

ANTI-SCAM SURVIVAL GUIDE

Written with the assistance of Artificial Intelligence 2025

Chapter 1 — Basic Security Mindset (How Scammers Think)

1.1 Why mindset matters

Most scams succeed not because technology is weak, but because **humans are predictable**. Attackers exploit psychology: fear, urgency, greed, trust, loneliness. Understanding **how scammers think** helps you recognize manipulation before it happens.

1.2 Core principles of the attacker

- **Opportunistic:** they don't need to know *you*, just that you have an email, a phone, a bank account.
- **Scalable:** one phishing campaign can reach millions they only need a tiny % of victims.
- **Adaptive:** if a trick stops working (e.g., "Nigerian prince"), they rebrand ("parcel delivery," "bank security alert").
- Low cost, high reward: sending 1 million scam emails costs less than €50.
- **Emotion first, logic later:** they trigger panic or excitement so you act without thinking.

1.3 Common psychological triggers

- Urgency: "Your account will be deleted in 24h!"
- Fear: "Police warrant issued for your arrest unless you pay."
- Greed: "You won €1 million, claim now."
- Authority: "This is your bank/government/IT support."
- Secrecy: "Don't tell anyone, this is confidential."
- Sympathy: "I'm stranded abroad, please help me."

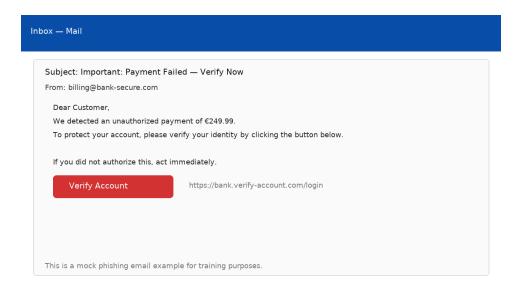
1.4 The "attack chain" explained

- 1. **Initial contact** Email, SMS, phone call, social media message.
- 2. **Hook** Emotional trigger (fear, greed, urgency).

- 3. Action request Click link, open attachment, provide password, transfer money.
- 4. Extraction Credentials stolen, malware installed, payment made.
- 5. **Exploitation** Accounts hijacked, identity used for fraud, money laundered.

Analogy: Think of a phishing attempt like fishing:

- The bait = emotional message.
- The hook = malicious link.
- The catch = your password or money.



1.5 Key terminology

- **Phishing:** fraudulent messages designed to steal credentials.
- Vishing: voice phishing by phone calls.
- Smishing: SMS phishing.
- Social engineering: manipulating people into breaking normal security.
- **Credential stuffing:** using stolen username/passwords from one breach to try logging into other sites.
- MFA bypass: tricking you into giving 2FA codes or using fake login portals.

1.6 Real-world scam mindset

Example 1 — Phishing email:

"Dear customer, your PayPal account is locked. Log in here to restore access: paypal.com." Attackers rely on you not noticing the "I" instead of "l" in the domain.

Example 2 — Phone scam:

"This is your bank. Fraud detected. Please confirm your card number and the SMS code we'll send you."

They exploit urgency and authority — banks never ask for codes by phone.

1.7 Defensive mindset

- **Slow down:** scammers want you to act fast pausing ruins their plan.
- **Verify independently:** don't trust contact info in the message, use official websites or numbers.
- Assume attempts are normal: you will receive scams, but awareness is armor.
- Layer protection: even if you slip once, MFA, unique passwords, and backups reduce damage.

1.8 Chapter summary — Takeaways

- Scammers think like marketers but with malicious intent: they sell fear or greed.
- The attack chain always involves: Contact → Hook → Action → Exploitation.
- Learn key terms (phishing, smishing, vishing, MFA bypass).
 - Adopt defensive habits: slow down, verify, expect scams.

Chapter 2 — Accounts & Credentials

2.1 Why accounts are targeted

Your accounts are gateways:

- **Email** = master key (resets other passwords).
- Banking = direct money.
- Social media = reputation + identity theft.
- Work accounts = company data, potential for bigger fraud.

For attackers, **credentials = currency**. Stolen logins are sold on underground forums ("dark web") for as little as a few dollars each.

2.2 How passwords get stolen

- Phishing fake login page captures your input.
- Keylogging malware records what you type.
- **Data breaches** large companies hacked (LinkedIn, Yahoo, Adobe). Millions of emails + passwords dumped online.
- Credential stuffing using leaked passwords from one site to log into another.
- Brute force & dictionary attacks automated guesses of common passwords.

2.3 What makes a strong password?

Entropy = randomness. The more unpredictable, the harder to crack.

- "P@ssw0rd!" → 10 characters, predictable substitutions → weak.
- "BlueCactus!movie7_galaxy" → 24 characters, mixed categories → strong.

Key rules:

- Unique per account.
- 16+ characters for critical accounts (bank, email).
- Avoid personal data (birthday, pet names, phone number).

• Don't use common patterns ("123456", "qwerty", "Summer2024").

2.4 Password managers

Definition: software that generates, stores, and auto-fills strong unique passwords. Vaults are encrypted and unlocked with a single **master password**.

Benefits:

- No need to remember dozens of logins.
- Prevents reuse.
- Can audit weak/duplicate passwords.

Risks & mitigations:

- If master password is weak → vault compromised. (Solution: use long passphrase + MFA.)
- Cloud-based vaults may be hacked. (Solution: choose reputable manager with zero-knowledge encryption.)

Examples: 1Password, Bitwarden, Dashlane, KeePass (local).

2.5 Multi-Factor Authentication (MFA)

Definition: extra step beyond password. Even if password is stolen, attacker can't log in without second factor.

Types of MFA:

- **SMS codes:** better than nothing, but vulnerable to SIM swap.
- Authenticator apps (TOTP): e.g., Google Authenticator, Authy. Generate time-based codes on device.
- **Push notifications:** e.g., Microsoft/Okta push approve/deny. Beware MFA fatigue (attackers spam until you click approve).
- Hardware tokens (U2F/WebAuthn): e.g., YubiKey, Titan Key. Strongest protection, phishing-resistant.

Best practice order:

Hardware key > Authenticator app > SMS.

2.6 Account recovery hardening

Attackers often bypass login by resetting your password.

- Remove old recovery emails you no longer use.
- Set recovery questions to **nonsense answers** stored in your password manager (e.g., "Mother's maiden name" → "blue_mango!47").
- Check if your email has unauthorized forwarding rules (attackers silently copy all mail).

2.7 Real-world examples

- **Breached reuse:** If your email + password leaked from Adobe in 2013 and you reused it on PayPal, an attacker could log in years later.
- **SIM swap:** Criminal convinces your mobile carrier to port your number → intercepts SMS 2FA → drains your bank.
- **MFA fatigue:** Employee receives 20 login prompts, attacker hopes they click "approve" to stop notifications.

2.8 Defensive checklist

- Use password manager for all accounts.
- Enable MFA everywhere.
- Prefer authenticator app or hardware key, avoid SMS if possible.
- Rotate weak/reused passwords.
- Audit accounts on Have I Been Pwned.
- Regularly test account recovery options.

2.9 Chapter summary — Takeaways

- Passwords alone are **not enough** in 2025.
- Password manager + MFA = baseline security.
- Recovery settings are often overlooked but critical.
- Attackers exploit the weakest link (your old Gmail, your reused Netflix password, your phone number).

Chapter 3 — Email & Messaging (Phishing, SMS, WhatsApp)

3.1 Why this matters

Over 90% of successful cyberattacks start with an email or message. It's the easiest way for attackers to reach millions of people cheaply.

- Email phishing = fake emails that look like they come from trusted companies.
- **Smishing** = phishing via SMS.
- Vishing = voice phishing via phone calls.
- **Messaging app scams** = WhatsApp, Telegram, Messenger with fake investment groups, fake friends, or cloned profiles.

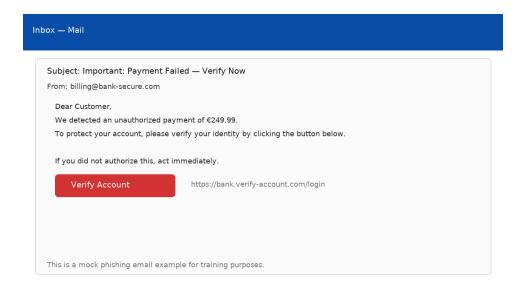
3.2 How phishing emails work

They exploit **trust in brand identity**: logos, formatting, sender names. Steps of a phishing email:

- 1. **Spoofed sender address** e.g., support@paypal-secure.com.
- 2. Urgent subject line "Your account will be closed in 24 hours."
- 3. Body with fear/urgency "Suspicious login detected in Romania."
- 4. **Malicious link** fake login page capturing credentials.
- 5. **Attachment** disguised malware (.zip, .docm with macros).

3.3 Red flags in emails

- **Generic greeting:** "Dear customer" (banks usually use your name).
- Strange domain: paypal.com (with capital i) instead of paypal.com.
- Misspellings/grammar errors.
- Suspicious links: hover shows mismatch (https://secure-paypal.com instead of https://paypal.com).
- Unusual attachments: invoices, resumes, or shipping notices you never requested.



3.4 Realistic phishing email example

Subject: Important: Payment Failed — Verify Now

From: billing@bank-secure.com

Body:

Dear Customer,

We detected an unauthorized payment of €249.99. To protect your account, please verify your identity:

[Verify Account Button]

Why it's malicious:

- Wrong sender domain.
- Urgent language.
- Link points to bank.verify-account.com/login.

3.5 Smishing (SMS scams)

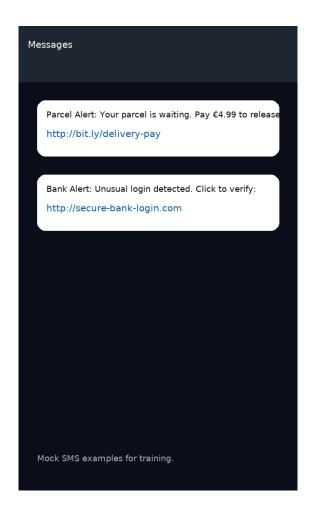
Scammers use **short URLs** (bit.ly, tinyurl) because phones don't show full links. Examples:

• "Your parcel is waiting. Pay €4.99 here: http://bit.ly/delivery-pay."

- "Bank Alert: Unusual login detected. Click http://secure-bank-login.com."
- "Electricity Bill Overdue. Pay now to avoid cutoff."

Defense:

- Don't click links in SMS.
- Contact courier, bank, or utility via their official app/website.
- Block and report suspicious numbers.



3.6 WhatsApp & messaging scams

Fake investment groups

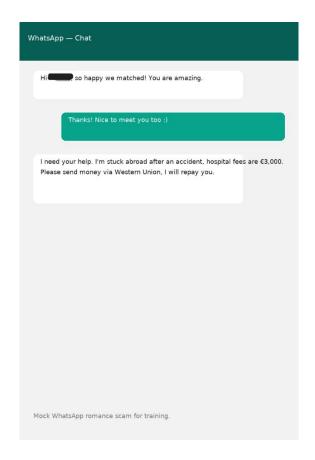
- You're added to a WhatsApp/Telegram group with people showing fake profits.
- Admin claims "guaranteed 10% daily returns."

• Victims send money → scammers disappear.

Impersonation scams

- Attacker clones your friend's profile picture & name.
- Message: "Hey, I changed my number. Can you send me €200 quickly? I'll pay you back."

Defense: Always call the friend directly before sending money.



3.7 Vishing (voice phishing by phone)

Covered more deeply in Chapter 12, but common here:

- "This is your bank's fraud team. Confirm your card number + SMS code."
- "Police warrant pay immediately to avoid arrest."

3.8 Advanced: spear phishing

- Spear phishing = targeted phishing using personal info.
 Example: "Hello Flavius, I saw your jewelry listings. Please open my attached catalog."
 - → They researched your business on purpose.

3.9 Defense strategies

- Don't click links open official app/site yourself.
- **Don't trust caller ID** numbers can be spoofed.
- Check with sender call/email using known contact, not reply button.
- Verify attachments scan with antivirus, never enable macros.
- **Report** forward phishing emails to your provider (e.g., phishing@company.com).

3.10 Key terms explained

- Spoofing: forging sender's email or caller ID to look legitimate.
- **Typosquatting:** domains with small changes (micros0ft.com).
- Macros: small programs embedded in Office files, often abused to install malware.
- **Social proof:** fake testimonials in WhatsApp groups to build trust.

3.11 Chapter summary — Takeaways

- Most scams begin with a message email, SMS, or chat app.
- Learn to spot red flags: urgency, fake domains, suspicious attachments.
- Defend by slowing down, verifying independently, and refusing to act under pressure.
- If in doubt do nothing until verified.

Chapter 4 — Browsing, Downloads & Fake Sites

4.1 Why the browser matters

The web browser is your **daily gate** to banking, shopping, work, and entertainment. For attackers, it's the easiest entry point:

- Fake websites harvest passwords.
- Malicious ads (malvertising) deliver malware.
- Bad extensions spy on you.

4.2 Typosquatting & lookalike domains

Typosquatting = registering domains that look like popular ones, hoping users mistype. Examples:

- gooogle.com instead of google.com
- paypal.com (capital "i" instead of "l")
- faceboook.net

How to defend:

- Always type carefully or use bookmarks for critical sites (bank, email).
- Use a password manager: it auto-fills only on the correct domain.

4.3 HTTPS padlock myth

- **Reality:** the padlock means the connection is encrypted, not that the site is trustworthy.
- Attackers can easily get free SSL certificates (Let's Encrypt) for fake sites.
- Example: https://secure-paypal-login.com may have a padlock but is still fake.

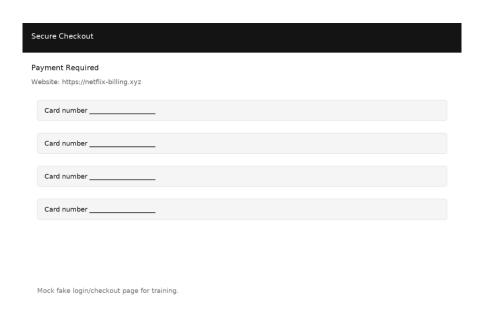
Defense: Check the **domain name**, not just the padlock.

4.4 Fake login pages

Phishing sites mimic legitimate logins pixel by pixel.

Trick: they may ask for **extra details** a real site never requests:

- Both your password and recovery codes
- SMS 2FA code and your backup codes
- Or even ask you to forward codes via email/chat
- ⚠ Red flag: no real service ever asks you to share 2FA codes outside their app.



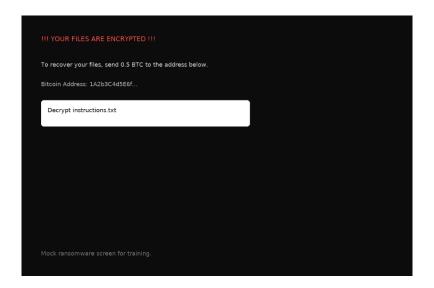
4.5 Browser hygiene

- Remove unnecessary extensions. Some extensions secretly collect data.
- **Keep browser updated.** Patches close zero-day vulnerabilities.
- Use separate profiles:
 - o Profile 1 → Banking (no extensions, no history sync).
 - o Profile 2 → Work.
 - Profile 3 → Casual browsing.

 Private browsing ≠ anonymous. It just doesn't save local history. Your ISP and sites still see you.

4.6 Safe downloads

- Avoid downloading .exe or .scr files from emails or untrusted sources.
- Office files asking to "Enable Macros" are a huge red flag macros often install malware.
- Scan downloads with antivirus.
- Mac/Linux users are not immune unsigned apps can also carry malware.



4.7 Real-world examples

- **Fake Netflix login:** netflix-billing.xyz shows a padlock, looks identical, but steals credentials.
- Malvertising: a fake "Flash Player update" ad delivers ransomware.
- **Compromised extension:** Chrome extension "Downloader Pro" turned malicious after being sold to attackers.

4.8 Key terms explained

- Typosquatting: fake domains mimicking real ones.
- SSL/TLS: encryption of data in transit, but says nothing about trustworthiness.
- Malvertising: malicious ads delivering malware.
- Macro malware: malicious code inside Office documents.

4.9 Chapter summary — Takeaways

- Don't trust the **padlock** blindly check the full domain.
- Bookmark and use password managers for critical sites.
- Treat downloads and macros with caution.
- Segment browsing profiles to minimize exposure.

Chapter 5 — Devices & OS Security

5.1 Why device security matters

Even if you have strong passwords and avoid phishing, a **compromised device = compromised everything.**

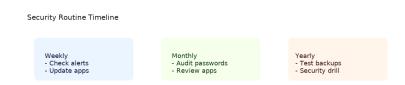
Attackers aim to:

- Steal stored credentials (browsers often save them).
- Install keyloggers to capture everything you type.
- Encrypt your files (ransomware).
- Turn your PC/phone into a bot for future attacks.

5.2 Keep everything updated (patching)

- OS updates (Windows, macOS, Linux, Android, iOS) fix vulnerabilities.
- App updates (browser, office suite, messaging apps) prevent exploitation of old bugs.
- Driver/firmware updates close hardware-level flaws.

▲ Example: WannaCry ransomware (2017) spread worldwide because people ignored a Windows patch released months earlier.



Safe practice: Enable auto-updates where possible, or check manually **weekly**.

5.3 Full-disk encryption (FDE)

Definition: Encrypts your device's storage so data is unreadable without your password.

- Windows → BitLocker
- macOS → FileVault
- iOS/Android → built-in encryption

Benefits:

- If your laptop/phone is stolen, attacker can't access your files.
- Protects sensitive work documents, banking files, saved sessions.

⚠ Without FDE, someone can remove your hard drive and read your data easily.

5.4 Lock screens & physical security

- Use strong device password/PIN (not 1234, not birthdate).
- Set auto-lock after 1-5 minutes idle.
- Avoid biometric-only unlock if someone can force you (finger/face). Combine with PIN.
- Don't leave laptops/phones unattended in public.

5.5 Anti-malware & Endpoint Detection (EDR)

Anti-malware/antivirus scans for known threats.

EDR (Endpoint Detection & Response) → advanced monitoring for suspicious behavior (used in enterprises).

▲ Example: A free "cleaner app" on Android secretly recorded keystrokes.

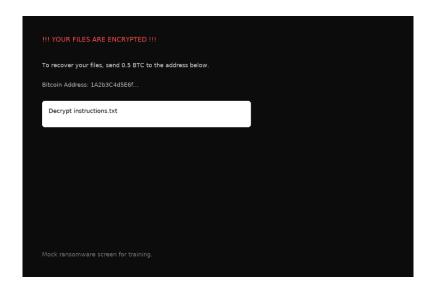
Safe practice: Stick to reputable security solutions (Windows Defender, Malwarebytes, Kaspersky, Bitdefender, etc.).

5.6 Backup strategy — the 3-2-1 rule

- 3 copies of data: working + 2 backups.
- 2 different media: e.g., external hard drive + cloud.
- 1 offsite: in case of fire/theft.

Why: protects against ransomware, accidental deletion, hardware failure.

 \blacktriangle Example: Small businesses often pay ransom because backups were stored on the same PC \rightarrow ransomware encrypted those too.



Safe practice: Keep at least one offline or cloud backup disconnected from daily use.

5.7 App permissions & audits

On phones especially:

- Many apps request more than they need (flashlight app asking for contacts?).
- Review permissions every 3-6 months.
- Revoke microphone, SMS, camera if unnecessary.

▲ Example: Some malicious Android apps used **accessibility permissions** to read bank app screens.

5.8 Key terms explained

- Patch: a software update fixing bugs or vulnerabilities.
- Zero-day: a vulnerability not yet patched but exploited in the wild.
- FDE (Full-disk encryption): encryption that covers entire storage, not just files.
- Ransomware: malware that encrypts your files until you pay.
- **EDR:** advanced security monitoring on endpoints (PCs/phones).

5.9 Chapter summary — Takeaways

- Update everything: OS, apps, firmware.
- Encrypt your devices to protect data at rest.
- Back up with 3-2-1 rule and test restores.
- Review app permissions regularly.
- Lock devices physically and digitally.

Chapter 6 — Payment & Money Safety

6.1 Why payment safety matters

When money leaves your account, it's often **gone forever** if you fall victim to a scam. Attackers know financial panic pushes people to act fast. They use:

- Fake invoices
- Investment opportunities
- Marketplace tricks
- Crypto schemes

Understanding safe payment practices drastically reduces risk.

6.2 Banks & transfers

- Wire transfers: fastest, hardest to reverse → scammers' favorite.
- Red flag: urgent transfer request via email/phone.
- Defense: verify via independent phone number before sending.

♠ Example: Business email compromise (BEC) → CFO receives spoofed email "Send €25,000 to new supplier account." Company pays → money laundered overseas.

Safe practice: Always call vendor with the phone number already on file before changing payment details.

6.3 Credit cards vs debit cards

- Credit cards: stronger fraud protection, easier chargebacks.
- **Debit cards**: money comes directly from your account, harder to recover.
- Virtual cards: disposable card numbers for one-time purchases (many banks offer this).

♠ Example: Scammer steals debit card → empties your checking account. Refund takes weeks (if at all).

Safe practice: Use credit card for online purchases, enable alerts for every transaction.

6.4 Marketplace scams

Common tricks on classifieds (eBay, OLX, Facebook Marketplace):

- **Overpayment scam:** buyer "accidentally" sends too much, asks you to refund the difference. Their payment bounces, you lose money.
- **Shipping scam:** buyer insists on using their own "courier" → fake shipping site, you ship item, never get paid.
- Too good to be true: Rolex watch for €200.

▲ Example: Fake ad for iPhone 14 Pro at half price, "payment upfront to reserve." Seller disappears.

Safe practice:

- Use **escrow** or built-in marketplace payment methods.
- Meet in person for high-value items (public place, cash/bank transfer on the spot).

6.5 Investment & Ponzi schemes

Scammers exploit FOMO (fear of missing out):

- "Guaranteed 15% monthly returns."
- Fake trading platforms with charts showing profits.
- Victims can "withdraw small amounts" early to build trust, then lose big when platform vanishes.

▲ Example: "Crypto doubling scheme" → send 0.1 BTC, promised 0.2 BTC return. Money stolen instantly.

Safe practice: If it sounds too good to be true, it is. Legitimate investments never guarantee profits.

6.6 Cryptocurrency-specific risks

• Irreversible transfers: no chargebacks like banks.

- Fake token contracts: scammers create lookalike tokens.
- Phishing sites: fake "MetaMask connect" popups drain wallets.
- **Exchange hacks**: if you keep funds on exchange, you risk losing them.

Safe practice:

- Use **hardware wallets** (Ledger, Trezor).
- Double-check wallet addresses (use QR, whitelist).
- Never connect wallet to unknown dApps.
- Store recovery seed offline only.

6.7 Refunds & chargebacks

- If scammed via credit card → file chargeback quickly.
- If via wire transfer → contact your bank immediately to request recall.
- If via **crypto** → recovery is nearly impossible (unless scammer is caught).

6.8 Key terms explained

- Escrow: third-party holds payment until buyer confirms goods received.
- Chargeback: reversal of credit card payment due to fraud/dispute.
- **Ponzi scheme:** scam where early investors are paid with later investors' money.
- Rug pull: crypto scam where developers vanish with investors' funds.

6.9 Chapter summary — Takeaways

- **Prefer credit cards** for online shopping, not debit or wire transfers.
- **Use escrow** in marketplaces, never pay outside the platform.
- No guaranteed returns avoid Ponzi/investment scams.
- Crypto = cash: treat it as irreversible, protect with hardware wallets.
- Act fast if scammed: contact bank immediately.

Chapter 7 — Social Engineering, Romance & Marketplace Scams

7.1 Why social engineering works

Social engineering = hacking people, not machines.

Instead of breaking encryption, scammers exploit:

- Trust ("I'm your colleague from IT")
- Authority ("This is your bank/police")
- **Emotion** (love, fear, sympathy)
- Greed ("Easy money, fast returns")

▲ Even well-trained people can fall for it if the scammer presses the right psychological button.

7.2 Common patterns in social engineering

- 1. **Building trust** attacker engages in casual talk, slowly builds credibility.
- 2. **Testing small favors** "Can you do me a quick favor?"
- 3. **Escalation** once trust is built, comes the real request: money, login, or access.

7.3 Romance scams

How it works:

- Scammer builds emotional bond on dating apps, Facebook, Instagram.
- Pretends to be a soldier, doctor, engineer abroad.
- After weeks/months of bonding, asks for money for "emergency" (hospital bills, travel, customs fees).

Red flags:

- Too much affection too soon ("love bombing").
- Refuses to video call or meet in person.
- Always has an excuse why they can't travel.

▲ Example: A widow in the US lost over \$300,000 to a fake "US Army Captain" stationed overseas.

Safe practice:

- Never send money to someone you haven't met in person.
- Verify photos (reverse image search).
- Involve a trusted friend/family before sending money.

7.4 Business Email Compromise (CEO fraud)

How it works:

- Attacker spoofs CEO's email.
- Sends urgent request: "Wire €50,000 to new vendor immediately."
- Employee obeys due to authority + urgency.

Red flags:

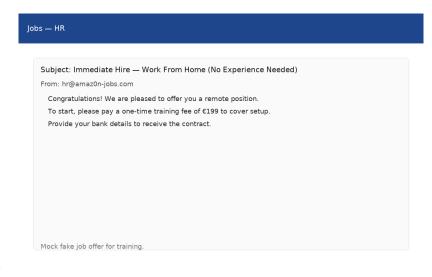
- Unusual payment instructions.
- CEO asking directly to bypass procedures.
- "Keep this confidential."
- **A** Example: In 2020, Toyota subsidiary lost **\$37 million** due to BEC fraud.
- Safe practice:
 - Always use dual approval for large payments.
 - Verify new vendor instructions via phone (using known number, not email).
 - Train staff to question unusual urgent requests.

7.5 Job & recruitment scams

How it works:

- Fake job offer with high salary, minimal requirements.
- "We'll hire you immediately, just pay €200 for training/equipment."

 Or fake check fraud: they send you a check, ask you to deposit it and forward part of it → check bounces, you owe bank.



Red flags:

- · Job offers without interviews.
- Requests for upfront payments.
- Emails from free domains (gmail, yahoo) instead of corporate addresses.

▲ Example: Thousands scammed by "Amazon work-from-home jobs" that required buying starter kits.

- Safe practice:
 - Verify employer's website & HR contact.
 - Never pay to get hired.
 - Use official career portals.

7.6 Marketplace manipulation (advanced scams)

- Sympathy scam: "Single mom selling laptop cheap, please help."
- **Escrow fraud:** fake escrow websites created by scammers.
- Rental scams: scammers copy real apartment listings, ask deposit upfront.

- ▲ Example: College students often lose security deposits to fake rental ads.
- Safe practice:
 - Visit property in person before paying.
 - Use official marketplace escrow, not links sent by seller.

7.7 Key terms explained

- Social engineering: psychological manipulation into giving access or money.
- Romance scam: fraud exploiting love and loneliness.
- CEO fraud / BEC: spoofed business emails ordering wire transfers.
- Advance fee scam: asking small payments upfront for a larger promised reward (lottery, job, inheritance).

7.8 Chapter summary — Takeaways

- Social engineering targets emotions, not firewalls.
- Romance scams: emotional manipulation → financial loss.
- CEO fraud: urgency + authority = big money losses.
- Job scams: if you must pay to get hired, it's fake.
- Always **verify independently** before sending money or sensitive info.

Chapter 8 — Phone Scam Categories & Examples

8.1 Why phone scams are dangerous

Unlike email, phone calls feel more personal and urgent. Attackers exploit:

- Trust in voice ("it sounds official").
- Caller ID spoofing (faking the bank/police number).
- **Pressure** (keep you on the line until you act).

⚠ Victims often hand over sensitive info or money because they feel "they're talking to a real person."

8.2 Common categories of phone scams

1. Tech support scams

How it works: Caller pretends to be from Microsoft, Apple, or your ISP.

- "Your computer has a dangerous virus. If you don't fix it now, you'll lose all your files."
- Asks you to install **remote access software** (TeamViewer, AnyDesk).
- Gains control of your device, installs malware, or demands payment.

Defense:

- Big tech companies never call you first.
- Never install remote software at a stranger's request.
- Hang up immediately.



2. Bank or credit card fraud impersonation

How it works: Caller claims to be your bank's fraud department.

- "We detected a €2,500 transaction. To cancel, please confirm your card number and the SMS code."
- Once you give the code, they drain your account.

Defense:

- Banks never ask for **codes or full card numbers** by phone.
- Hang up, call the number printed on your card.
- Never read verification codes aloud.

3. Government / tax scams

How it works: Caller pretends to be IRS/ANAF/Tax authority.

• "You owe unpaid taxes. Police will arrest you today unless you pay."

Demands payment via gift cards, wire, or crypto.

Defense:

- Authorities **send letters**, they don't threaten arrest by phone.
- No government accepts iTunes/Amazon gift cards as tax payment.
- Hang up and call the official tax agency.

4. Lottery / prize scams

How it works: Caller congratulates you:

- "You've won a car! Just pay €499 processing fee to claim your prize."
- After payment, the scammer disappears.

Defense:

- If you didn't enter, you didn't win.
- Legitimate contests never require upfront payment.

5. Grandparent / family emergency scam

How it works: Emotional manipulation:

- "Grandma, it's me. I had a car accident, need €1,000 for bail. Don't tell mom."
- Scammer may know real names from Facebook.

Defense:

- Always verify by calling the family member directly.
- Ask a personal question only the real relative would know.

6. SIM swap scam

How it works: Attacker convinces your mobile carrier to "transfer" your number to their SIM.

Now they receive all your calls and SMS (including 2FA codes).

• Can reset your bank, email, crypto accounts.

Defense:

- Ask carrier to add a PIN/password to your account.
- Use authenticator apps/hardware keys, not SMS codes.
- If your phone suddenly loses service, contact your carrier immediately.

7. Investment / crypto phone scams

How it works: Aggressive cold calls promising huge returns.

- "Our clients earn 15% monthly guaranteed with crypto."
- Directs you to a fake investment platform with charts showing fake profits.
- You invest more and more, then site vanishes.

Defense:

- No legitimate investment guarantees returns.
- Verify company registration with financial regulator.
- Never invest based on a cold call.

8.3 Common tactics across all phone scams

- Urgency & fear: "Act now or lose everything."
- Authority: "This is the bank / police / tax office."
- Confidentiality: "Don't tell anyone, this is secret."
- Isolation: keep you on the line, prevent you from verifying.
- Payment pressure: always ask for unusual methods (gift cards, wire, crypto).

8.4 Defense strategies

- 1. **Don't engage** hang up. Scammers are trained manipulators.
- 2. **Verify independently** call your bank/police/family directly.

- 3. **Block & report** to your carrier or national fraud hotline.
- 4. If info leaked
 - Card → block immediately.
 - Code/password → change instantly.
 - o Remote access granted → disconnect internet, scan/reinstall PC.

8.5 Ready-to-use defense scripts

Bank scam call defense:

"I don't share details over the phone. I'll call my bank directly. Goodbye."

• Tech support scam defense:

"My IT department handles this. Don't call again." [hang up]

• Family emergency scam defense:

"I'll call [relative's name] directly to confirm." [hang up]

8.6 Chapter summary — Takeaways

- Phone scams exploit urgency + authority + fear.
- Caller ID can be faked don't trust it.
- Never give out codes, passwords, or install software on request.
- · Verify independently via official channels.
- The safest move: hang up.

Chapter 9 — Public Wi-Fi, Routers & Home Network Hardening

9.1 Why network security matters

Your **network is the highway** all your data travels on.

If attackers control or spy on it, they can:

- Intercept logins and private messages.
- Inject fake sites (man-in-the-middle).
- Hijack devices (IoT, smart cameras, routers).

▲ A weak home network or unsafe Wi-Fi connection can undermine all your other security measures.

9.2 Risks of public Wi-Fi

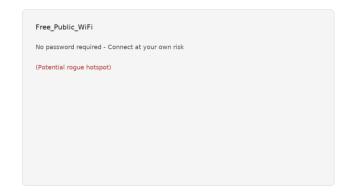
Public hotspots (cafés, airports, hotels) are convenient but risky:

- Rogue hotspots: attacker sets up "Free_Airport_WiFi" with no password.
- Sniffing traffic: unsecured connections expose logins, chats.
- Session hijacking: attacker steals cookies to impersonate you.

▲ Example: A hacker in a café can capture unencrypted logins from anyone using the same hotspot.

Safe practices:

- Avoid banking or sensitive logins on public Wi-Fi.
- Use a **VPN** (Virtual Private Network) to encrypt traffic.
- Disable auto-join for open Wi-Fi networks.
- Turn off Wi-Fi/Bluetooth when not in use.



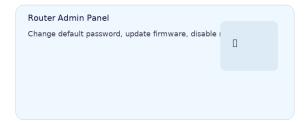
9.3 Home router hardening

Your router is the **front door** to your home network. Default settings are often weak.

Steps to secure:

- 1. Change default admin password. Attackers know "admin/admin" defaults.
- 2. **Update firmware regularly.** Manufacturers patch router vulnerabilities.
- 3. **Disable remote administration.** Prevents outside logins.
- 4. **Strong Wi-Fi encryption.** Use **WPA3** (best) or WPA2 with a long passphrase. Avoid WEP (obsolete).
- 5. Unique SSID (network name). Avoid default "TP-Link1234" → easier to target.

▲ Example: The Mirai botnet (2016) hijacked millions of routers/cameras using default passwords.



9.4 Guest networks & segmentation

- **Guest network:** separate Wi-Fi for visitors and IoT devices (smart TVs, cameras, Alexa).
- Segmentation: if IoT is compromised, it can't access your laptop or bank accounts.

Safe practice:

- Main network → personal devices (PC, phones).
- Guest/IoT network → smart bulbs, TVs, cameras.

9.5 DNS filtering & security

- DNS = phonebook of the internet. Attackers sometimes redirect DNS to fake sites.
- Use secure DNS providers (Cloudflare 1.1.1.1, Quad9 9.9.9.9, Google 8.8.8.8).
- Advanced: run your own DNS filter (e.g., Pi-hole) to block ads, malware, trackers.

▲ Example: DNS hijack redirects facebook.com to a fake login page.

9.6 Key terms explained

- Rogue hotspot: fake Wi-Fi network set up by attacker.
- Man-in-the-middle (MITM): attacker intercepts traffic between you and the website.
- **Firmware:** software inside hardware devices like routers.
- SSID: Wi-Fi network name.
- DNS hijacking: attacker changes your DNS settings to redirect traffic.

9.7 Chapter summary — Takeaways

- Public Wi-Fi is **insecure by design** → avoid sensitive logins without VPN.
- Harden your home router: change defaults, update firmware, disable remote admin.

- Use WPA3/WPA2 with strong passwords.
- Segment IoT devices into a guest network.
- Use trusted DNS or filtering to block malicious domains.

Chapter 10 — Privacy, Data Minimization & Digital Footprint Cleaning

10.1 Why privacy matters

Even if you never fall for a scam email, your **digital footprint** (all traces of your online activity) can be used against you.

Scammers and attackers:

- Collect personal info from social media (birthdays, relatives, address).
- Use it for identity theft or password reset questions.
- Build a profile to target you with tailored scams (spear phishing).

▲ Example: Sharing your mother's maiden name on Facebook = free answer to a bank's "security question."

10.2 What is digital footprint?

Your **digital footprint** = the trail of data you leave online.

Types:

- Active footprint: what you post intentionally (social media updates, photos, blogs).
- Passive footprint: data collected silently (cookies, trackers, IP logs).

10.3 Risks of oversharing

- Social engineering fuel: attackers use personal details to sound convincing.
- **Identity theft:** with your full name, birthday, and address, scammers can open loans in your name.
- Targeted ads / manipulation: your browsing data is sold to advertisers and potentially misused.

▲ Example: A scammer calls pretending to be your cousin abroad, mentioning your vacation from Facebook → feels real.

10.4 How to minimize exposure

1. Social media hygiene:

- Limit who sees your posts (friends only).
- Don't post real-time vacation details → signals empty house.
- o Remove birthday, address, school details from public view.

2. Data broker cleanup:

- Many sites sell personal data (addresses, phone numbers).
- Use services like DeleteMe, Incogni, or request removal manually.

3. Google yourself:

- Search your name, email, phone number.
- o Remove unwanted results (via site owner or Google removal request).

4. Old accounts:

- o Close accounts you no longer use (forums, old emails).
- Less exposure = fewer breach risks.

10.5 Cleaning trackers

- Use privacy browsers (Firefox, Brave).
- Install tracker-blocking extensions (uBlock Origin, Privacy Badger).
- Periodically clear cookies/cache.
- Use private search engines (DuckDuckGo, Startpage).

10.6 Data breach monitoring

- Use **Have I Been Pwned** to check if your emails/passwords leaked.
- If yes: change password, enable MFA, don't reuse old ones.
- Consider breach monitoring services offered by password managers or credit bureaus.

10.7 Key terms explained

- Digital footprint: total online presence (posts, logs, data trails).
- Data broker: company that collects and sells personal data.
- **Doxxing:** publishing private info online to harm someone.
- **Identity theft:** using someone's personal data to commit fraud.

10.8 Chapter summary — Takeaways

- Attackers thrive on personal info. The less you expose, the safer you are.
- Manage your social media privacy settings.
- Remove data from brokers and old accounts.
- Use tracker-blockers and check breaches regularly.
- Treat your **personal info like money** valuable, limited, to be protected.

☐ Chapter 11 — Incident Response: What to Do if You Were Scammed or Hacked

11.1 Why response matters

Even the most careful person can slip once. The difference between **losing everything** and **limiting the damage** is **how fast and structured you react**.

Think of incident response as a **fire drill**: panic less, act faster, contain the damage.

11.2 Step-by-step playbook

A. If your account was compromised

- 1. Use a **clean device** (not the infected one) to change password.
- 2. Enable MFA immediately.
- 3. Log out all sessions → most platforms have "sign out everywhere."
- 4. Check for forwarding rules or filters in email (attackers may copy all your mail).
- 5. Notify contacts: "My account was hacked, ignore suspicious messages."
- 6. Run malware scan on the compromised device.

B. If you sent money

- 1. Contact your bank/credit card company immediately.
 - Request stop payment or recall.
 - Provide transaction ID.
- 2. If wire transfer → call receiving bank's fraud department.
- 3. If credit card → request chargeback/dispute.
- 4. File a **police report** with all details (messages, screenshots).
- 5. Save **every piece of evidence** (emails, chat logs, receipts).

C. If your device is infected

1. Disconnect from the internet immediately.

- 2. Boot in Safe Mode.
- 3. Run antivirus/anti-malware scan (Malwarebytes, Defender, etc.).
- If critical → reinstall OS from trusted media.
- 5. Restore files only from clean backup.
- 6. Change passwords only after system is clean.

D. If it's a phishing email/SMS (and you didn't click)

- 1. Don't reply, don't click, don't open attachments.
- 2. Report as phishing in your email client.
- 3. Forward to provider's abuse address (e.g., phishing@paypal.com).
- 4. Delete it.

11.3 Copy-paste templates

1. Notify your contacts

Hi, this is [Your Name]. My account was compromised earlier.

If you received strange messages or payment requests from me, please ignore.

I'm resolving the issue now. Thanks for your patience.

2. Dispute a fraudulent transfer with bank

Subject: Urgent — Fraudulent transaction dispute

Dear [Bank Name],

I did not authorize the transfer on [date/time] for [amount].

Please investigate and initiate reversal immediately.

Transaction ID: [ID].

I have filed a police report (ref: [number]) and can provide evidence (emails, screenshots).

Please confirm receipt and next steps.

Regards,

[Your Full Name]

3. Report phishing to provider

Subject: Phishing report — impersonation of [Service]

Hello,

I received a phishing email/SMS on [date] claiming to be from [company].

Sender: [address/number]

Malicious link: [URL]

It attempts to collect credentials/2FA codes.

Please investigate and take down.

Thank you.

11.4 If identity theft suspected

- Contact credit bureau → freeze your credit.
- Check for new loans/accounts under your name.
- File identity theft report with police.
- Keep a log of every step for insurance/legal purposes.

11.5 Incident response mindset

- **Speed is everything.** Every hour counts for recalls/chargebacks.
- **Don't be ashamed.** Even experts fall for scams what matters is acting.
- **Document everything.** Screenshots, dates, names.
- Learn & harden. After recovery, add missing protections (MFA, backups, alerts).

11.6 Chapter summary — Takeaways

- Don't freeze → follow the playbook step by step.
- Notify bank, contacts, and authorities immediately.
- Use templates to save time under stress.
- After incident, audit and strengthen your defenses.

Chapter 12 — Long Term: Detection, Recovery & Lessons Learned

12.1 Why long-term matters

Most people act only after a scam. But real digital resilience comes from **continuous detection & recovery planning.**

Think of it like health: one doctor visit isn't enough — you need regular checkups, prevention, and a lifestyle of protection.

12.2 Continuous monitoring

- Account login alerts → enable notifications for new device logins.
- Bank/credit alerts → SMS/email for every transaction.
- Dark web monitoring → password managers & credit bureaus often notify if your credentials are found in leaks.
- Social media alerts → watch for cloned profiles impersonating you.
- Safe practice: Review all alerts weekly, not just when you get a notification.

12.3 Periodic audits

Every **3–6 months**, perform a digital hygiene audit:

- 1. Check saved passwords → update weak ones.
- 2. Review recovery options → remove old emails/phones.
- 3. Audit app permissions (Google, Facebook, Microsoft).
- Remove unused accounts → old accounts = future breaches.
- 5. Review payment methods stored online.

12.4 Security drills

Just like fire drills, practice **security incident drills** once a year:

- Simulate losing access to your main email → can you recover?
- Pretend your phone is stolen → can you still log in with backups?

Test restoring from backup → do files open correctly?

⚠ Many companies had backups they never tested — until ransomware hit, and the backups were corrupted.

12.5 Building resilience

- Layered security → password manager + MFA + encrypted devices + backups.
- Fail gracefully → assume one layer might fail, others must protect you.
- Minimal trust → always verify independently, even with colleagues/family.

12.6 Learning from incidents

- After a scam attempt, ask:
 - How did they reach me (email, phone, social)?
 - o What detail did they know about me?
 - o What weak spot did I miss?
- Adjust defenses accordingly.
- Share lessons with friends/family → collective awareness = fewer victims.

12.7 Security culture (personal & family)

- Teach children and elderly about common scams (grandparent scam, fake jobs, romance scams).
- Create a family rule: "Never send money or codes without direct phone verification."
- Encourage openness → no shame in admitting you almost clicked a phishing link.

12.8 Key terms explained

- Dark web monitoring: scanning leaked data dumps for your email/passwords.
- Security posture: your overall defense level (passwords, devices, habits).

- **Resilience:** ability to recover quickly from incidents.
- **Defense in depth:** layering multiple protections so one failure doesn't cause disaster.

12.9 Chapter summary — Takeaways

- Security is not one-time, it's ongoing.
- Enable alerts for logins, transactions, and leaks.
- Do regular audits and practice response drills.
- Build resilience with layered defenses and backup strategies.
- Share knowledge collective defense helps everyone.

Chapter 13 — Limitations, Residual Risk & Keeping the Guide Current

13.1 Why absolute security doesn't exist

No matter how many defenses you build, risk can only be reduced, never eliminated.

Attackers innovate constantly. A strategy that works today may fail tomorrow.

Think of cybersecurity like driving: seatbelts, airbags, and traffic rules reduce risk, but can't make accidents impossible.

13.2 Residual risks you must accept

- Zero-days: vulnerabilities unknown to the vendor, exploited before a patch exists.
- **Human error:** tiredness, distraction, or stress may cause mistakes.
- **Insider threats:** scams or leaks from people inside organizations.
- Social pressure: highly convincing scams may bypass even trained individuals.
- **Irrecoverable losses:** once crypto is transferred, or once wire leaves your account, chances of recovery are near zero.

13.3 Trade-offs between security & convenience

- MFA friction: slows down logins but prevents account takeover.
- Password managers: centralize security but require trust in the software.
- Backups: take time and storage, but without them ransomware is devastating.
- Privacy vs usability: less data shared means less personalization and convenience.

⚠ **Reflection:** Many users get scammed not because they lacked tools, but because they disabled them for convenience.

13.4 Keeping defenses up to date

- Annual review: revisit this guide once a year. Technology changes, scams evolve.
- **Subscribe to security news:** e.g., Krebs on Security, Schneier on Security, or CERT alerts in your country.
- Follow trusted institutions: banks, regulators, consumer protection agencies.

• Continuous learning: awareness is your best long-term weapon.

13.5 Meta-Fix — keeping yourself future-proof

- 1. Accept imperfection: even if one layer fails, others should minimize damage.
- 2. Stay adaptive: scams evolve; so must your defenses.
- 3. **Teach others:** by sharing awareness, you create a safer environment for family, colleagues, community.
- 4. **Document incidents:** your own experiences are the best lessons for the future.

13.6 Chapter summary — Takeaways

- No system is 100% safe goal is **risk management, not elimination**.
- Accept residual risks: human error, zero-days, irrecoverable transfers.
- Balance security with convenience, but never disable protections completely.
- Keep defenses updated and adaptive through learning and annual reviews.
- Share lessons collective awareness strengthens everyone's defense.