



II3140 Web and Mobile  
Application Development



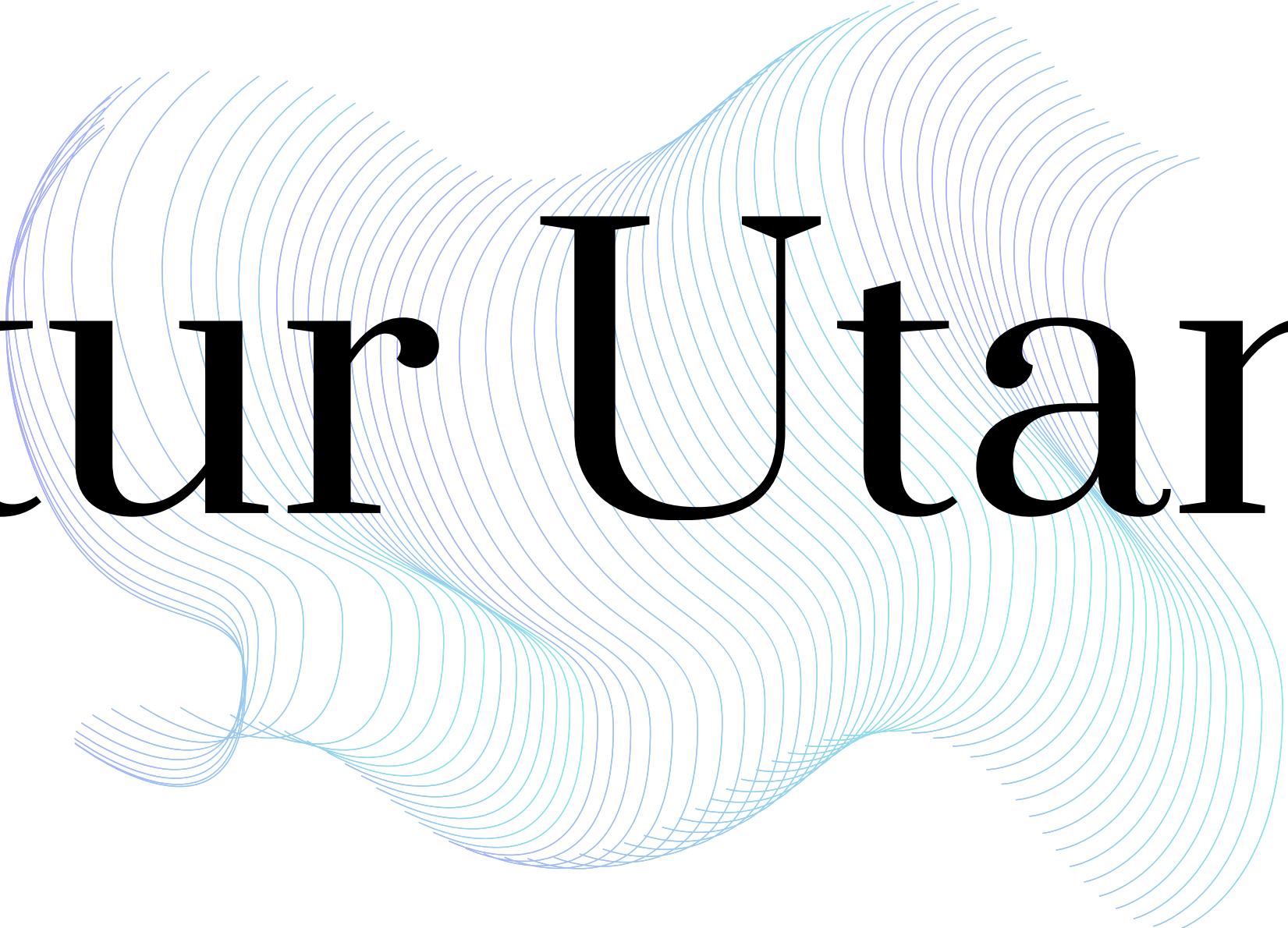
Khairunnisa Azizah

18223117



# Apa itu PhishX?

PhishX adalah simulator berbasis web yang dirancang untuk membantu mahasiswa mengenali serta menghindari serangan phishing melalui pengalaman langsung yang aman. Simulator ini menampilkan email palsu yang menyerupai sumber resmi serta menyediakan kuis interaktif untuk melatih kemampuan deteksi phishing.



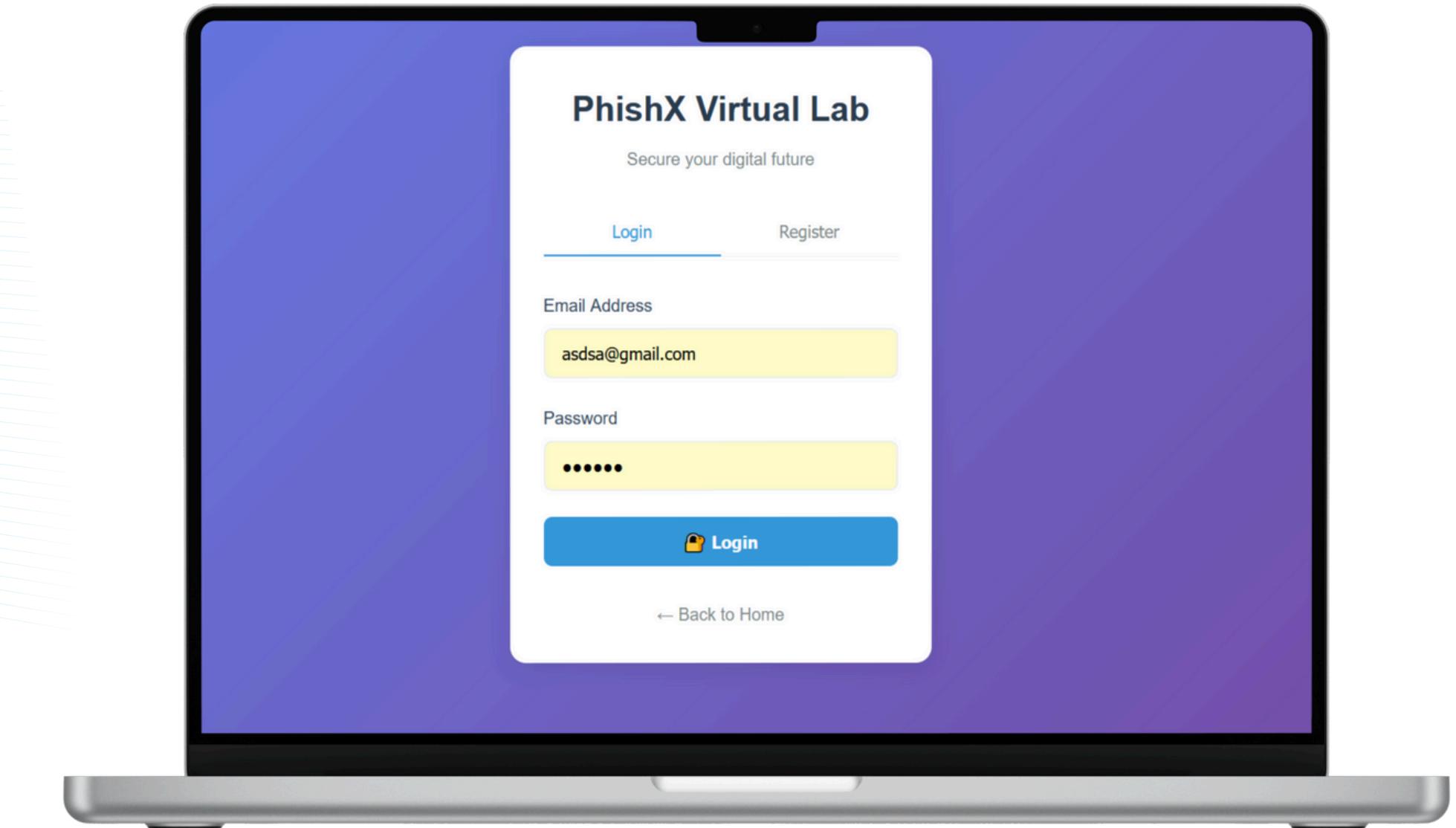
Fitur Utama

# Login Account

Register Account

Login

Back Home

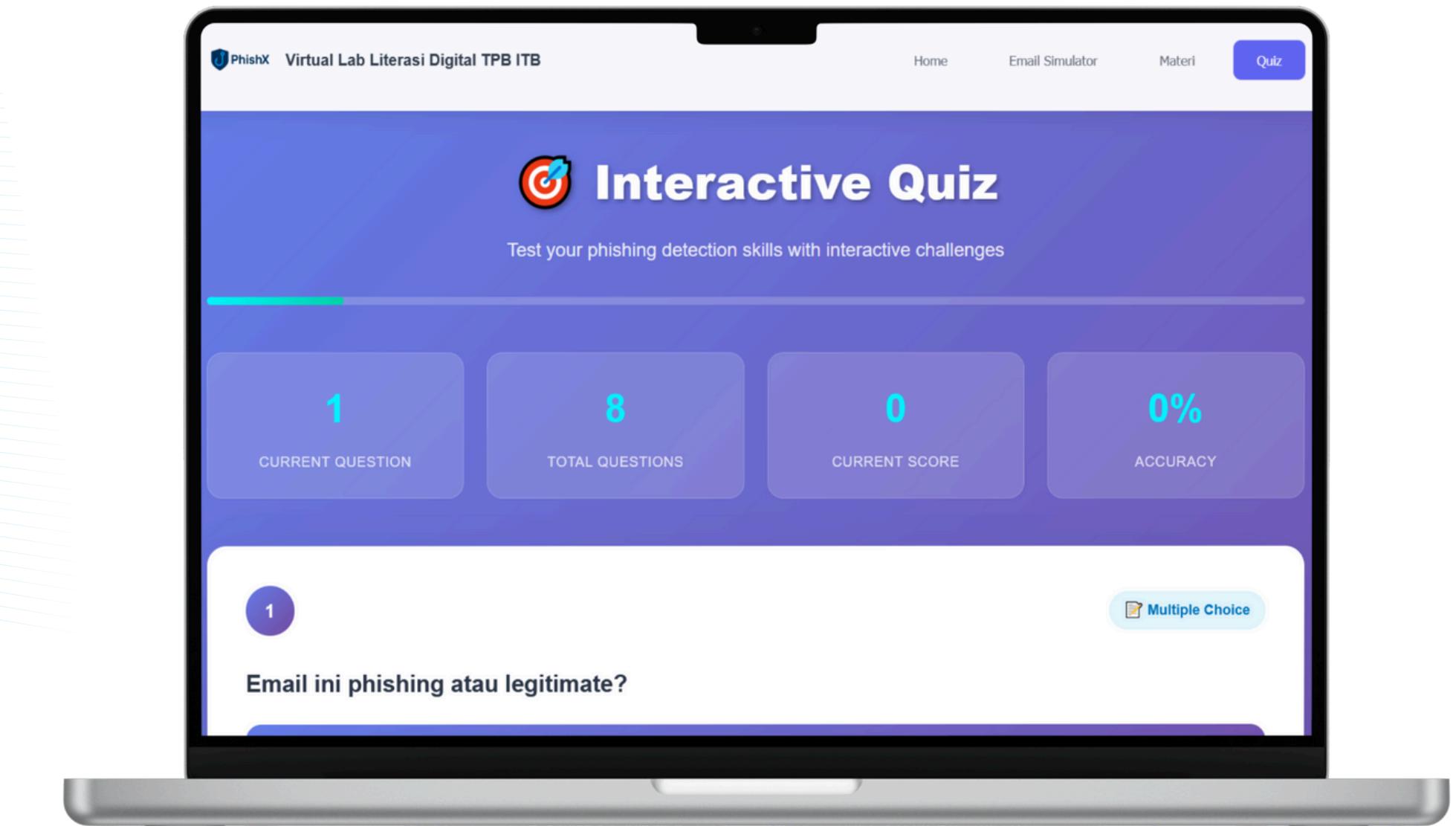


# Interactive Quiz

Multiple choice

Drag-and-drop

Scenario-based

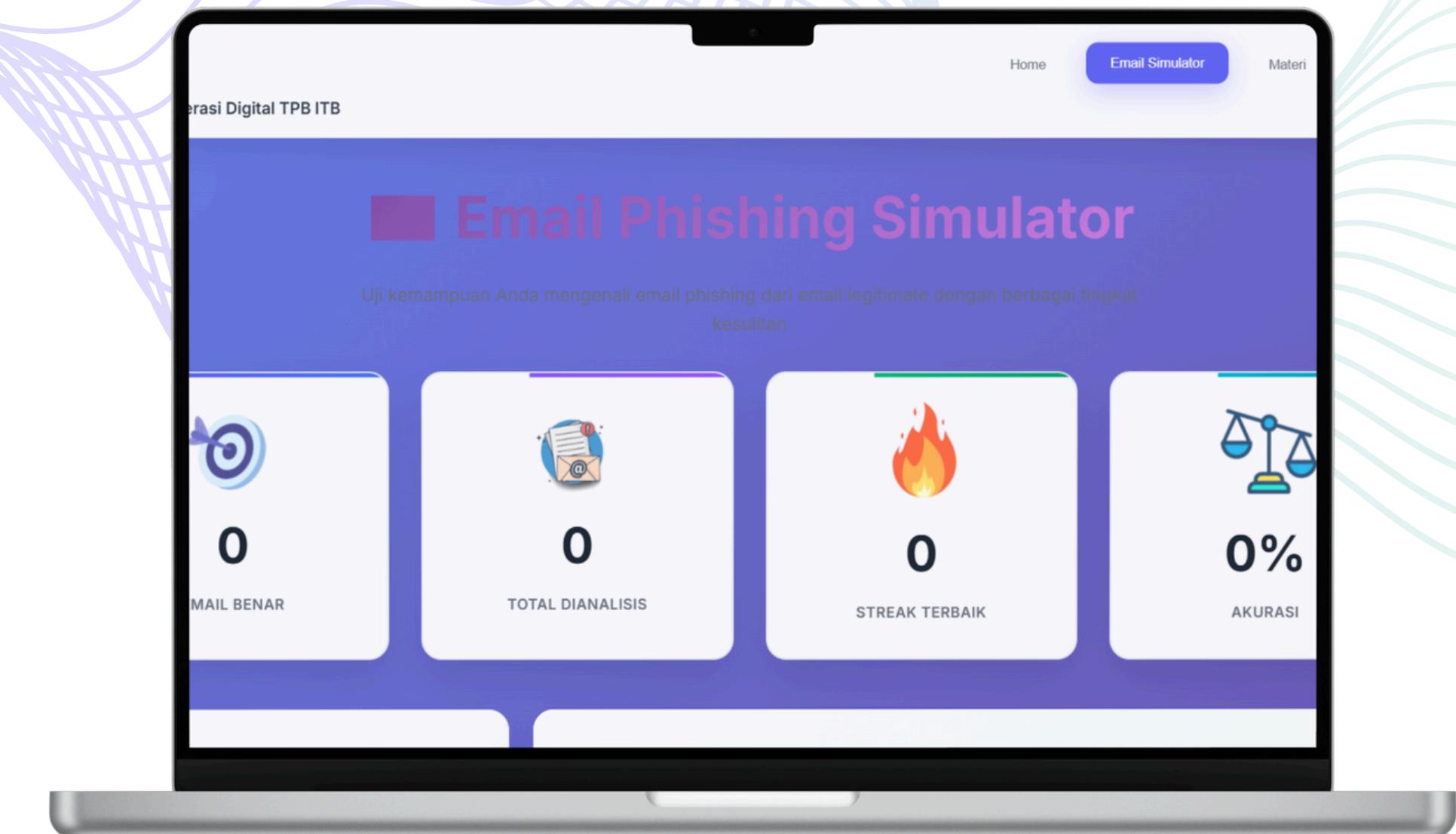


# Email Phishing Simulator

Fake inbox  
(legit vs phishing)

Score system

Proyek

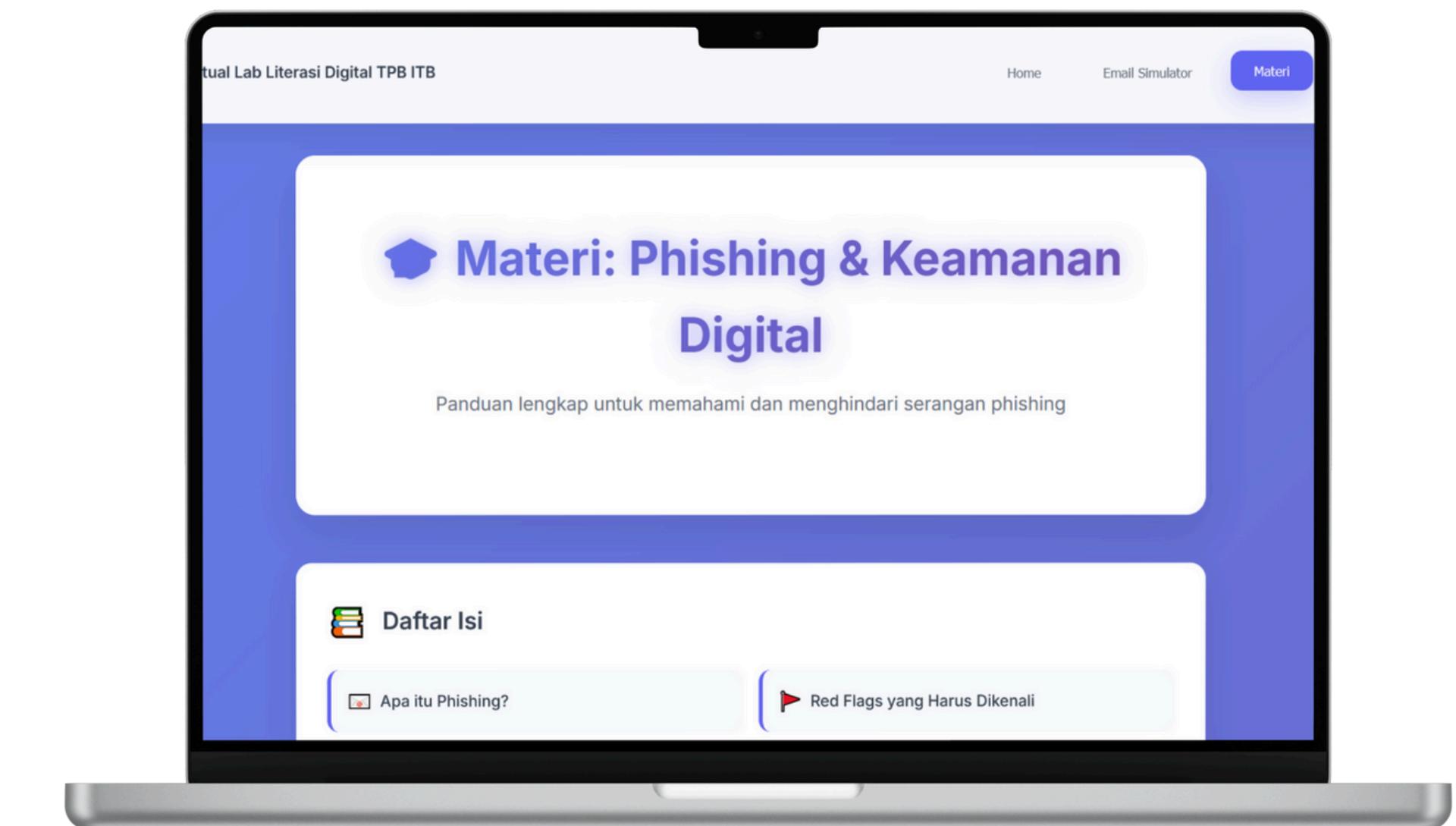


# Educational Dashboard

Statistik deteksi  
phishing

Modul  
pembelajaran & tips

Studi kasus  
phishing nyata



# Teknologi Implementasi

# Frontend



## HTML 5

Struktur halaman, penggunaan elemen semantik (<article>, <section>).



## CSS 3

Animasi, warning, desain responsive, tampilan fake inbox.



## JavaScript

Logic kuis, sistem skor, dynamic content, modul edukasi.

# Backend



**Express.js**



**Neon**



**Node.js**

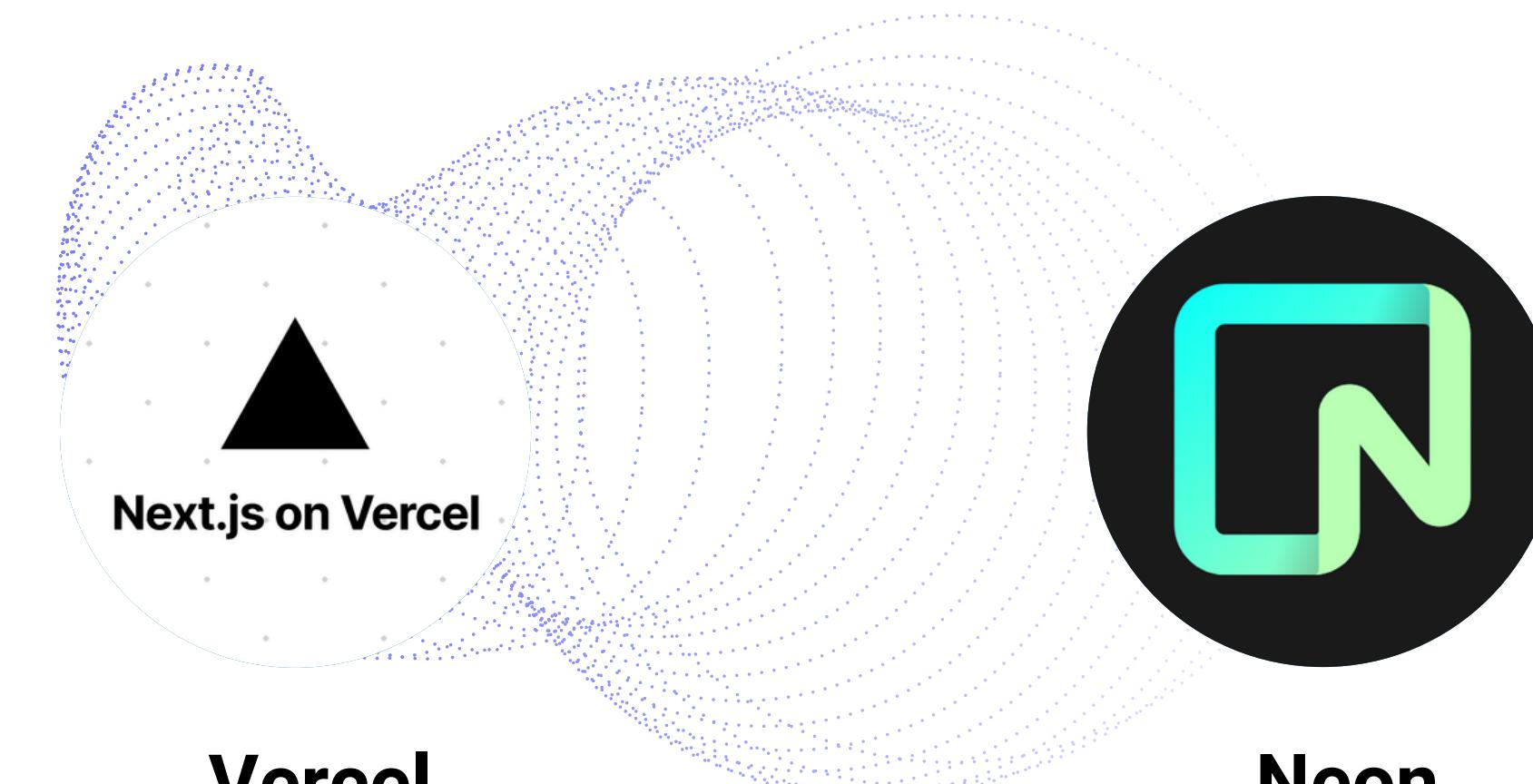


**JavaScript**

# Deployment



**Railway**



**Vercel**

# Database



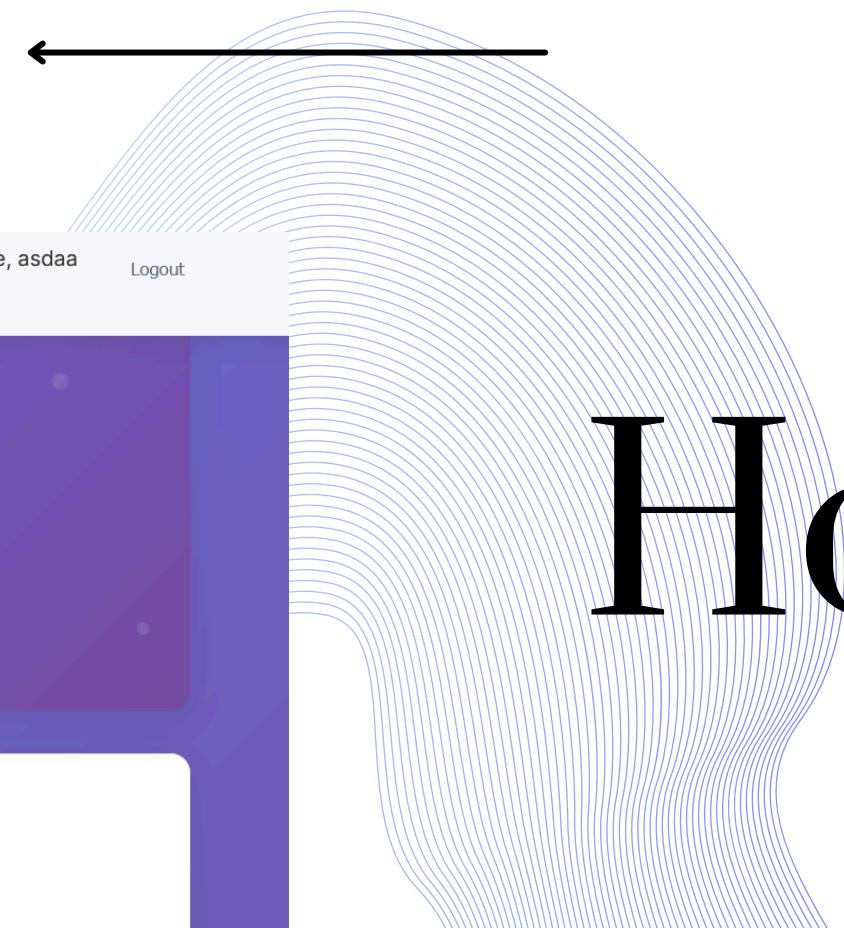
**Neon**

# Dokumentasi

🔗 <https://phishx.vercel.app/>

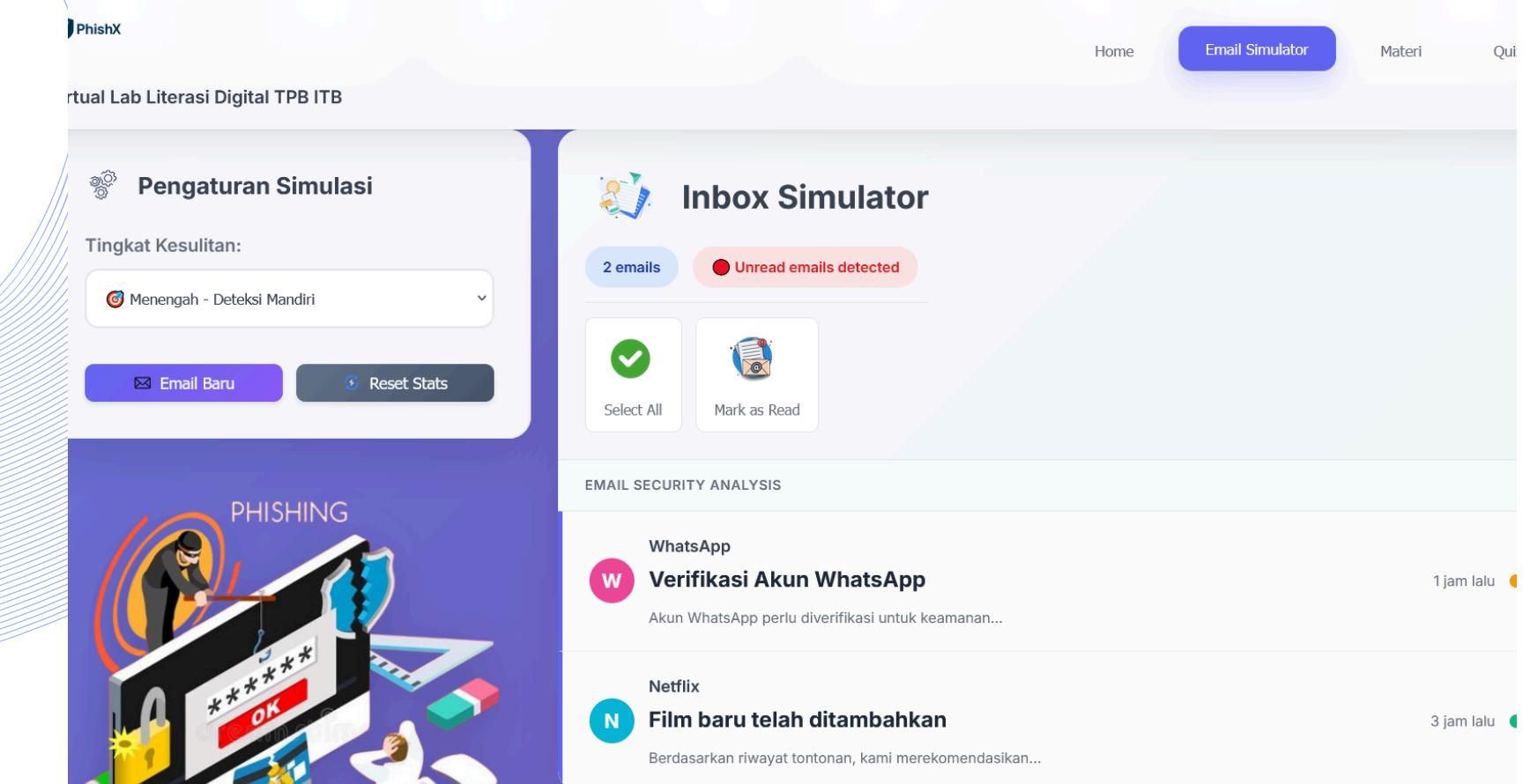


The screenshot shows the PhishX Lab homepage. At the top, there's a navigation bar with links for Home, Email Simulator, Materi, Quiz, Welcome, asdaa, and Logout. The main heading "Selamat Datang di PhishX Lab" is displayed in large white text. Below it, a subtext reads: "Virtual Lab interaktif untuk belajar mengenali dan menghindari serangan phishing online". A blue button labeled "Mulai Belajar" is present. On the left, a section titled "Fitur Unggulan" lists three features: "Interactive Quiz", "Email Simulator", and "Materi Lengkap". Each feature has a brief description and a small icon.



# Homepage

# Simulasi Email Phising



The screenshot shows the "Email Simulator" section of the PhishX Lab. It includes a "Pengaturan Simulasi" (Simulation Settings) panel with a dropdown menu for "Tingkat Kesulitan" (Difficulty Level) set to "Menengah - Deteksi Mandiri" (Medium - Self-detection). There are also "Email Baru" (New Email) and "Reset Stats" buttons. Below this is a decorative illustration of a computer monitor displaying a "PHISHING" warning. To the right is the "Inbox Simulator" panel, which shows two unread emails. One email from WhatsApp is titled "Verifikasi Akun WhatsApp" with the message "Akun WhatsApp perlu diverifikasi untuk keamanan...". Another email from Netflix is titled "Film baru telah ditambahkan" with the message "Berdasarkan riwayat tontonan, kami merekomendasikan...". Both emails have "Select All" and "Mark as Read" buttons.

## Pengaturan Simulasi

Tingkat Kesulitan:

- Menengah - Deteksi Mandiri
- Pemula - Ada Petunjuk Red Flags
- Menengah - Deteksi Mandiri**
- Expert - Phishing Canggih

←

### Email Analysis

From: Netflix <info@netflix.com>  
Film baru telah ditambahkan  
3 jam lalu

Halo,

Film dan series baru telah ditambahkan:

- Stranger Things Season 4
- The Crown Season 5

Selamat menonton!

Tim Netflix

Your Classification

Based on your analysis, classify this email:

- Legitimate This email is safe and genuine
- Phishing This email is suspicious

### Tips Keamanan

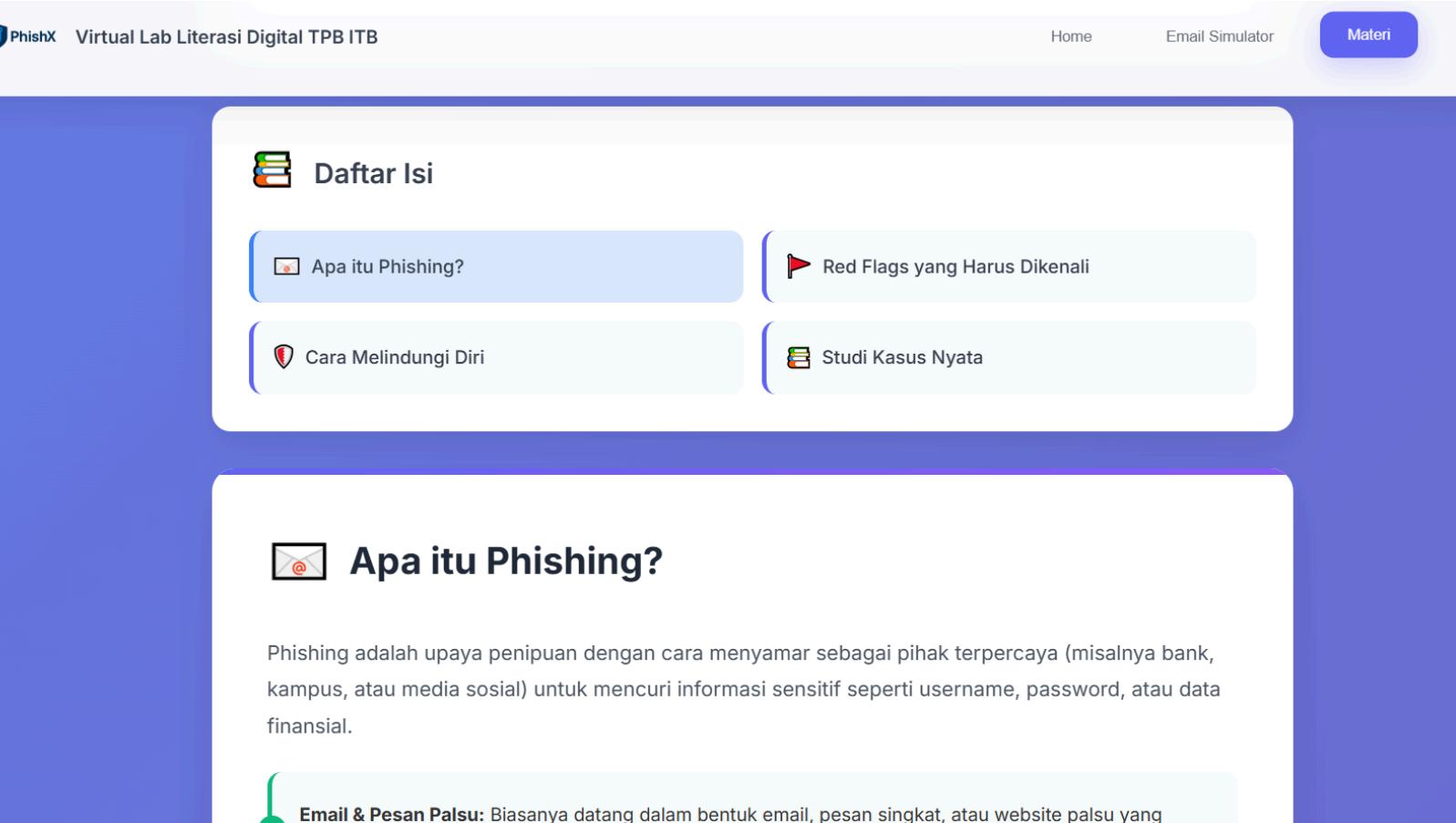
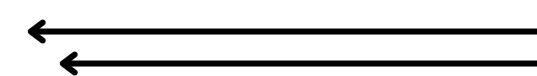
**Hover Sebelum Klik**  
Arahkan mouse ke link untuk melihat URL tujuan sebenarnya sebelum diklik.

Sebelum 3/8 Berikut

# Pilih Tingkat Kesulitan

# Analisis Email

# Mini Notes



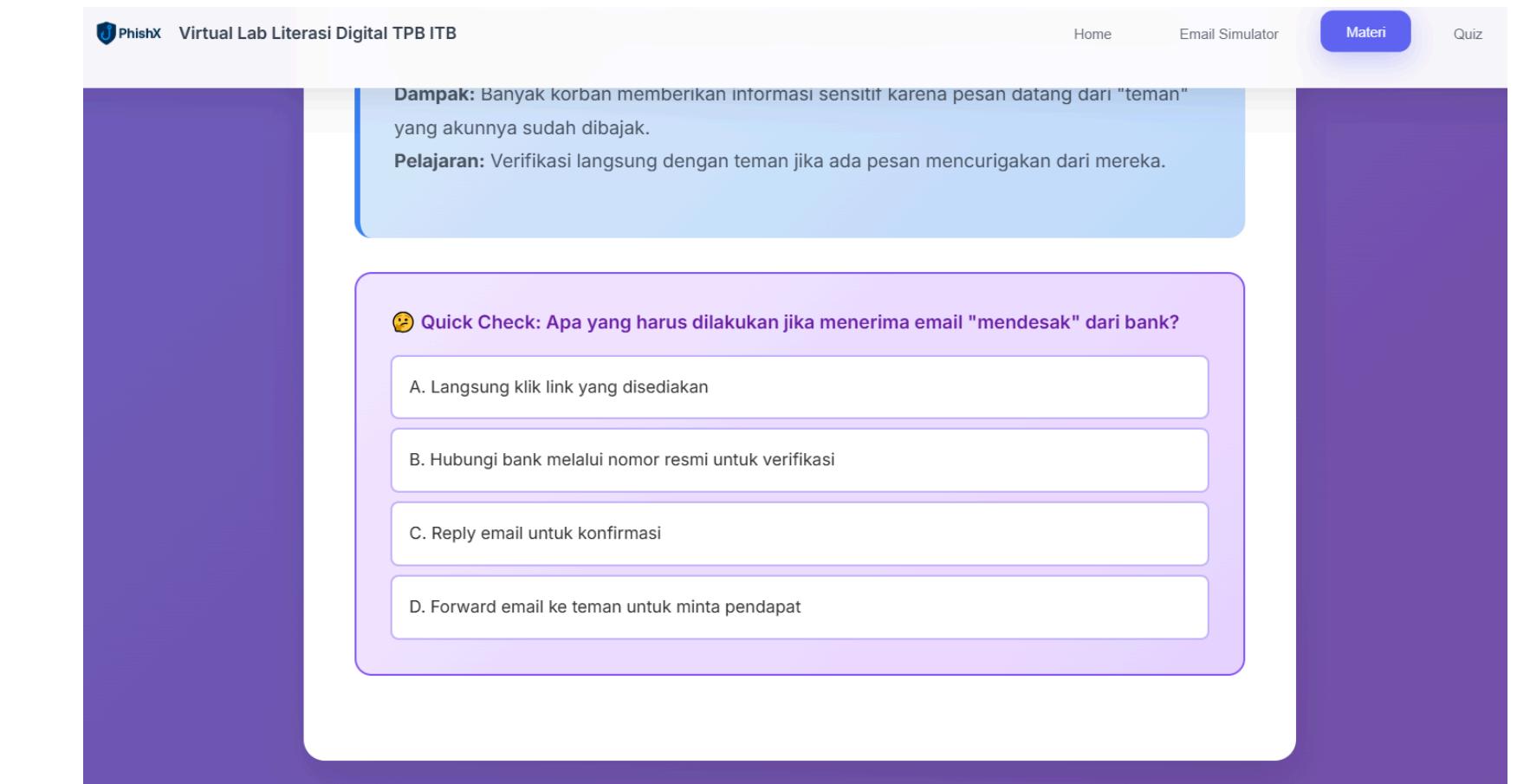
PhishX Virtual Lab Literasi Digital TPB ITB

Home Email Simulator Materi Quiz

**Daftar Isi**

- [Apa itu Phishing?](#)
- [Red Flags yang Harus Dikenali](#)
- [Cara Melindungi Diri](#)
- [Studi Kasus Nyata](#)

# Mini Quiz



PhishX Virtual Lab Literasi Digital TPB ITB

Home Email Simulator Materi Quiz

**Dampak:** Banyak korban memberikan informasi sensitif karena pesan datang dari "teman" yang akunnya sudah dibajak.

**Pelajaran:** Verifikasi langsung dengan teman jika ada pesan mencurigakan dari mereka.

**Quick Check:** Apa yang harus dilakukan jika menerima email "mendesak" dari bank?

- A. Langsung klik link yang disediakan
- B. Hubungi bank melalui nomor resmi untuk verifikasi
- C. Reply email untuk konfirmasi
- D. Forward email ke teman untuk minta pendapat

# Daftar Isi Interaktif

PhishX Virtual Lab Literasi Digital TPB ITB

Home Email Simulator Materi Quiz

**Email Content**

**From:** security@paypal-verification.com  
**Subject:** URGENT: Verify your PayPal account immediately

Your PayPal account has been temporarily suspended due to suspicious activity. Click the link below to verify your account within 24 hours or it will be permanently closed.

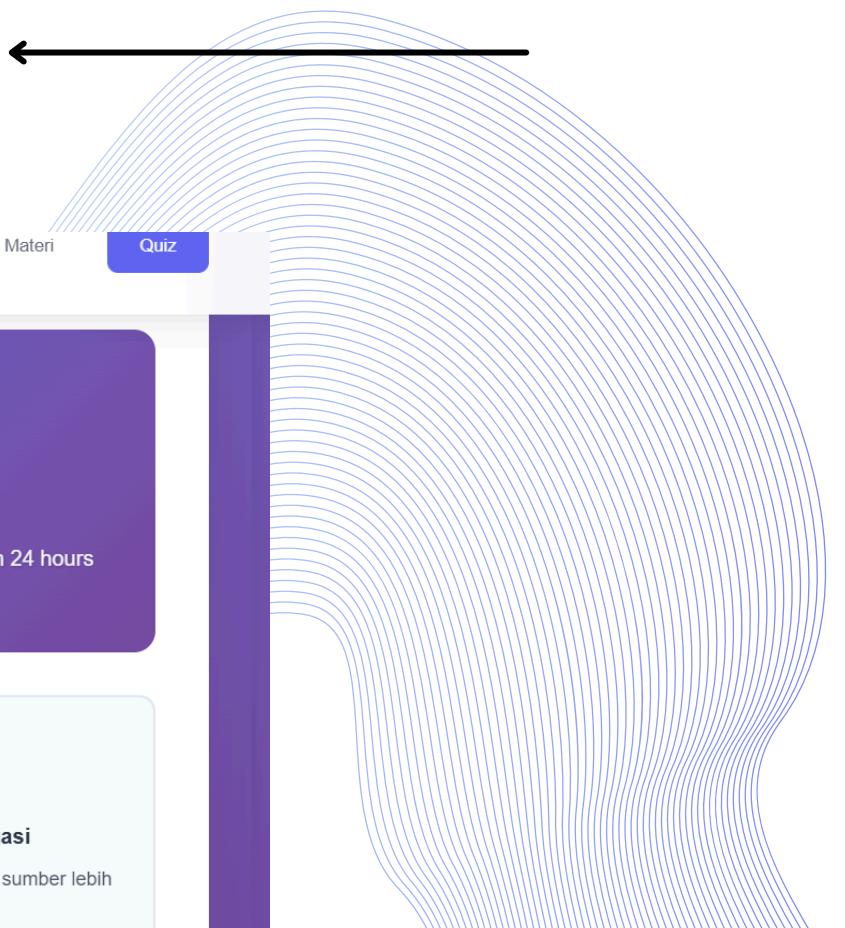
**Legitimate**  
Email ini aman dan asli

**Phishing**  
Email ini mencurigakan dan berbahaya

**Tidak Yakin**  
Perlu analisis lebih lanjut

**Butuh Investigasi**  
Perlu memeriksa sumber lebih detail

Previous Next



PhishX Virtual Lab Literasi Digital TPB ITB

Home Email Simulator Materi Quiz

# Quiz Drag & Drop

3

**Drag & Drop**

Cocokkan red flags berikut dengan contoh yang sesuai:

**Drag Items**

- Bahasa Mendesak
- Domain Mencurigakan
- Kesalahan Tata Bahasa
- Attachment Mencurigakan

**Drop Zones**

**Indikator Bahasa**  
Penggunaan kata-kata seperti "URGENT", "SEGERA", atau kesalahan ejaan

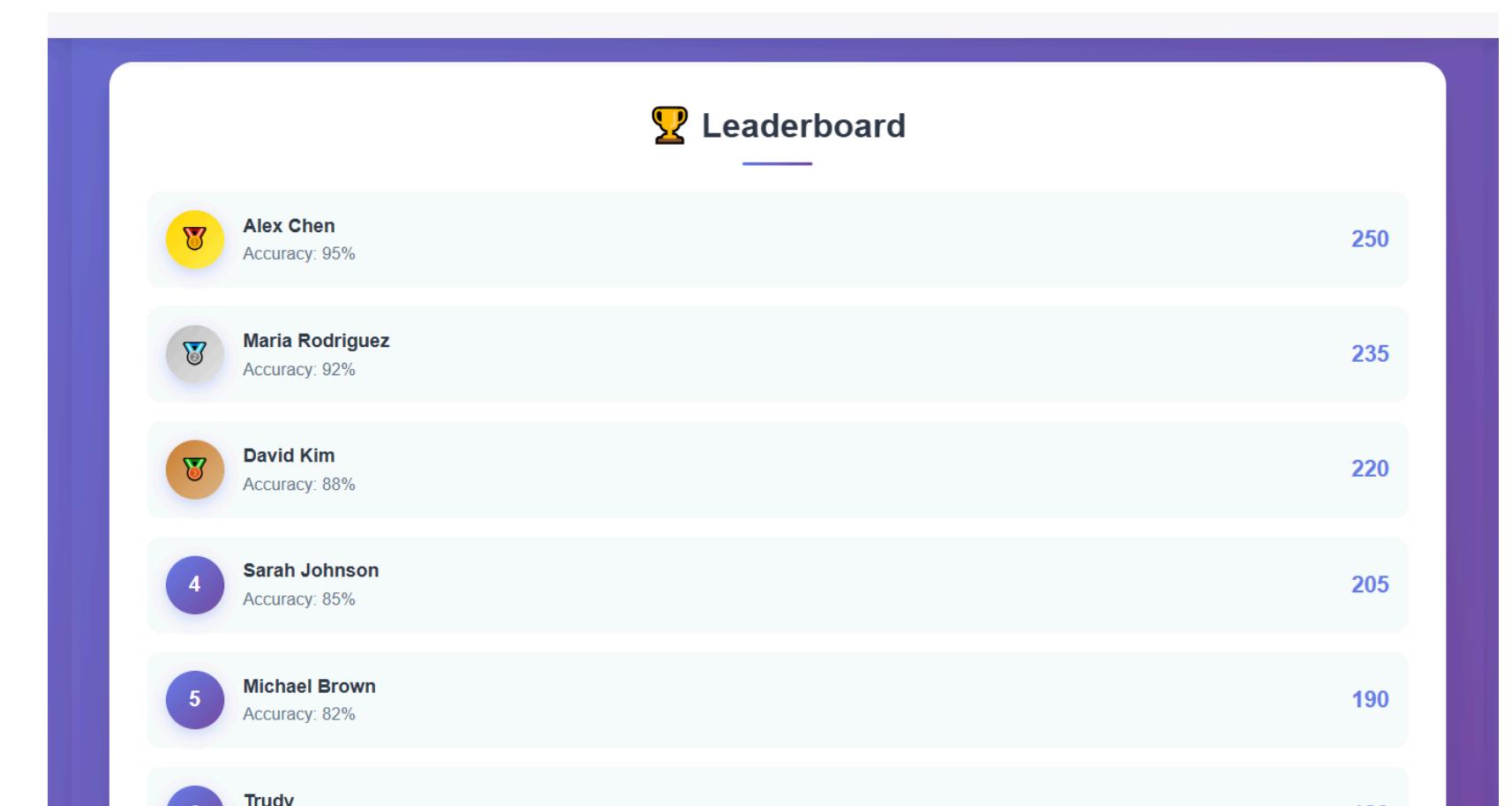
**Indikator Teknis**  
Domain palsu, link mencurigakan, atau file berbahaya



A screenshot of the PhishX mobile application showing quiz results. At the top, there are four status boxes: 'CURRENT QUESTION' (8), 'TOTAL QUESTIONS' (8), 'CURRENT SCORE' (90), and 'ACCURACY' (64%). Below this, a large central box displays the message '🎉 Quiz Completed!' with a 'Good Job!' button underneath. To the left of the message is a 'FINAL SCORE' of 120, to the right is an 'ACCURACY' of 80%, and below that is a 'TIME TAKEN' of 78s. At the bottom are three buttons: 'Retake Quiz', 'View Leaderboard', and 'Share Results'.

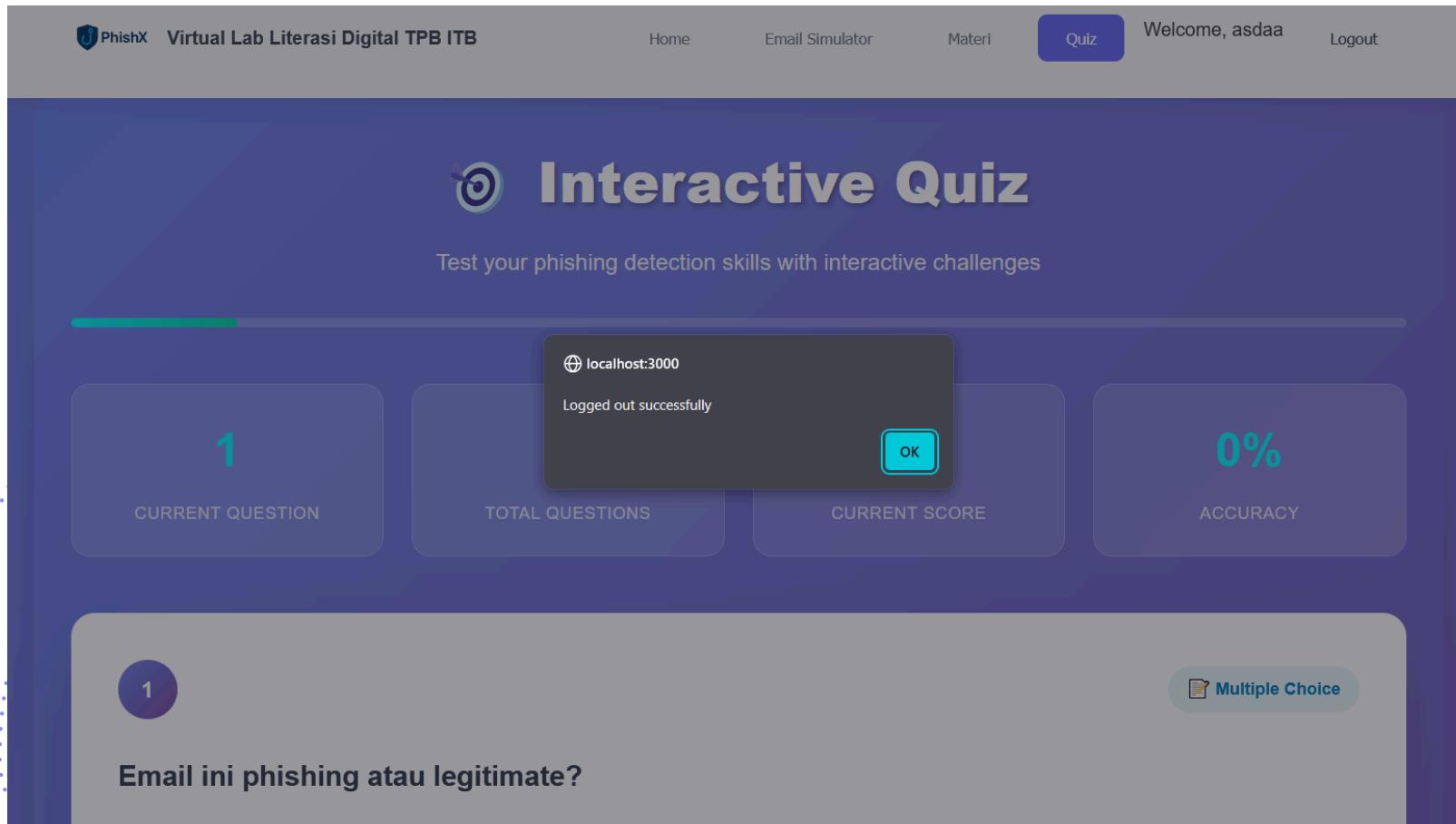
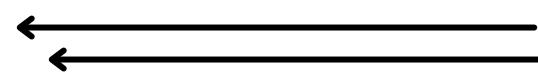
# Visualisasi Leaderboard

# Point System



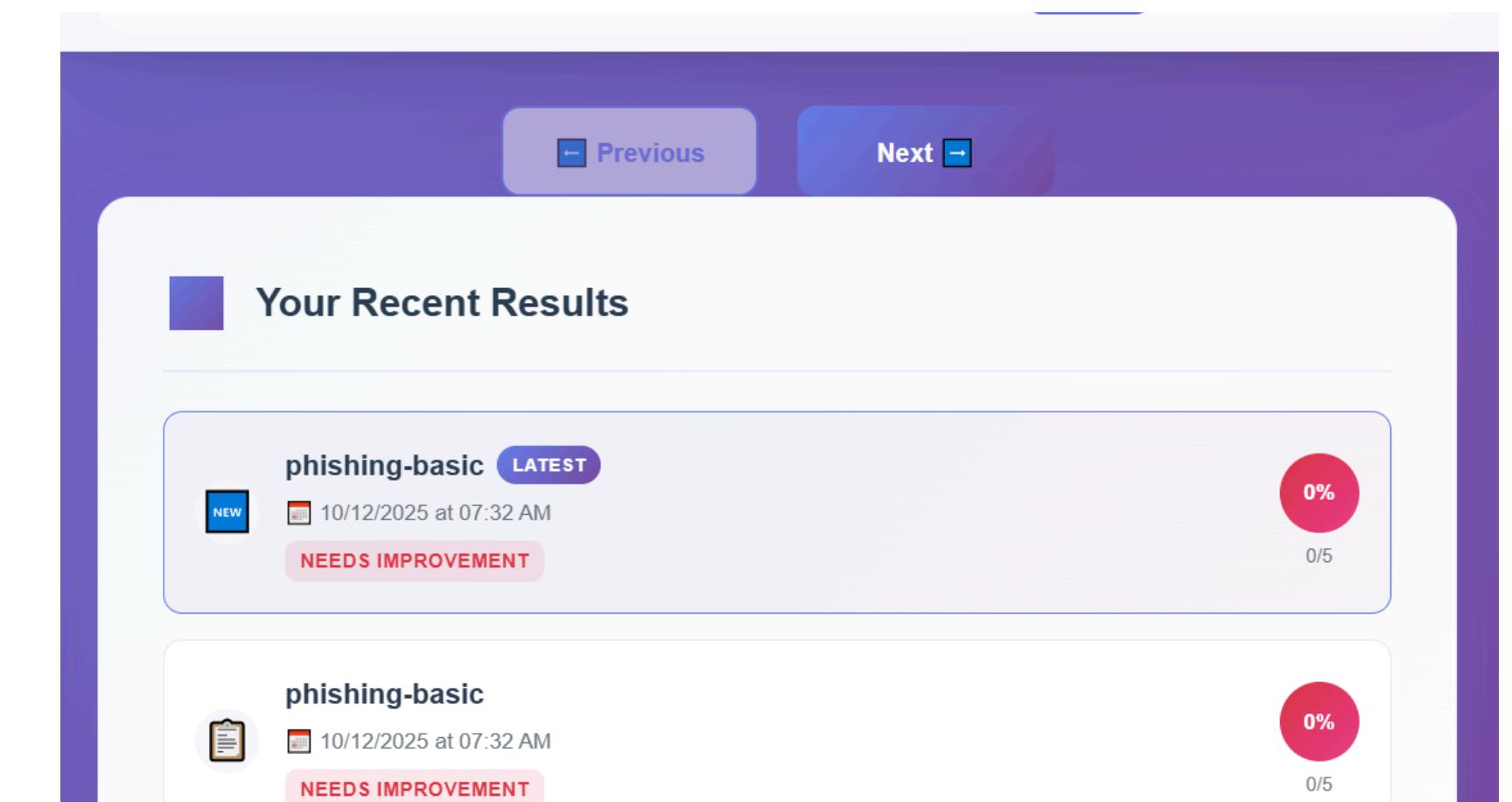
A screenshot of the PhishX mobile application showing a leaderboards screen. The title is '🏆 Leaderboard'. The list displays six users with their scores, accuracy, and profile icons:

| Rank | User            | Score | Accuracy |
|------|-----------------|-------|----------|
| 1    | Alex Chen       | 250   | 95%      |
| 2    | Maria Rodriguez | 235   | 92%      |
| 3    | David Kim       | 220   | 88%      |
| 4    | Sarah Johnson   | 205   | 85%      |
| 5    | Michael Brown   | 190   | 82%      |
| 6    | Trudy           | 180   | 80%      |



The screenshot shows the PhishX Interactive Quiz interface. At the top, there's a navigation bar with links for Home, Email Simulator, Materi, Quiz (which is highlighted in blue), Welcome, asdaa, and Logout. The main title "Interactive Quiz" is displayed with a gear icon. Below it, a subtitle says "Test your phishing detection skills with interactive challenges". On the left, there are three cards: "CURRENT QUESTION" (1), "TOTAL QUESTIONS" (1), and "CURRENT SCORE" (0%). In the center, a message box shows "localhost:3000" and "Logged out successfully" with an "OK" button. A large question card displays the number 1 and the question "Email ini phishing atau legitimate?". Below the question is a "Multiple Choice" button. The overall background is dark blue.

# Recent Progress



The screenshot shows the PhishX Recent Results interface. It features a header with "Your Recent Results" and navigation buttons for "Previous" and "Next". Below this, there are two results cards. The first card is for a quiz titled "phishing-basic" (LATEST) from 10/12/2025 at 07:32 AM. It has a "NEW" badge, a clipboard icon, and a red circle with "0%" and "0/5". The second card is for another "phishing-basic" quiz from the same date and time, also with a "NEW" badge, clipboard icon, red circle, and "0%" accuracy. Both cards have a "NEEDS IMPROVEMENT" status indicator.

# Logout

**Tables**

main

- neondb
- Database studio
- public

Search...

quiz\_results

users

**+ Add record**

4 rows • 286ms  50

|                          | <code>id</code> serial | <code>user_id</code> integer | <code>quiz_type</code> varchar(50) | <code>score</code> integer |
|--------------------------|------------------------|------------------------------|------------------------------------|----------------------------|
| <input type="checkbox"/> | 1                      | 3                            | phishing-basic                     | 0                          |
| <input type="checkbox"/> | 2                      | 3                            | phishing-basic                     | 0                          |
| <input type="checkbox"/> | 3                      | 3                            | phishing-basic                     | 1                          |
| <input type="checkbox"/> | 4                      | 3                            | phishing-basic                     | 1                          |

# Progress User Tersimpan

**Tables**

main

- neondb
- Database studio
- public

Search...

quiz\_results

users

**+ Add record**

3 rows • 2s  50  0

|                          | <code>id</code> serial | <code>email</code> varchar(255) | <code>password_hash</code> varchar(255) | <code>full_name</code> varchar(255) | <code>created_at</code> timestamp |
|--------------------------|------------------------|---------------------------------|---|-------------------------------------|-----------------------------------|
| <input type="checkbox"/> | 1                      | test@test.com                   | \$2a\$10\$uLN2k8gzIXzKC9F...            | Test User                           | 2025-10-12 06:48:                 |
| <input type="checkbox"/> | 2                      | kha@gmail.com                   | \$2a\$10\$4DUupdKXRwQtAWP...            | asdaa                               | 2025-10-12 06:50:                 |
| <input type="checkbox"/> | 3                      | asdsa@gmail.com                 | \$2a\$10\$97vh/4l7d8s4mCi...            | asdaa                               | 2025-10-12 07:31:                 |

# Data User Tersimpan

