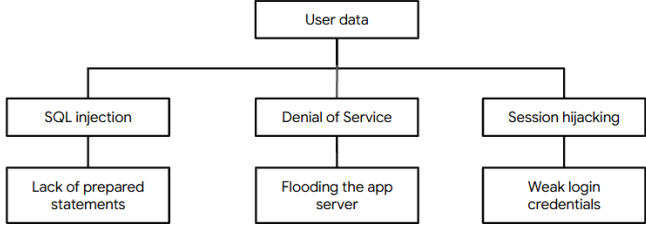


PASTA worksheet

Stages	Sneaker company
I. Define business and security objectives	The app will process transactions that allows the user to make payment easily. It'll be doing back-end processing. Users can directly talk with sellers for their queries.
II. Define the technical scope	<i>Over the other technologies, I will prioritize PKI because it encrypts the customer's sensitive personally identifiable information (SPII). From a security perspective, if an attack happens the customer data is secured. And with SHA-256, it'll be so hard for the actor to steal the SPII.</i>
III. Decompose application	<p style="text-align: center;">Data flow diagram</p> <p>Note: This data flow diagram represents a single process. Data flow diagrams for an application like this are normally much more complex.</p> <pre> graph LR User[User] -- "Adding sneakers to cart" --> System((Sneaker System)) User -- "Paying the amount" --> System User -- "Getting in talk with customer care" --> System Admin[Admin] -- "Generating Invoice" --> System Admin -- "Updating Catalog" --> System Admin -- "Helping Customers" --> System </pre>
IV. Threat analysis	<ul style="list-style-type: none"> ● SQL Injection ● Session hijacking ● Denial of Service (DOS) ● Phishing
V. Vulnerability analysis	<ul style="list-style-type: none"> ● Lack of Prepared Statement (A coding technique that executes a SQL statement before passing them to the database). ● Weak Login Credentials

VI. Attack modeling	<p style="text-align: center;">Sample attack tree</p> <p>Note: Applications like this normally have large, complex attack trees with many branches.</p>  <pre> graph TD A[User data] --> B[SQL injection] A --> C[Denial of Service] A --> D[Session hijacking] B --> E[Lack of prepared statements] C --> F[Flooding the app server] D --> G[Weak login credentials] </pre>
VII. Risk analysis and impact	<ul style="list-style-type: none"> ● <i>SHA-256 Hashing</i> ● <i>Playbook (Often provided by the Firm)</i> ● <i>Prepared Statement</i> ● <i>Strong Password Policy</i> ● <i>Principle of Least Privilege</i>