

Project Design Phase-II Data Flow Diagram & User Stories

Date	31 st October 2023
Team ID	8.1
Project Name	System that uses AI for real-time data classification, leak detection, and prevention to enhance data security.
Maximum Marks	4 Marks

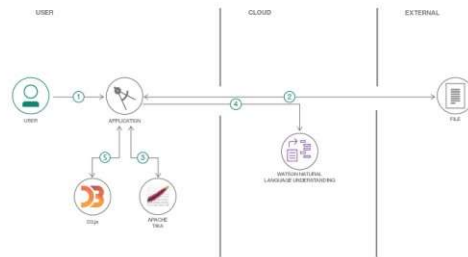
Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

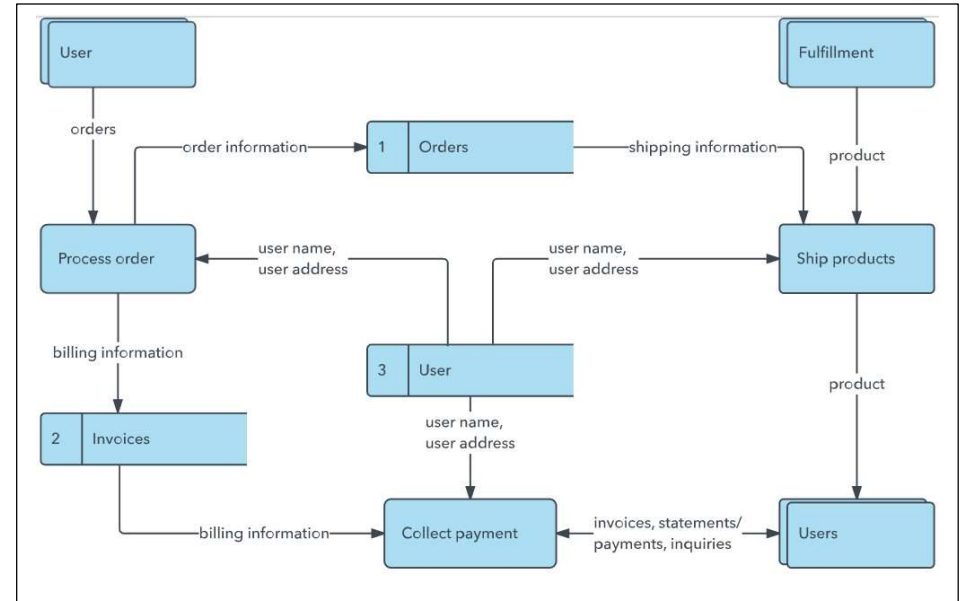
Example: DFD Level 0 (Industry Standard)

Example: [\(Simplified\)](#)

Flow



1. User configures credentials for the Watson Natural Language Understanding service and starts the app.
2. User selects data file to process and load.
3. Apache Tika extracts text from the data file.
4. Extracted text is passed to Watson NLU for enrichment.
5. Enriched data is visualized in the UI using the D3.js library.



User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Data Security Analyst	Real-Time Data Classification	USN-1	As a data security analyst, I need the system to classify incoming data in real-time using advanced AI algorithms to ensure swift and accurate identification of potential security threats.	<ul style="list-style-type: none">- The system accurately classifies incoming data with an accuracy rate exceeding 90%.- Data classification results are available for analysis and review within a maximum of 5 seconds.	High	Sprint-1
Cybersecurity Operations Manager	Automated Response to Anomalies	USN-2	As a cybersecurity operations manager, I require the system to automatically respond to identified data anomalies by initiating immediate security protocols and notifying relevant personnel for further investigation.	<ul style="list-style-type: none">- The system swiftly responds to anomalies within 3 seconds of detection, minimizing the potential impact of security breaches.- Automated responses align with predefined security protocols and regulatory requirements.	High	Sprint-1
Chief Information Officer (CIO)	Comprehensive Data Security Reporting	USN-3	As a CIO, I need the system to generate comprehensive reports on data security measures, including real-time threat detection, incident response, and data leak prevention, to ensure regulatory compliance and effective decision-making.	<ul style="list-style-type: none">- The system generates detailed reports on data security activities at regular intervals, providing insights for strategic decision-making.- Reports include an overview of detected threats, incident response effectiveness, and data leak prevention measures.	Medium	Sprint-2

Security Software Developer	Seamless Integration with Existing Security Infrastructure	USN-4	As a security software developer, I aim to seamlessly integrate the AI-driven security system with our existing security infrastructure, ensuring minimal disruptions and enhanced overall data protection	<ul style="list-style-type: none"> - The system integrates smoothly with existing firewalls, antivirus software, and intrusion detection systems, enhancing overall security capabilities. - Integration does not lead to significant performance degradation or system instability. 	High	Sprint-2
Data Privacy Compliance Officer	GDPR and Data Privacy Compliance	USN-5	As a data privacy compliance officer, I need the system to comply with GDPR and other relevant data privacy regulations, ensuring that all data handling and security measures align with legal requirements.	<ul style="list-style-type: none"> - The system adheres to GDPR guidelines and other relevant data privacy regulations in all data processing and security operations. - Data subjects have the ability to access, modify, and delete their personal information as per legal requirements. 	High	Sprint-3
System Administrator	User Access Management	USN-6	As a system administrator, I need the system to facilitate efficient user access management, allowing me to add, modify, and revoke user privileges based on their roles and responsibilities.	<ul style="list-style-type: none"> - The system provides a user-friendly interface for managing user access and permissions. - Administrators can easily add, modify, or remove user accounts and access privileges without technical complexities. 	High	Sprint-4

	Security Configuration Customization	USN-6	As a system administrator, I want the ability to customize security configurations and parameters to align with the organization's specific security policies and compliance requirements.	<ul style="list-style-type: none"> - The system allows administrators to configure security settings, including password policies, access controls, and data encryption standards. - Customized security configurations seamlessly integrate with existing organizational security protocols. 	High	Sprint-4
	Security Audit Trail		As a system administrator, I require a comprehensive security audit trail that logs all user activities, system changes, and security events for effective monitoring and accountability.	<ul style="list-style-type: none"> - The system generates detailed logs of user activities, system modifications, and security incidents for auditing and review purposes. - Audit trail records are tamper-proof and securely stored for compliance and accountability purposes. 	Medium	Sprint-5
	System Performance Monitoring		As a system administrator, I need the system to provide real-time monitoring of system performance, including resource utilization, network traffic, and security event logs, to ensure optimal system operation.	<ul style="list-style-type: none"> - The system offers a centralized dashboard for monitoring system performance metrics and security event logs. - Administrators can proactively identify performance bottlenecks and security threats to ensure smooth system operations. 	High	Sprint-6

	Backup and Recovery Management		As a system administrator, I require a robust backup and recovery management system to ensure data integrity and system continuity in the event of system failures or security breaches.	<ul style="list-style-type: none"> - The system automatically performs regular data backups and provides a reliable recovery mechanism in case of data loss or system failures. - Backup and recovery processes adhere to industry best practices and compliance standards. 	High	Sprint-6