Project Description

As a member of the expanding security team at a company dedicated to sneaker enthusiasts and collectors, I am excited to contribute to the upcoming launch of our mobile app designed to simplify the buying and selling of shoes for our customers.

In my role, I am conducting a thorough threat model of the application using the PASTA (Process for Attack Simulation and Threat Analysis) framework. This involves systematically working through each of the seven stages of the framework to identify and address the security requirements necessary to protect our users and their data. My goal is to ensure that the app not only meets business objectives but also adheres to best practices in security, providing a safe and reliable platform for our community.

PASTA worksheet

Stages	Sneaker company
I. Define business and security objectives	Make **2-3 notes** of specific business requirements that will be analyzed. ● *The app will offer several different payment options* ● *The app will process payments* ● *Must be compliant with legal regulations*
II. Define the technical scope	List of technologies used by the application: ● *Application programming interface (API)* ● *Public key infrastructure (PKI)* ● *SHA-256* ● *SQL* APIs enable efficient communication between software components, facilitating seamless integration. PKI provides a robust framework for authentication and data encryption through digital certificates, enhancing security. SHA256, a cryptographic hash function, ensures data integrity and is crucial for digital signatures. Together, these technologies form a critical infrastructure for developing secure, scalable, and interconnected modern applications, protecting sensitive information and enabling trusted communications
III. Decompose application	Sample data flow diagram
IV. Threat analysis	List **2 types of threats** in the PASTA worksheet that are risks to the information being handled by the application. ● *Employee Social Engineering* ● *Phishing attacks*
V. Vulnerability analysis	List **2 vulnerabilities** in the PASTA worksheet that could be exploited. ● *SQL Injection* ● *Session Hijacking*
VI. Attack modeling	Sample attack tree diagram

VII. Risk analysis and impact	List **4 security controls** that you've learned about that can reduce risk. Principle of least privilege, 2 factor authentication, sha-256, Input sanitation

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