center">
            <input type="text" name="note" placeholder="Enter a note" size="50" style="text-align:center;" >
            <button>Add Note</button>
        </div>

    </form>


```



```python
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)

```

CONCLUSION:

- The Note Making Application ("Note-Book") was not working as expected.
- By Identifying , Fixing Bugs and Refactoring the code.
- Final OutCome:



Note-Book

- Hello, Innomatics
- Course: Data Science
- Code Refactoring and Bug Fixing
- Scenario: A team of enthusiastic data scientists embarked on a mission to develop a Note Taking Application using Python, Flask, and HTML. However, their lack of experience in backend development has led to challenges in making the application fully functional. Recognizing your proficiency in backend development, you have been tasked with fixing the broken code and ensuring the application works seamlessly.
- Task: Refactor the existing codebase and ensure the proper functioning of the Note Tal Application. Document all identified bugs during the debugging process. Remember, t about recreating the app from scratch. Your goal is to fix the already existing codebase application work as intended.
- More Details: The application's home route contains a text field and a button. Users ca and all the notes should be displayed as an unordered list below the text field on the sa

THANK YOU

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