
4Geeks
Academy
CYBERSECURITY

INTRODUCTION

Unauthorized server access can lead to:

System exploration

File manipulation

Data theft

Ransomware attacks

Service disruption

Consequences:

Financial & reputational damage

Example:

Marks & Spencer: £300M loss

7-week operational disruption

COMMON MINDSET

Common workplace mindset:

“It won’t happen to me — the world is too big.”

Reality:

Many still use weak passwords

People underestimate security risks

Belief leads to increased vulnerability

CYBER ATTACKERS

Cyber attackers are getting more sophisticated

We must adopt basic security practices (NIST & ISO 27001):

✅ Use strong, complex, unpredictable passwords

✅ Enable two-factor authentication (2FA)

✅ Keep systems & apps updated with latest patches

WHAT ACTUALLY HAPPENED?

Security assessment conducted on Debian WordPress server

Key finding:

Root login via SSH using a password

Source IP: 192.168.0.134

Conclusion:

Critical security gap

Required immediate action

KEY RESULTS

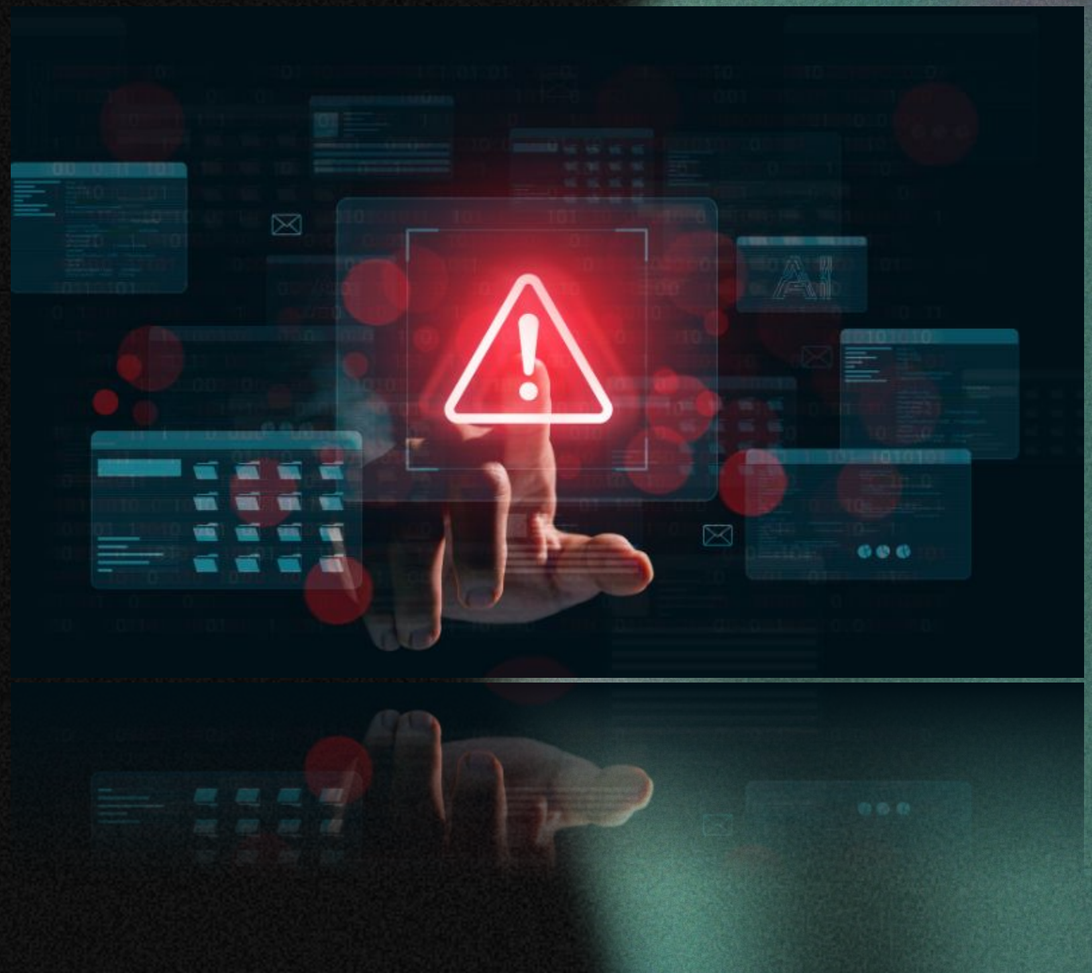
🔍 **Security assessment results:**

- 11 vulnerabilities found across critical systems
- 6 high-risk and 5 medium-risk issues
- ✅ All vulnerabilities successfully remediated

SECURITY ISSUES IDENTIFIED

6 High-Risk Vulnerabilities Identified:

- 🔓 Weak system passwords
- ⚙️ WordPress admin weak credentials
- 🛢️ Database weak passwords
- 🔑 SSH root access enabled
- 📤 Insecure FTP service
- ✉️ Mail server weak password



SECURITY ISSUES IDENTIFIED

5 Medium-Risk Vulnerabilities Identified:

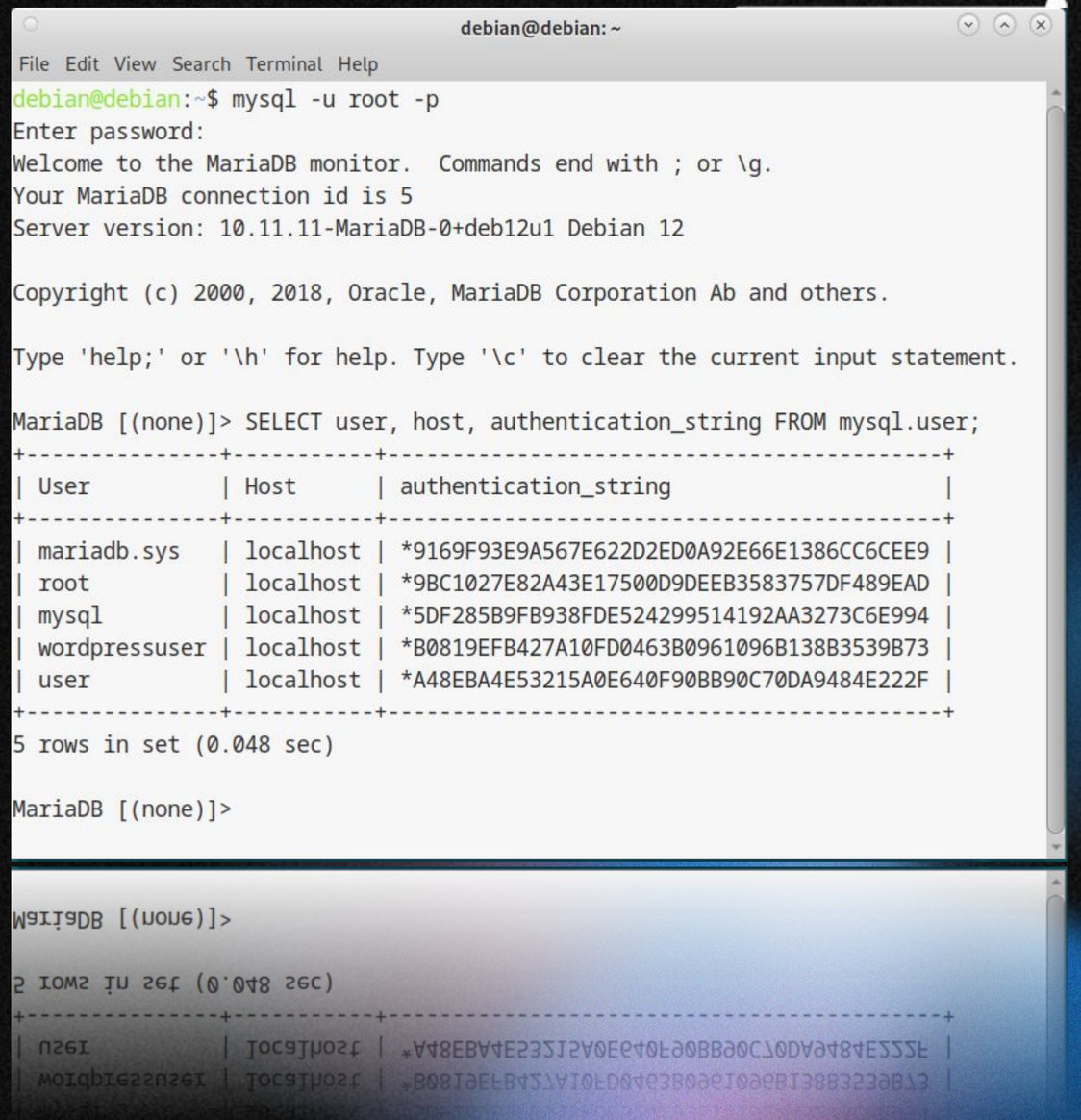
- 🔐 Untrusted SSL certificate
- ⚠️ Outdated Intel Media SDK
- 🧩 WordPress security issues
- ⚙️ Apache misconfigurations
- 🌐 Multiple vulnerabilities on port 80

IMPACT OF THE VULNERABILITIES FOUND

These weaknesses could have allowed attackers to take control of systems, steal sensitive data, or interrupt business activities.

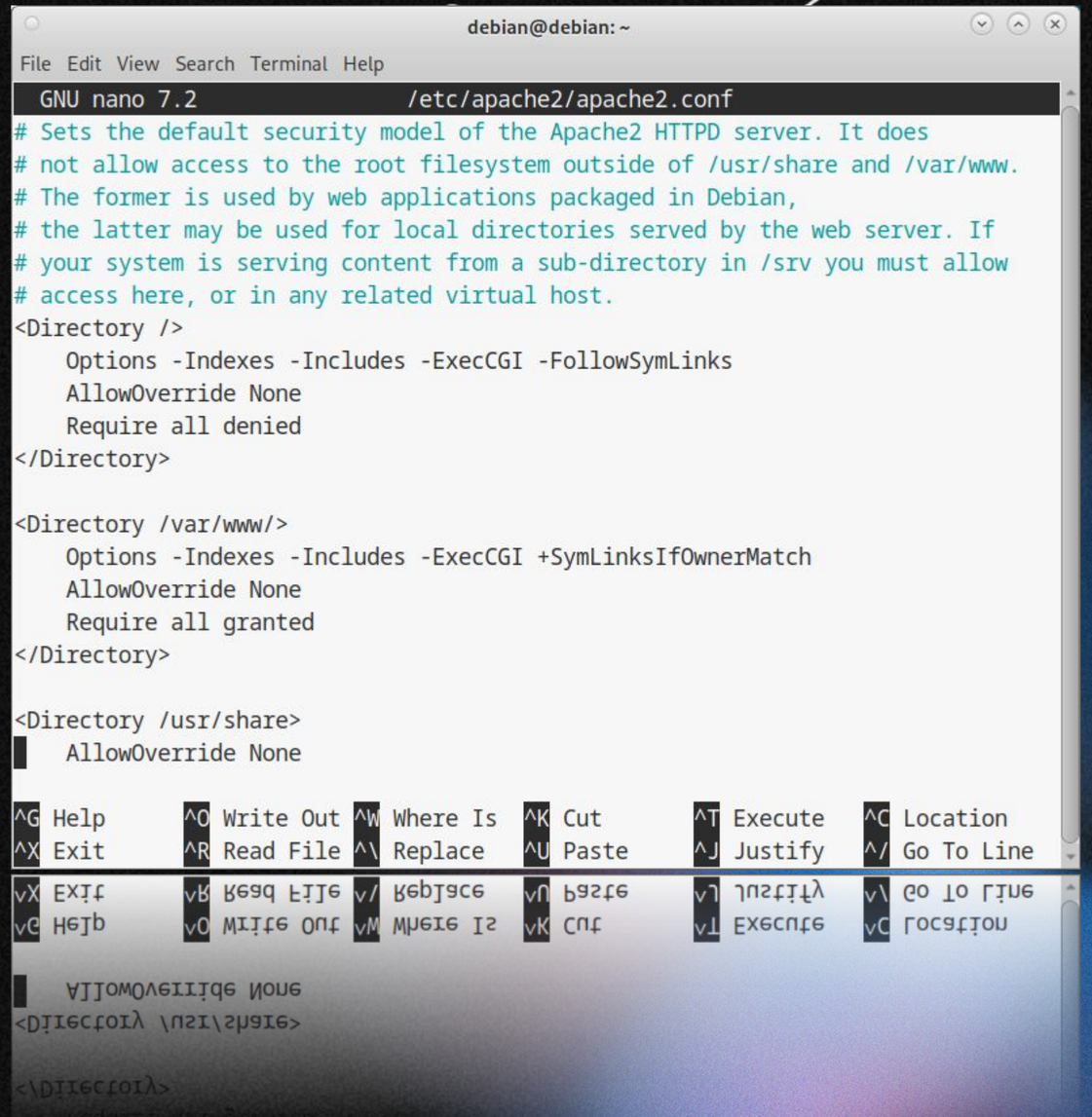
Authentication & Access Control Improvements

- ✅ Replaced weak passwords
- 🔒 Disabled SSH root login
- 👤 Created secure WordPress admin account
- 🛡️ Updated database passwords



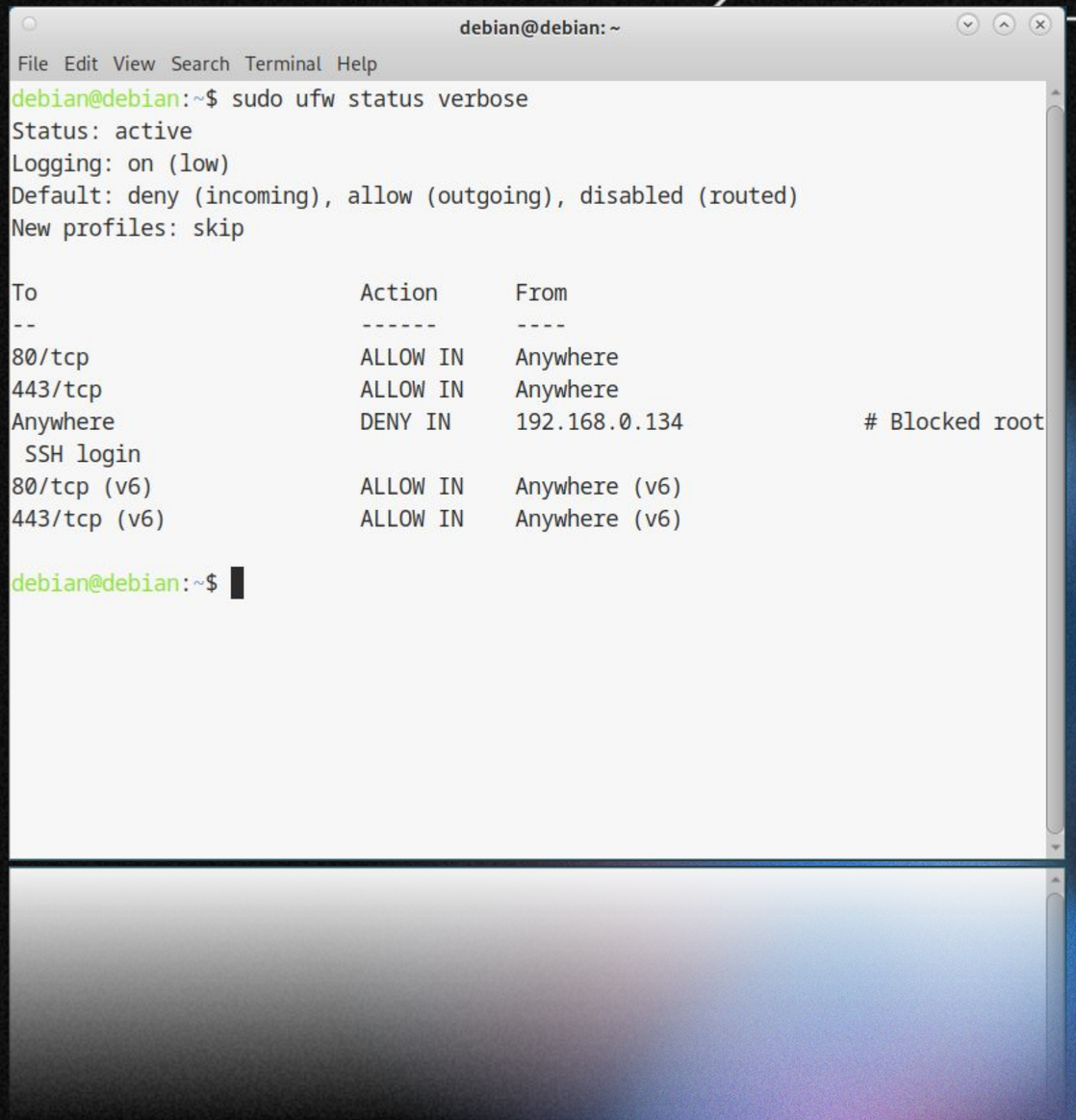
Service Security Enhancements

- 🔁 Replaced insecure FTP
- 🛡️ Configured Apache security headers
- 🔄 Updated WordPress core, plugins, and themes
- 🧹 Removed unused Intel Media SDK



System Hardening Measures

- 🔁 Changed SSH port
- ⏱️ Set connection limits & timeouts
- 🔐 Secured file permissions
- 🚫 Blocked access to sensitive config files



BUSINESS IMPACT

- 🛡️ Strengthened database security
- 🔒 Hardened WordPress
- 🚫 Blocked unauthorized access
- 📡 Secured communications

- 📈 Security level improved
- ✅ 100% remediation
- 🔐 Proactive measures

TOOLS AND TECHNOLOGIES USED IN THE ANALYSIS

Exterro FTK Imager	[1] For creating forensic disk images.
Autopsy	[2] For digital forensic investigation and analysis.
Kali Linux	[3] Is a security testing platform.
Nmap	[4] For network discovery and vulnerability scanning.
Rootkit Hunter	[5] To detect rootkits, backdoors, and local exploits.
Hashcat	[6] For password recovery and strength testing.
Nessus Essentials	[7] For identifying and assessing system vulnerabilities.

CHALLENGES

🔥 Project was challenging at first
🤔 Initial thought: “I can't do it.”
📚 Daily research and persistence led to success
✅ Eventually found the solution

WHY CHOOSE A CAREER IN CYBER SECURITY ?

📈 3.5 million cybersecurity jobs unfilled worldwide (2023)
🚀 Work with cutting-edge technologies
🛡️ Protect organizations from cyber threats
🎯 Offers diverse career paths, strong job security & growth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THANK YOU!