# Functional Requirement

# 3 Functional Requirements   
<<Functional Requirements List>>   
- \*\*1.1\*\*: The system shall encrypt all sensitive data using AES-256.   
- \*\*1.2\*\*: The system shall decrypt all AES-256 encrypted data without loss of integrity.   
- \*\*1.3\*\*: The system shall ensure that all data processing activities are auditable by providing a detailed log of user actions and system events.   
- \*\*1.4\*\*: The system shall allow users to request access to or deletion of their data through a dedicated user interface.   
- \*\*2.1\*\*: The system shall update real-time order statuses within 1 second of receiving a message from the inventory API.   
- \*\*2.2\*\*: The system shall aggregate and route messages between the user interface and external services using a defined protocol.   
- \*\*3.1\*\*: The system shall provide a list of common customer inquiries with predefined answers.   
- \*\*3.2\*\*: The system shall allow a customer service representative to manually compose a response to a customer inquiry via email or chat, with a success rate of at least 99%.   
- \*\*3.3\*\*: The system shall determine the appropriate communication channel based on the type of inquiry, with the criteria defined in the configuration settings.   
- \*\*4.1\*\*: The system shall initiate the reorder process by generating a purchase request to the inventory API when critical inventory levels are reached.

# External Description

# 5 Constraints   
<<Constraints List>>   
- \*\*5.1 C-REG-001\*\*: The system shall be compliant with ISO/IEC 27001 standards for data encryption and access control.   
- \*\*5.2 C-REG-002\*\*: The system shall be compliant with GDPR regulations for data privacy and user consent.   
- \*\*5.3 C-INT-001\*\*: The system shall integrate with the inventory API by updating order statuses every 5 seconds and handling any error codes returned by the API.   
- \*\*5.4 C-INT-002\*\*: The system shall initiate the reorder process by sending a purchase order request to the inventory API with a success rate of at least 99%.   
- \*\*5.5 C-INT-003\*\*: The system shall aggregate and route messages between the user interface and inventory API using a message queue system, ensuring message delivery and error handling.   
- \*\*5.6 C-INT-004\*\*: The system shall update real-time data within 2 seconds of receiving input from external sources, with a guaranteed success rate of 99.5%.   
- \*\*5.7 C-OTH-001\*\*: The system shall not include any duplicate requirements for real-time data updates; all such requirements shall be consolidated under NFR-8.