Project Design Phase-II
Data Flow Diagram & User Stories

Date	November 1, 2023
Team ID	591161
Project Name	Data-driven insights on Olympic sports for participation and performance
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 rightamount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Level 0 Data Flow Diagram:

- Processes:
  - Process 1: Data Collection and Integration
  - Process 2: Data Analysis and Processing
  - Process 3: Data Visualization
  - Process 4: Data Storage
  - Process 5: User Access and Collaboration

- External Entities:
  - Olympic Organizing Committees
  - International Olympic Committee (IOC)
  - National Olympic Committees
  - Researchers and Analysts
  - Data Users (IOC Officials, Stakeholders)

- Data Stores:
  - Data Warehouse
  - Data Lakes

- Data Flows:
  - Data Flow 1: Data Ingestion (from various sources to Process 1)
  - Data Flow 2: Data Transformation (from Process 1 to Process 2)
  - Data Flow 3: Processed Data (from Process 2 to Process 3)
  - Data Flow 4: Visualization Data (from Process 3 to Process 5)
  - Data Flow 5: Data Storage (from Process 1 to Process 4)
  - Data Flow 6: User Access (from Process 5 to Data Stores and External Entities)
  - Data Flow 7: Insights and Reports (from Process 2 to Data Stores and External Entities)

Level 1 Data Flow Diagram - Detailed for Process 1 (Data Collection and Integration):

- Processes:
  - Process 1.1: Data Extraction
  - Process 1.2: Data Transformation
  - Process 1.3: Data Loading

- External Entities:
  - Olympic Organizing Committees
  - IOC
  - National Olympic Committees

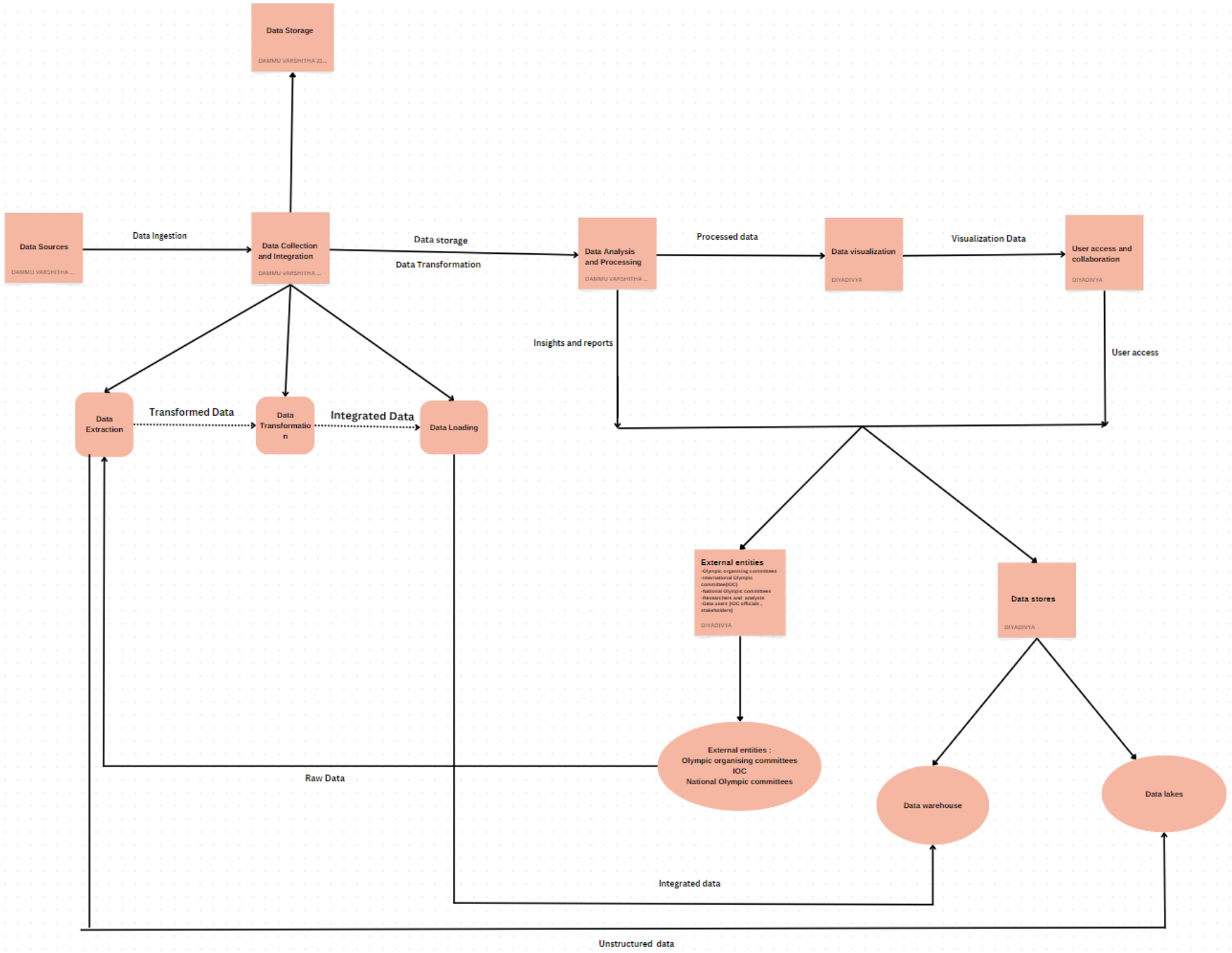
Data Stores:

- Data Warehouse
- Data Lakes

- Data Flows:

- Data Flow 1.1: Raw Data (from External Entities to Process 1.1)
- Data Flow 1.2: Transformed Data (from Process 1.1 to Process 1.2)
- Data Flow 1.3: Integrated Data (from Process 1.2 to Process 1.3)
- Data Flow 1.4: Integrated Data (from Process 1.3 to Data Warehouse)
- Data Flow 1.5: Unstructured Data (from Process 1.1 to Data Lakes)

This Level 1 Data Flow Diagram focuses on the data collection and integration process. The data is initially extracted from external entities, transformed and integrated, and then loaded into the data warehouse and data lakes. Some unstructured data is directed to the data lakes.


Data Storage
DAMMU VARSHITHA 21...
Data Sources
DAMMU VARSHITHA ...
Data Ingestion
Data Collection and Integration
DAMMU VARSHITHA ...
Data storage
Data Transformation
Data Analysis and Processing
DAMMU VARSHITHA ...
Processed data
Data visualization
DIYADIVYA
Visualization Data
User access and collaboration
DIYADIVYA
Insights and reports
User access
Data Extraction
Transformed Data
Data Transformation
Integrated Data
Data Loading
External entities
-Olympic organising committees
-International Olympic committee(IOC)
-National Olympic committees
-Researchers and analysts
-Data users (IOC officials , stakeholders)
DIYADIVYA
Data stores
DIYADIVYA
External entities :
Olympic organising committees
IOC
National Olympic committees
Raw Data
Data warehouse
Data lakes
Integrated data
Unstructured data

User Stories :

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I want the data flow within the system to be efficient and responsive, ensuring quick access to the information I need.	I can access my account/dashboard	Low	Sprint-2
As an Olympic Organizing Committee member	Data sets	USN-2	I want to upload historical athlete and event data to the system so that it can be analyzed and used for future planning.	Ensure that all uploaded data compiles with data privacy regulations and guidelines.	High	Sprint-1
As a Researcher	Access to previous data	USN-3	I want to access athlete performance data from previous Olympic Games so that I can analyze trends and identify factors contributing to success.	The system should provide easy access to athlete performance data from past olympic games through a user friendly interface.	High	Sprint-1
As an Analyst	Access to real-time data websites	USN-4	I want to have access to real-time data feeds from ongoing Olympic events to provide up-to-date insights and reports.	The system should rovide continuous ,low latency access to eveny data,athlete updates, and results with clear documentation for data sources.	Medium	Sprint-1
As an IOC official	Dashboard	USN-5	I want to be able to view interactive visualizations and dashboards that display medal counts, athlete profiles, and historical performance data for decision-making.	User friendly , interactive dashboards for viewing medal counts, athlete profiles and historical performance data across devices.	High	Sprint-1
As a Data engineer	Warehouse access	USN-6	I want to ensure that data is collected, transformed, and loaded accurately into the data warehouse, with validation checks in place.	Ensure data collection , transformation, and loading with validation checks.	Medium	Sprint-1
As a project manager		USN-7	I want to ensure that the data flow diagram accurately represents the system's functionality, and that user requirements are met in the system design and development.	Confirm that the data flow diagram matces user requirements in system design and development.	High	Sprint 1
As a developver	APIs	USN-8	I want to create APIs for external systems to retrieve specific data, such as real-time event results or athlete profiles, for integration into their applications.		Medium	Sprint-1