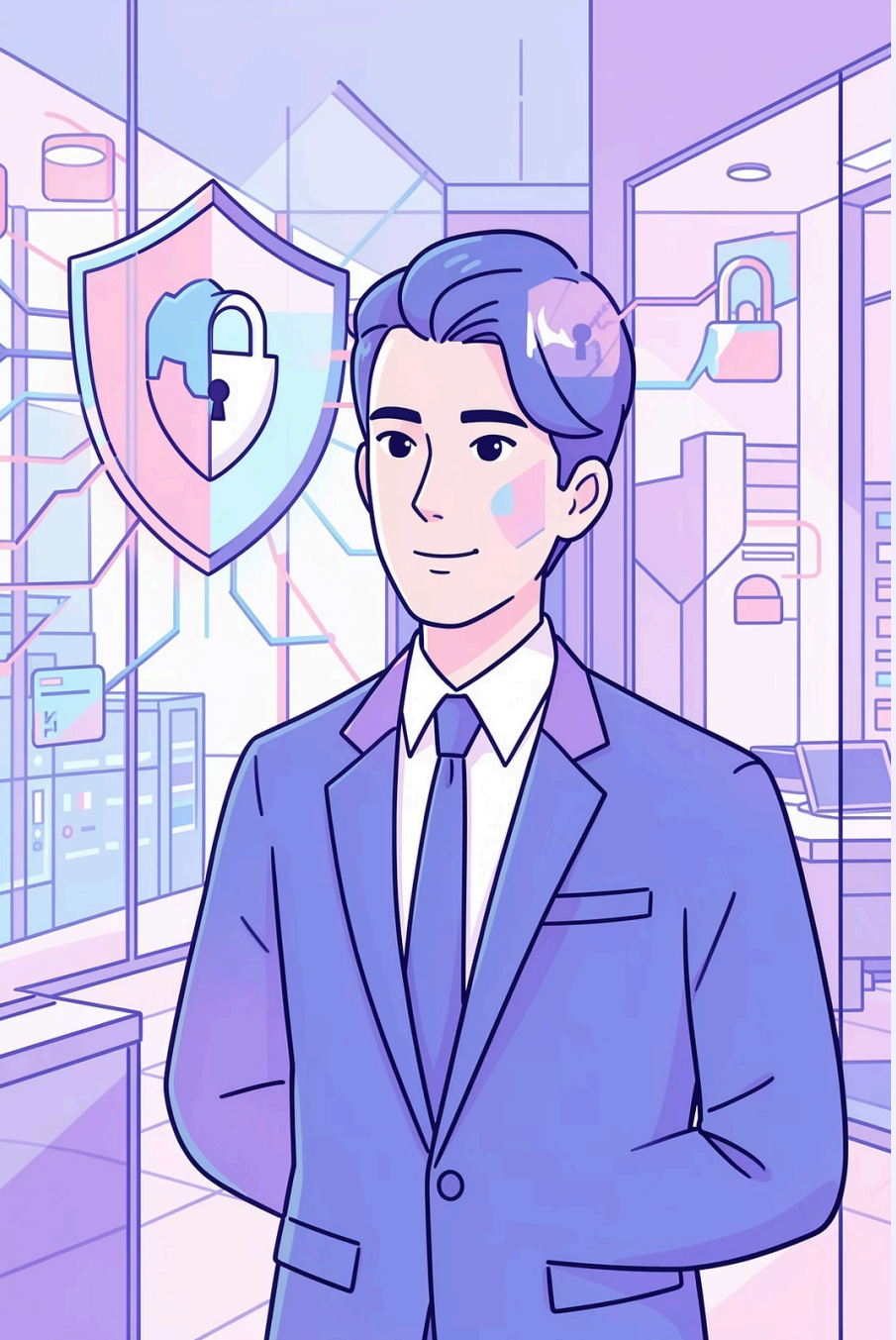

Social Engineering Defense

Security Awareness Training Design Project

Pretexting, Baiting, Tailgating & Psychological Manipulation

Prepared and Presented By:

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- Ajith Mohan

| PG Certificate Program in AI/GenAI Powered Cybersecurity | 7 Feb 2026

Team Roles and Responsibilities

Name	Role	Responsibilities
Madhurjya Deka	Scrum Master	Facilitate meetings, track progress
Shamanth R	Researcher	Research techniques, compile findings
Kacham Sai Teja	Defence Analyst	Research mitigation, review report
Ajith Mohan	Github Lead	Manage deliverables, oversee quality

Project Timeline & Key Decisions

Date	Meeting Type	Topic	Decisions Made
25th Jan	Sprint Planning - Day 1	User Assignment, Topic Discussion	Assigned roles, discussed project user stories breakdown and deliverables. Sprint planning of user
26th Jan	Daily Standup 1	Understanding of the Project and Deliverables	Had assigned research and understood the project and its deliverables
27th Jan	Daily Standup 2	Understanding of the Project and Deliverables	Checked on the roadblocks and progress. Usage of AI tools discussed
28th Jan	Daily Standup 3	Understanding of the Project and Deliverables	Collaborated on research documentation
29th Jan	Daily Standup 4	Understanding of the Project and Deliverables	Discussed and collated all research work into one and segmented into appropriate 10 slides. Research required for writing and design
30th Jan	Daily Standup 5	Collation and Structure	Discussed and collated all research work into one and segmented into appropriate 10 slides. Research required for writing and design
31st Jan	Mid Sprint Review	Slide Design, Structure and Assignment	Discussed and collated all research work into one and segmented into appropriate 10 slides. Research required for writing and design
1st Feb	Daily Standup 6	Assignment	Skipped
3rd Feb	Daily Standup 7	Final draft of collated document	Skipped to work on the readme topics
4th Feb	Daily Standup 8	PPT Assimilation	Tested with multiple contents, used ChatGPT to trim and highlight the important and relevant contents
5th Feb	Daily Standup 9	Final presentation and review	Reviewed and corrected final presentation
7th Feb	Sprint Review	Final Demo	Reviewed and corrected final presentation, confirmation offline
8th Feb	Sprint Retrospective	Retrospective	Discussed

Today's Roadmap

01

Training Needs Analysis

Assessing organizational security gaps and audience profiles

02

Module Design Document

Curriculum structure and learning outcomes

03

Assessment Strategy

Measuring knowledge and behavioral change

04

Engagement Techniques

Interactive scenarios and gamification

05

Implementation Plan

Rollout timeline and success metrics

06

Executive Summary

Program overview and ROI projections

Executive Summary

Purpose & Value of the Program

The Challenge

Social engineering drives 90% of security breaches

Technology alone cannot stop human-based attacks

Our Approach

Behavioral defense training, not just awareness

Role-based learning with real-world scenarios

Expected Outcomes

Reduced incident risk by 60%

Improved employee vigilance

Measurable security maturity growth

Why Social Engineering Works

Psychology Over Technology

Attackers Exploit Human Nature

Trust

We naturally want to help colleagues

Authority

We comply with perceived leadership

Fear

Threats trigger immediate action

Curiosity

Unknown links tempt exploration

Urgency

Time pressure bypasses critical thinking

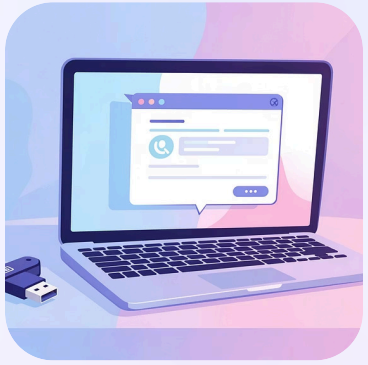
"Understanding attacker psychology is the first step to defense."

Common Social Engineering Techniques

The Attack Surface Overview

Pretexting

Fabricated scenarios to extract sensitive information



Baiting

Tempting offers that deliver malware or steal credentials

Tailgating

Physical security breach via social courtesy

Psychological Manipulation

Emotional triggers that bypass rational judgment

Pretexting & Baiting

Threat Deep Dive

Pretexting Tactics

Attackers create convincing false identities to justify requests

- Fake IT support calls
- Vendor impersonation
- Executive assistants requesting wire transfers
- Background verification "surveys"

Defense: Always verify identity through known channels

Baiting Exploits

Malicious lures that exploit curiosity and greed

- Infected USB drives in parking lots
- Free software downloads with malware
- "You won a prize" email links
- Fake job offers requiring credential submission

Defense: Adopt zero-trust mindset for unexpected offers

Tailgating & Psychological Manipulation

Physical + Emotional Exploitation

Tailgating Threats

Unauthorized physical access via social courtesy

- Following employees through secure doors
- Exploiting politeness and "helpfulness"
- Common in offices, data centers, server rooms

Psychological Manipulation Tactics

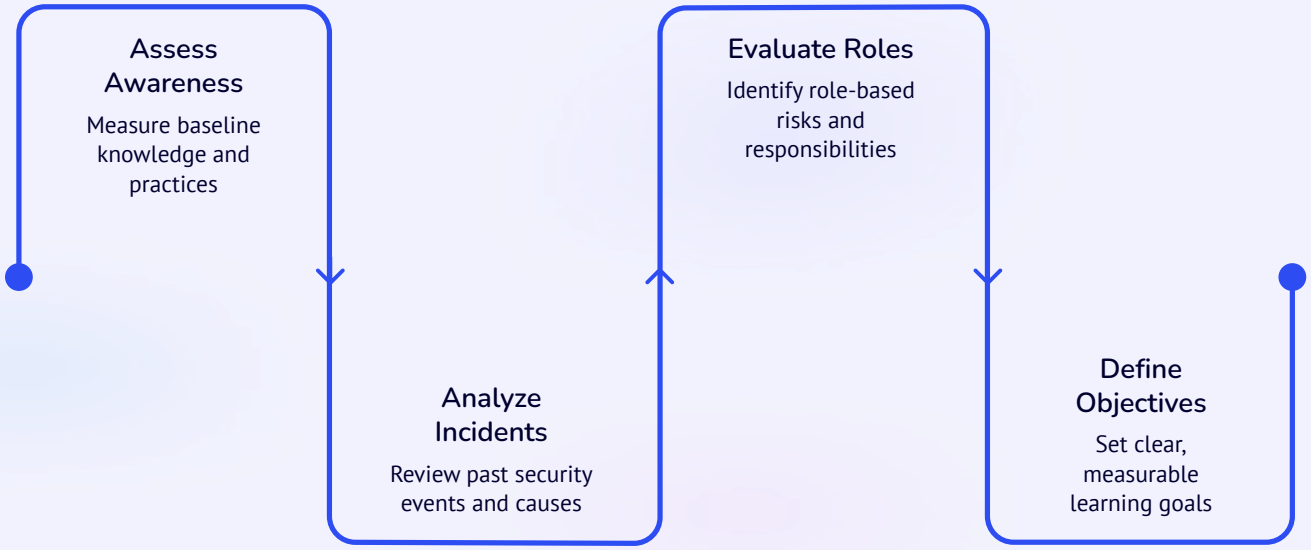
Emotional triggers that override security protocols

- **Fear:** "Your account has been compromised"
- **Authority:** "The CEO needs this immediately"
- **Urgency:** "You must act within 10 minutes"

Key Message: Humans are the primary attack vector. Technical defenses fail when people do.

Training Needs Analysis

Deliverable 1: Understanding the Audience



Assessment Areas

Target Audiences

- General employees (all departments)
- IT/Admin staff (elevated privileges)
- Executives (high-value targets)

Comprehensive evaluation identifies gaps and defines clear, measurable learning objectives per role

- ### Current Awareness Level

  Baseline knowledge and security practices

- ### Past Incidents

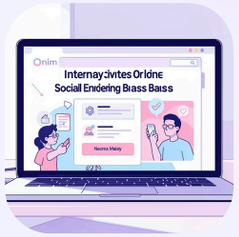
  Historical breaches and near misses

- ### Role-Based Risk Exposure

  Department-specific vulnerabilities

Module Design Document

Deliverable 2: Comprehensive Curriculum Structure



Module 1: Social Engineering Basics

Foundational concepts and attacker methodologies

Module 2: Pretexting Defense

Identity verification protocols and red flag recognition

Module 3: Baiting Defense

Zero-trust practices for unexpected offers and media

Module 4: Tailgating Prevention

Physical access control and challenge procedures

Module 5: Psychological Manipulation Awareness

Recognizing emotional triggers and pressure tactics

Delivery Methods

- Instructor-led workshops
- Scenario-based simulations
- Microlearning video modules
- Interactive e-learning platform

Assessment Strategy

Deliverable 3: Measuring Training Effectiveness

Assessment Components

1

Pre-Training Baseline Quiz

Establish initial knowledge levels

2

Post-Training Assessment

Measure knowledge acquisition

3

Scenario-Based Exercises

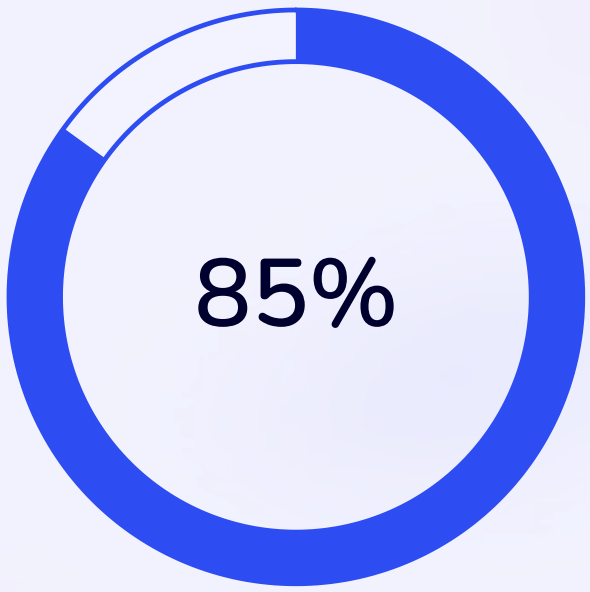
Real-world application testing

4

Behavioral Observation

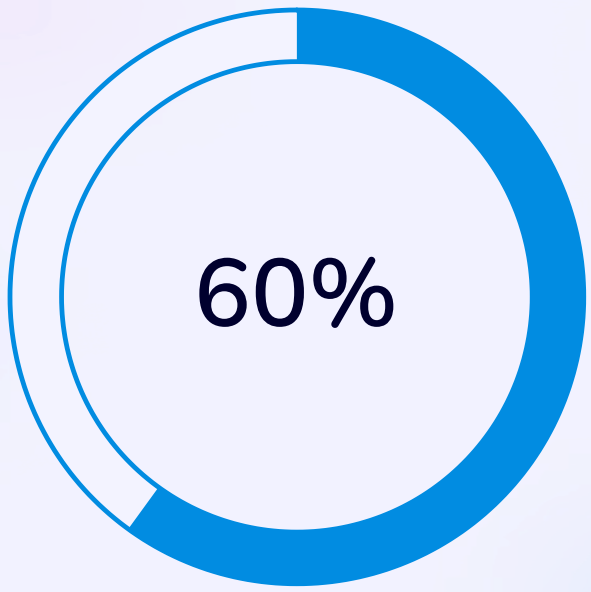
Ongoing monitoring and simulated attacks

Success Metrics



Knowledge Improvement Target

Average score increase post-training



Risk Behavior Reduction

Decrease in simulated attack success rate

Reporting Increase

Triple the incident reporting rate

Engagement Techniques

Deliverable 4: Keeping Learners Involved

Key Techniques

Gamified Quizzes

Interactive challenges to test knowledge.

Role-Play Simulations

Hands-on practice with social engineering scenarios.

Phishing & Baiting Scenarios

Simulated attacks to build recognition and response.

Leaderboards & Rewards

Encourages participation and healthy competition.

Why They Are Effective

Emotional Involvement

Strengthens memory and long-term retention.

Learning by Doing

Active participation solidifies understanding.

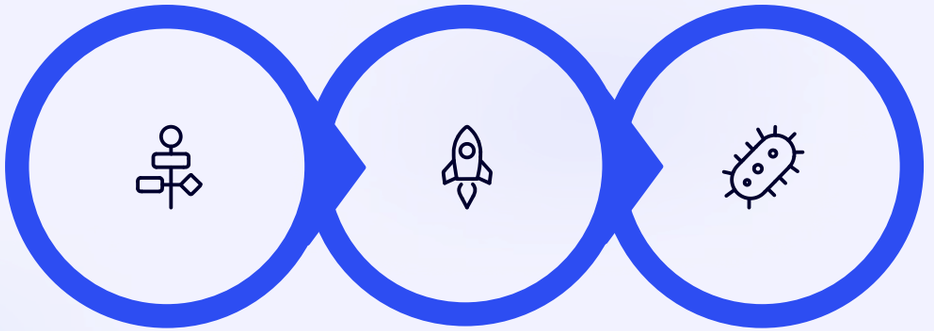
Behavioral Change

Repeated practice forms new, secure habits.

Implementation Plan

From Design to Deployment

Deployment Timeline



Key Resources

- Dedicated training team
- Leverage existing LMS platform
- IT security team for technical support
- Internal communications support

Success Metrics

A phased approach ensures smooth integration and minimal disruption across the organization.

Completion Rates

Target 95% across all employee groups

Assessment Scores

Average 80% post-training knowledge retention

Incident Reduction

Reduce social engineering incidents by 60%

Conclusion & Key Takeaways

Building a Human Firewall

Social engineering targets people, not systems

Human vulnerabilities are the weakest link in any security chain.

Awareness + practice = defense

Educated employees with practiced responses are the strongest defense.

Continuous training is essential

The threat landscape evolves, and so must our collective knowledge and skills.

"Security is not a tool — it’s a behavior."