

PASTA worksheet

Stages	Sneaker company
I. Define business and security objectives	Make 2-3 notes of specific business requirements that will be analyzed. <i>The developed application is directed to E-Commerce and will deal with a lot of transactions like orders, payments etc. This application also should manage users and sellers accounts, provide a chat service and respect all legal implications to payments handling and RGD;</i>
II. Define the technical scope	List of technologies used by the application: <i>With all transactions to deal and all data incoming and outcoming, the application implements an API to make HTTP requests to the server, SQL to interact with the database and PKI to grant the confidentiality of data.</i>
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. <i>The application can be affected by a brute-force attack or SQL injection on the login form, by a DoS attack on the server database.</i>
V. Vulnerability analysis	List 2 vulnerabilities in the PASTA worksheet that could be exploited. <i>Authentication by SSO can be exploited by brute-force attack, SQL injection can be used in the input fields.</i>
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. To mitigate the risk we can use MFA protocol for authentication, verify all the input data before making a request and limit max database requests to avoid shutdown.
