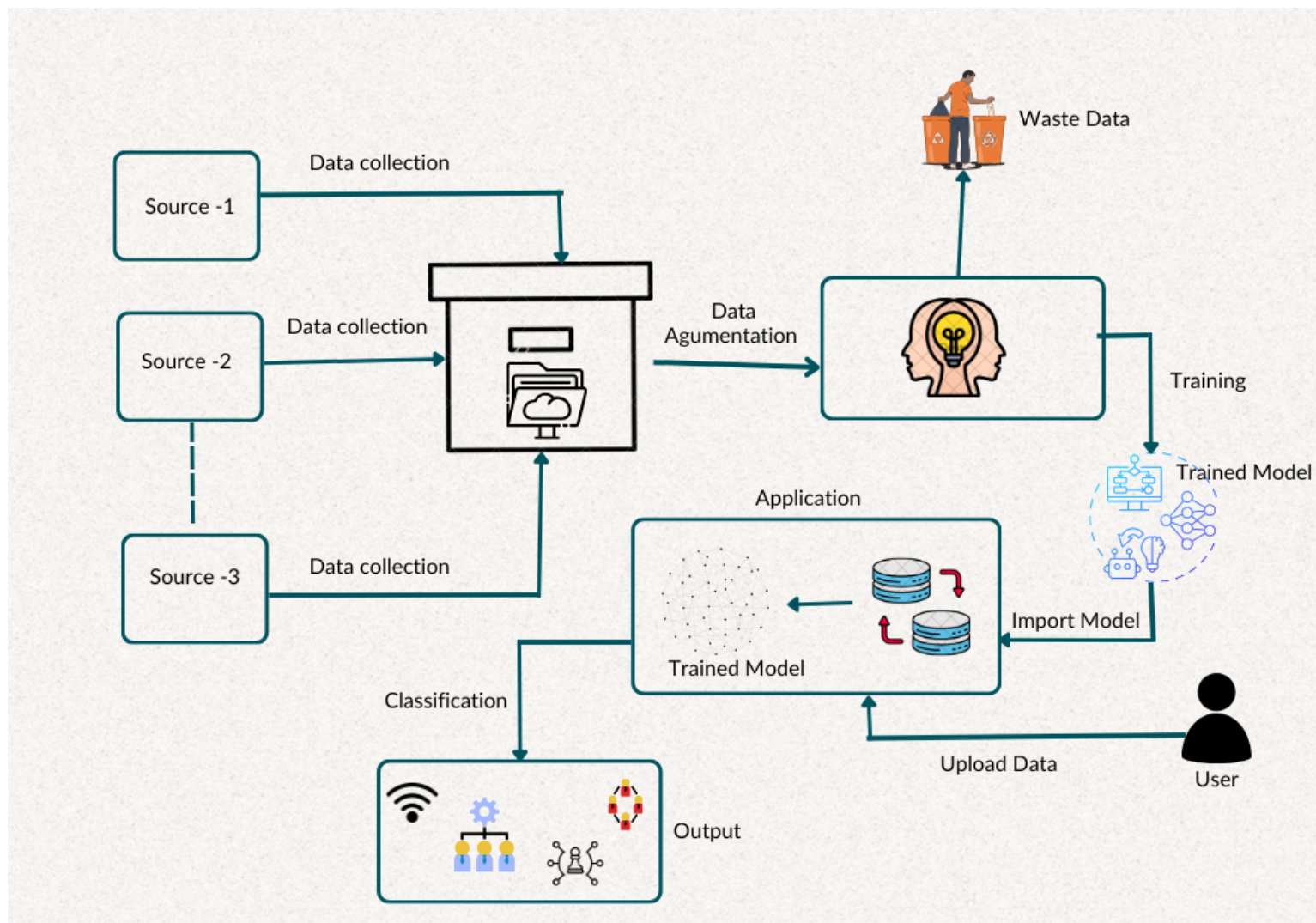


Project Design Phase-III
Data Flow Diagram & User Stories

Date	03 November 2023
Team ID	PNT2023TMID592203
Project Name	Project - AI-Driven Optimization Of 5G Resource Allocation For Network Efficiency
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.



User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Telecommunication Companies and Service Providers	AI-Driven Resource Allocation	USN-1	"As a network operator, I want the AI system to allocate network resources dynamically based on real-time demand and traffic patterns to optimize network efficiency."	The system should allow the upload and integration of historical network data. The integrated data should be available for analysis within the AI system.	High	Sprint-1
Data Scientists and Analysts	Model Integration and Evaluation	USN-2	"As a data scientist, I need to integrate my machine learning models into the system for real-time resource allocation optimization"	Documentation includes guidelines for integrating custom models. The system provides a testing environment to evaluate model performance.	High	Sprint-2
Research Institutions and Academics	AI Model Development and Testing	USN-3	"As a researcher, I need access to data preprocessing tools to clean and prepare the network data for AI model development"	The system should provide data preprocessing tools with the ability to clean and format raw data.	High	Sprint-3
Network Administrators and IT Teams	Network Anomaly Detection	USN-4	"As a network administrator, I want the AI system to detect and alert us to unusual network behavior or security threats"	The AI system should analyze network traffic for anomalies and alert the IT team if any anomalies or threats are detected.	Medium	Sprint-2

5G Users (Telecommunication Professionals)	User Experience Enhancement	USN-5	“As a 5G professional, I want the AI system to provide real-time performance analytics and reporting.”	The system should generate performance reports and provide insights into resource allocation, efficiency, and network health.	Medium	Sprint-2
Project Managers and DecisionMakers	Performance Monitoring	USN-6	“As a Project Manager, I want to monitor and track the performance of the AI-driven allocation system”	The system should provide real-time performance metrics, including resource utilization, network latency, and error rates.	Medium	Sprint 3
Business Analysts and Executives	Performance Reporting	USN-7	“As a business analyst, I want automated reports summarizing network performance and resource utilization, so I can make data-driven recommendations to executives”	Reports are generated weekly, include relevant KPIs, and are delivered via email.	Medium	Sprint 2