1. Authentication Mechanisms: User identity verification, login credential validation, FIDO, OAuth

1.1User Identity Verification: Confirms a user's identity using credentials like usernames and passwords, ensuring only authorized access.

1.2Credential Validation: Validates login credentials e.g., passwords, PINs to ensure they match stored data, confirming identity.

1.3Modern Authentication Protocols: Includes advanced methods like FIDO passwordless authentication and OAuth secure access to third-party applications without sharing passwords.

2. Anomaly detection: Breach detection, data leak detection

2.1Breach Detection: Identifies unauthorized access or intrusion attempts in a system, helping to prevent or mitigate security breaches.

2.2Data Leak Detection: Monitors for unauthorized data exposure or transfer, ensuring sensitive information is not disclosed or mishandled.

3. Cryptography: Data encryption, hashing, signatures, symmetric/asymmetric

3.1Data Protection: Data encryption, hashing, signatures

3.2Cryptographic Algorithms: Symmetric/asymmetric algorithms

3.3Key and Certificate Management: SSL/TLS certificates, public/private key management, certificate authorities

4. Feature Requests & Enhancements: Requests for new features, functional improvements, or user experience upgrades.

4.1Feature Requests: Requests for new features, enhancements, or improvements to existing functionalities

4.2Improvement: Optimize or refactor existing functionality

4.3UI/UX Enhancements: Improve interface experience and widget behavior

5. Error & Exception Handling: Reports of system errors, unexpected behaviors, crashes, or inconsistencies.

5.1Build/Compile Errors: Build failures, Makefile issues, missing dependencies

5.2Runtime Errors: Crashes, exceptions, unexpected behaviors during execution

5.3Network/Protocol Errors: Request failures, connection reset, protocol mismatch

6. Configuration & Management: Discussions about system setup, administration, deployment, or upgrades.

6.1Security Configuration: Config audits, key settings, access policies

6.2System Deployment: Deployment strategies, upgrade processes, rollback plans

7. Compatibility & Dependencies: Issues related to software compatibility, dependency conflicts, or version requirements.

7.1Third-party Dependencies: Library conflicts, missing packages, version lock issues

7.2Version Compatibility: Compatibility between different software versions, backward compatibility

8. Performance Optimization: Focus on improving system performance, response times, or resource efficiency.

8.1Latency/Speed Optimization: Slow response, delays, bottlenecks

8.2Resource Usage Optimization: Memory leaks, CPU usage, disk space issues