

Scenario

Review the following scenario. Then complete the step-by-step instructions.

You're part of the growing security team at a company for sneaker enthusiasts and collectors. The business is preparing to launch a mobile app that makes it easy for their customers to buy and sell shoes.

You are performing a threat model of the application using the PASTA framework. You will go through each of the seven stages of the framework to identify security requirements for the new sneaker company app.

PASTA worksheet

Stages	Sneaker company
I. Define business and security objectives	<p>Make 2-3 notes of specific business requirements that will be analyzed.</p> <ul style="list-style-type: none">• <i>App will process the transactions.</i>• <i>The app will be needed to do back-end processing</i>• <i>Industry regulations (PCI-DSS) should be followed</i>
II. Define the technical scope	<p>List of technologies used by the application:</p> <ul style="list-style-type: none">• <i>Application programming interface (API)</i>• <i>Public key infrastructure (PKI)</i>• <i>SHA-256</i>• <i>SQL</i> <p>The API we are implementing will be responsible for the transaction or exchange of the data between the customers and employees that's why it should be prioritized.</p>
III. Decompose application	Sample data flow diagram
IV. Threat analysis	<p>List 2 types of threats in the PASTA worksheet that are risks to the information being handled by the application.</p> <ul style="list-style-type: none">• <i>Session-Hijacking</i>

	<ul style="list-style-type: none"> • <i>Injection.</i>
V. Vulnerability analysis	<p>List 2 vulnerabilities in the PASTA worksheet that could be exploited.</p> <ul style="list-style-type: none"> • <i>Open API keys.</i> • <i>Lack of prepared statement.</i>
VI. Attack modeling	<p>Sample attack tree diagram</p>
VII. Risk analysis and impact	<p>List 4 security controls that you've learned about that can reduce risk.</p> <ul style="list-style-type: none"> • Password policies • Principle of least privilege • SHA-256 • Incident response procedures.
