

The STRIDE Threat Modeling of all the DFD elements are as follows:

DFD Element: Processes

Threat	Description of Threat Events/Scenarios and Impact	Mitigation Techniques
<i>Spoofing</i>	Attackers spoof the identity of legitimate users to gain unauthorized access.	Use strong authentication (e.g., MFA), enforce strong password policies, use SSL certificates.
<i>Tampering</i>	Attackers modify the code or analysis results during the static code analysis process.	Implement proper input validation, use checksums/hashes, employ code signing.
<i>Repudiation</i>	Users deny performing certain actions within the static code analysis process.	Implement logging and auditing mechanisms.
<i>Information Disclosure</i>	Sensitive information is exposed during the static code analysis process.	Encrypt data in transit and at rest, enforce access controls.
<i>Denial of Service</i>	Attackers overload the system with requests, causing the process to become unavailable.	Implement rate limiting, use robust infrastructure, employ load balancing.
<i>Elevation of Privilege</i>	Attackers gain higher privileges, allowing them to control the process.	Apply the principle of least privilege, use role-based access control, review and update access permissions regularly.

DFD Element: Interactors

Threat	Description of Threat Events/Scenarios and Impact	Mitigation Techniques
<i>Spoofing</i>	Attackers spoof the identities of legitimate users to gain unauthorized access.	Use strong authentication (e.g., MFA), enforce strong password policies, implement CAPTCHA.
<i>Repudiation</i>	Users deny performing certain actions within the system.	Implement logging and auditing mechanisms, secure logs from tampering.

DFD Element: Data Flows

Threat	Description of Threat Events/Scenarios and Impact	Mitigation Techniques
<i>Tampering</i>	Attackers modify data in transit between components of the system.	Use secure communication protocols (HTTPS, SSL/TLS), implement data integrity checks, validate data at client and server sides.
<i>Information Disclosure</i>	Sensitive information is exposed during data transmission.	Encrypt data in transit (HTTPS, SSL/TLS), enforce access controls, use VPNs.
<i>Denial of Service</i>	Attackers flood the system with excessive requests, disrupting normal data flows.	Implement rate limiting, use load balancing, deploy WAFs.

DFD Element: Data Stores

Threat	Description of Threat Events/Scenarios and Impact	Mitigation Techniques
<i>Tampering</i>	Attackers modify or corrupt data stored in the system's databases.	Implement strong access controls, use database encryption, perform regular integrity checks, maintain backups.
<i>Information Disclosure</i>	Sensitive data stored in the system's databases is accessed by unauthorized users.	Encrypt data at rest, enforce strict access controls, use database activity monitoring.
<i>Denial of Service</i>	Attackers overload the database with excessive requests, making it unavailable.	Implement database load balancing, use query optimization, deploy database firewalls.