TASK 2: ANALYZE A PHISHING EMAIL SAMPLE.

Objective:

To analyze a suspicious phishing email and identify characteristics that confirm it is a phishing attempt.

Tools Used:

Phish Tank	To verify a suspicious URL.
Domain Tools	WHOIS lookup and gather domain registration details.
MxToolbox	Email header analyzer.
VirusTotal	To scan suspicious URLs and attachments.

Procedure:

Step 1. Obtain a sample phishing

Sample Phishing Email:

Subject: Urgent: Account Suspension Notice

From: support@amaz0n-security.com

Body:

Dear Customer,

We've detected unusual activity in Amazon account. For your security, your account has been temporarily suspended.

Please verify your identity by logging in using the secre link below:

http://amazn-security-check.com/login

Failure to respond within 24 hours will result in permanent suspension.

Thank you,

Amazon Security Team

Attachment: verify_account.zip

Step 2. Examine sender's email address for spoofing.

- "Amazon" is misspelled.
- The word "Body" is not used in an email.

The domain name may look legitimate but it's a fake website.

Step 3. Check email headers for discrepancies.

- Extract full email headers from your email client.
- Subject should come below the sender's address.

Look for:

- IP address origin
- SPF/DKIM/DMARC failures
- Return-Path mismatches

Step 4. Identify suspicious links or attachments.

- http://amazn-security-check.com/login
- Attachment: verify account.zip

Step 5. Look for urgent or threatening language in the email body.

• "Failure to respond within 24 hours will result in permanent suspension."

Step 6. Note any mismatched URLs.

- Do not click links—hover over them to see real URL.
- Scanning with tools like VirusTotal would likely flag it as malicious.

Check for:

- Mismatched or suspicious domains (login-amaz0n.com)
- Shortened URLs (e.g., bit.ly)

Step 7. Verify presence of spelling or grammar errors.

- Wrong spelling: "using the secre link below:"
- Grammar error: "activity in Amazon account"

Phishing Report:

Subject: Urgent: Account Suspension Notice

From: support@amaz0n-security.com

Email Header:

Return-Path: <support@amaz0n-security.com>

Received: from mail.amazn-security-check.com ([192.0.2.10]) by mx.google.com with ESMTP id x10si12345678qke.123.2025.06.25.11.00.00

for <victim@example.com>;

Wed, 25 Jun 2025 11:00:00 -0700 (PDT)

Received-SPF: softfail (google.com: domain of transitioning support@amaz0n-security.com does not designate 192.0.2.10 as permitted sender)

Authentication-Results: mx.google.com;

spf=softfail (google.com: domain of transitioning support@amaz0n-security.com does not designate 192.0.2.10 as permitted sender) smtp.mailfrom=support@amaz0n-security.com;

dkim=none;

dmarc=fail (p=REJECT sp=REJECT dis=NONE) header.from=amaz0n-security.com

Message-ID: <x09876a1234@amaz0n-security.com>

Subject: Urgent: Account Suspension Notice

From: Amazon Security Team <support@amaz0n-security.com>

To: <victim@example.com>

Date: Wed, 25 Jun 2025 11:00:00 -0700

Content-Type: multipart/mixed; boundary="XYZBoundary"

MIME-Version: 1.0

Header Analysis:

Dkim Signature Error:

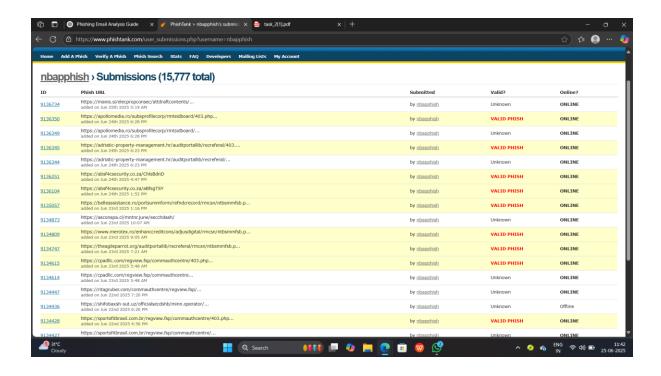
No DKIM-Signature header found. There must be at least one aligned DKIM-Signature for the message to be considered aligned.

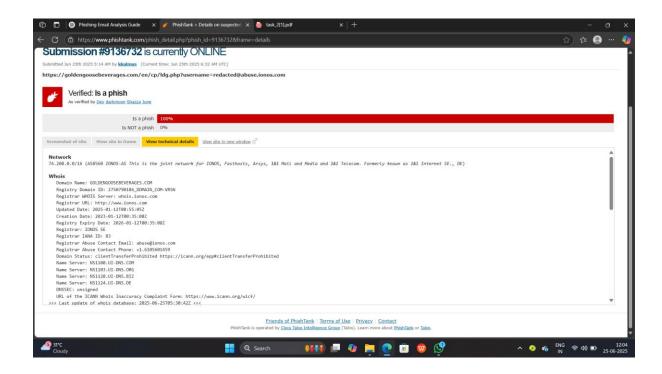
- SPF and DKIM Alignment is incorrect.
- No DMARC Record found.

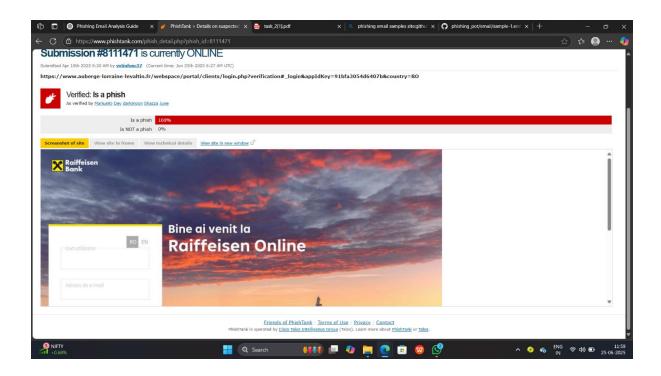
Suspicious Indicators:

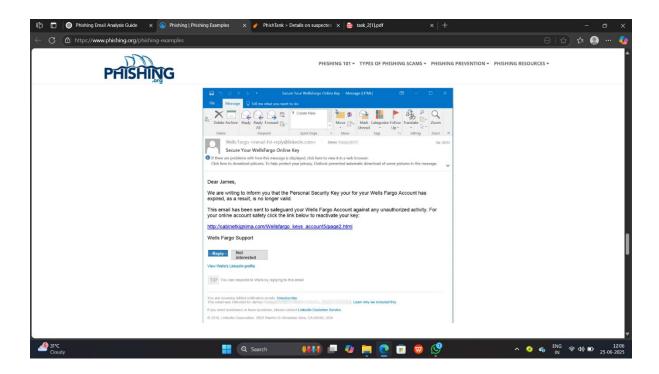
- Sender address: Amazon is misspelled.
- Link in the email: http://amazn-security-check.com/login
- Threatening language: "Failure to respond within 24 hours will result in permanent suspension."
- Attachment: verify account.zip.

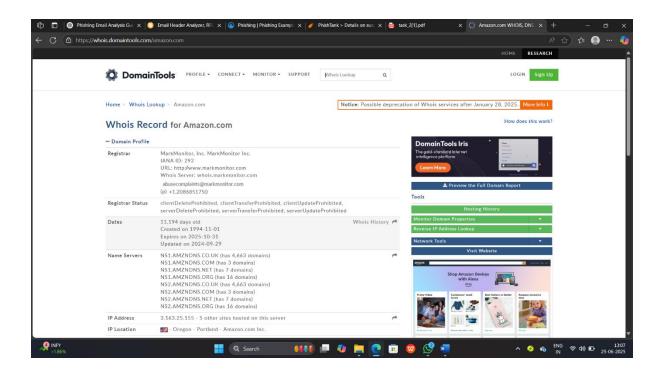
Screenshots:

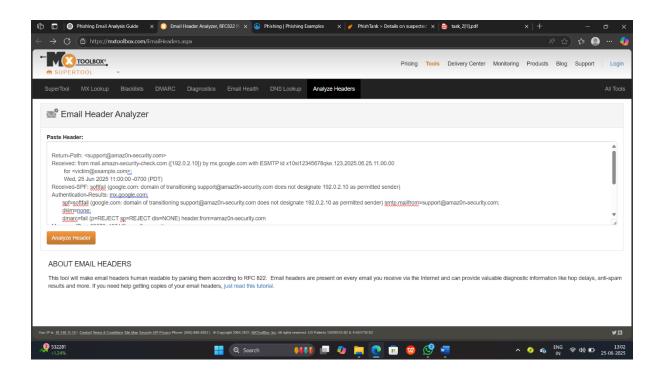


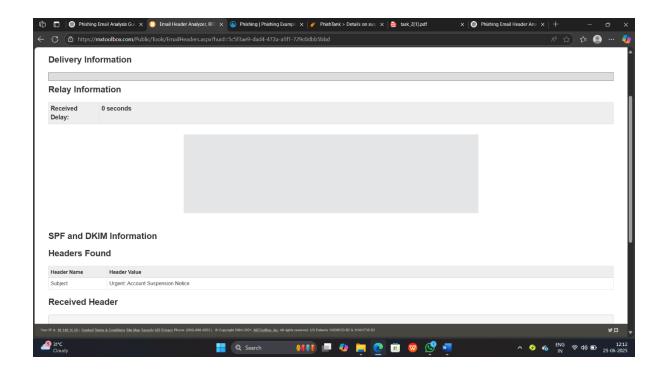


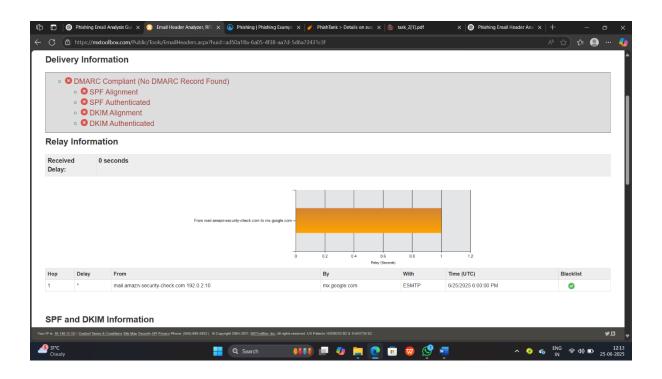












Conclusion:

This email is a clear example of a phishing attempt. It uses a fake sender address, suspicious links, and urgent language to trick the user into clicking on a harmful website. The mismatched URL, possible spelling mistakes, and lack of proper security checks also show that it is not from a trusted source. Such emails should be reported and deleted to stay safe.

References:

- https://mxtoolbox.com
- https://www.phishing.org
- https://www.phishtank.com
 https://whois.domaintools.com
 https://chatgpt.com