PASTA worksheet

Stages	Sneaker company
I. Define business and security objectives	• *The app must process financial transactions securely.* • *Compliance with PCI-DSS regulations is essential.* • *Considerations for back-end processing efficiency are necessary.*
II. Define the technical scope	List of technologies used by the application: • *Application programming interface (API)* • *Public key infrastructure (PKI)* • *SHA-256* • *SQL* Prioritize APIs because of their crucial role in data exchange for customers, partners, and employees, connecting different systems. Evaluate specific API weaknesses before deciding their importance, given the security risks they pose.
III. Decompose application	Sample data flow diagram
IV. Threat analysis	• *Internal Threats: SQL injection, unauthorized database access.* • *External Threats: Phishing attacks, malware injection via API.*
V. Vulnerability analysis	• *Codebase vulnerabilities: Lack of input validation, BRoken API token.* • *Database weaknesses: Insecure configurations, lack of encryption.*
VI. Attack modeling	Sample attack tree diagram
VII. Risk analysis and impact	Security Controls: Use SHA-256 for hashing, establish incident response procedures, enforce strong password policies, and apply the principle of least privilege.