

PASTA worksheet

Stages	Sneaker company
I. Define business and security objectives	Business requirements that will be analyzed. <ul style="list-style-type: none">• <i>Easy user sign-up and login</i>• <i>User account management (buyers and sellers)</i>• <i>PCI-DSS compliance necessary due to currency related transitions</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>SQL contains all the information related to business. It is important that all applications utilizing the database have their queries updated to use prepared statements. This will prevent SQL injections from occurring. Proper access controls for token usage on API's should utilize least privileged access roles. This will ensure that only authorized roles can perform administrative actions.</p>
III. Decompose application	Sample data flow diagram
IV. Threat analysis	Risks to the information being handled by the application. <ul style="list-style-type: none">• <i>SQL Injection</i>• <i>Session hijacking</i>
V. Vulnerability analysis	vulnerabilities that could be exploited. <ul style="list-style-type: none">• <i>No prepared statements for SQL queries</i>• <i>Broken authentication token controls</i>
VI. Attack modeling	Sample attack tree diagram
VII. Risk analysis and impact	Prepare SQL statements for queries, enhance password policy, implement least privilege principles, and improve incident response procedures.

