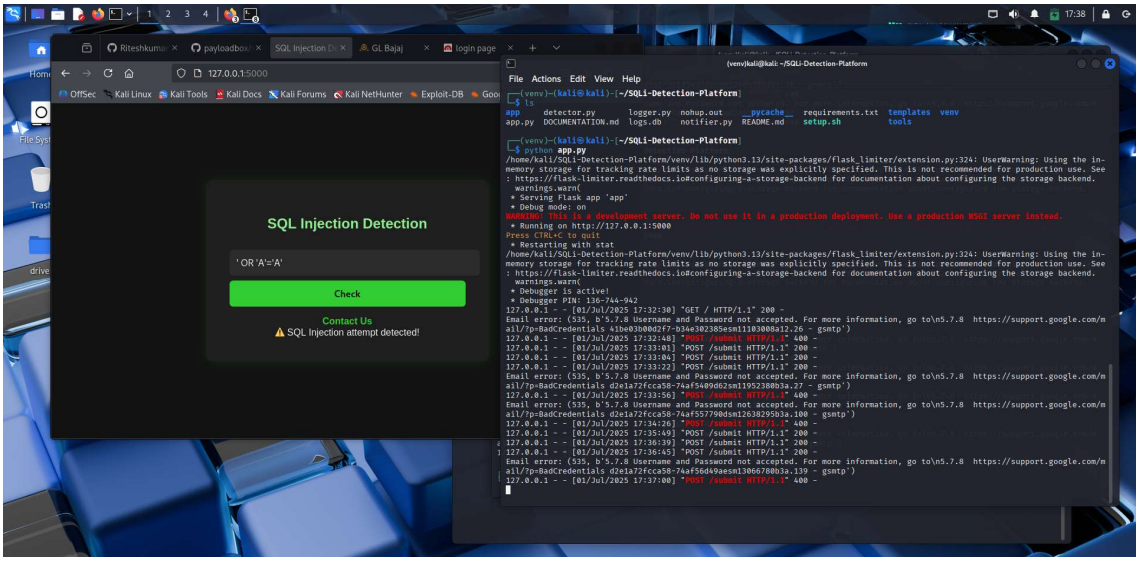
Sample Output:

SQLi Detection Platform – Secure Web Input Monitoring Module

This output highlights the results of a controlled test of the SQL Injection Detection Platform, performed in a Kali Linux environment. The platform is designed to monitor user input in real time, detect potential SQL injection (SQLi) attempts instantly, and alert both the user and administrators via a secure Gmail notification system.



🛡️ Detection Event Overview

During each test session, the platform performs the following actions:

- 🚨 **Pattern Detection**:
  The system scans for well-known SQL injection patterns like:
  ' OR '1'='1, UNION SELECT, --, and DROP TABLE.
  It uses regular expressions to catch suspicious input before it can reach the backend.

- ⚠️ **On-Screen Alert**:
  As soon as an injection attempt is detected, the user sees a clear warning message:

  ⚠️ SQL Injection attempt detected!

- 🧱 **Backend Protection:**
  The backend (powered by Flask) automatically blocks the malicious input by returning an HTTP 400 Bad Request, ensuring the attack does not proceed.

📩 Real-Time Gmail Alerts

To keep the admin informed, the platform sends an instant alert email through Gmail. Each alert contains:

- The injection payload detected
- The timestamp of the attempt
- The source IP address (e.g., 127.0.0.1 for local tests)
- Basic HTTP request information

All emails are securely sent over TLS using Gmail's SMTP server, and are automatically scanned for security. This ensures alerts are reliable and confidential.

📃 Terminal Logging & Evidence

Each detection event is logged in real time in the Flask server console. For example:

[01/Jul/2025 17:32:41] "POST /submit HTTP/1.1" 400 -

These logs serve as direct evidence of the SQLi detection and prevention in action.

🧠 System Metadata Summary

Every session also captures system-level details to assist with documentation and analysis:

- Username (if applicable)
- Timestamp of the event
- Public and private IPs
- OS: Kali Linux (2025.2)
- Tools: Python 3.13, Flask
- Test URL: http://127.0.0.1:5000
