Secure Coding Review Report

# ✅ Secure Coding Review Report – File Handling Vulnerabilities

\*\*Internship:\*\* CodeAlpha Cyber Security Internship

\*\*Task:\*\* Task 3 – Secure Coding Review

\*\*Focus Area:\*\* File Handling Vulnerabilities

\*\*Language:\*\* Python

\*\*Tool Used:\*\* Bandit (Static Analysis)

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## 🔎 Identified Vulnerability #1: Unrestricted File Access

### 🚨 Vulnerable Code

```python

filename = input("Enter the filename to read: ")

with open(filename, "r") as f:

print(f.read())

**Risk Level: High**

**💥 Impact:**

* Path traversal attacks (e.g., ../../etc/passwd)
* Reading unauthorized or system-sensitive files

**✅ Recommended Fix:**

* Restrict file access to a safe directory
* Sanitize the filename input

Secure Code After Fix:-

import os

SAFE\_DIR = "user\_files"

filename = os.path.basename(input("Enter filename: ")) # Removes ../

filepath = os.path.join(SAFE\_DIR, filename)

if os.path.exists(filepath):

with open(filepath, "r") as f:

print(f.read())

else:

print("File not found or access denied.")