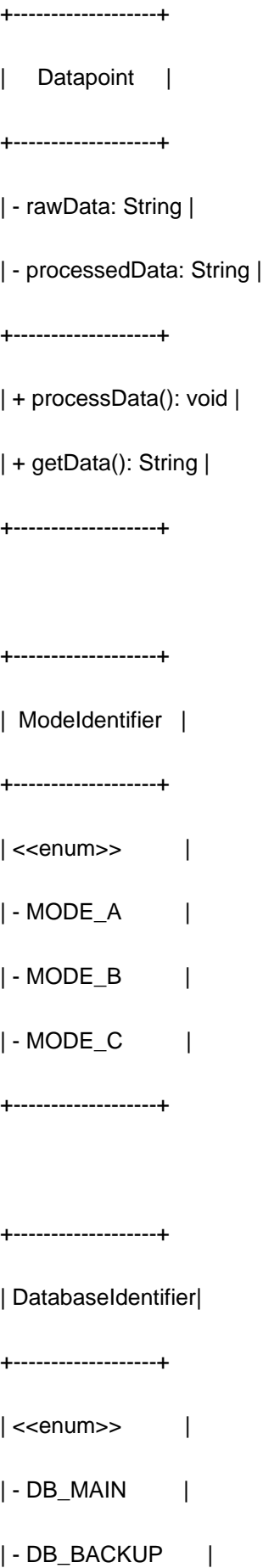


UML Class Diagram: Data Processors for Pipeline



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| DataProcessor |

+-----+

| - mode: ModelIdentifier |

| - db: DatabasIdentifier |

+-----+

| + loadDatapoints(): List<Datapoint> |

| + process(datapoint: Datapoint): void |

| + storeProcessedData(datapoint: Datapoint): void |

+-----+

+-----+

| ErrorLogger |

+-----+

| - logMessages: List<String> |

+-----+

| + logError(message: String): void |

| + getLogs(): List<String> |

+-----+

DataProcessor --> uses --> Datapoint

DataProcessor --> uses --> ModelIdentifier

DataProcessor --> uses --> DatabasIdentifier

DataProcessor --> logs --> ErrorLogger

ERD for Pet Product Database

Entities:

1. **Product**

- ProductID (PK)
- Name
- ManufacturerID (FK)
- Weight (nullable for non-food products)
- Flavor (nullable for non-food products)
- TargetHealthCondition (nullable for non-food products)
- Material (nullable for non-toy products)
- Durability (nullable for non-toy products)
- Color (nullable for non-apparel products)
- Size (nullable for non-apparel products)
- CareInstructions (nullable for non-apparel products)

2. **Animal**

- AnimalID (PK)
- Name

3. **Manufacturer**

- ManufacturerID (PK)
- Name

4. **Customer**

- CustomerID (PK)

- Name

- Email

5. **Transaction**

- TransactionID (PK)

- CustomerID (FK)

- Date

6. **TransactionProduct**

- TransactionProductID (PK)

- TransactionID (FK)

- ProductID (FK)

- Quantity

7. **WalmartLocation**

- LocationID (PK)

- Name

- ZipCode

8. **Shipment**

- ShipmentID (PK)

- OriginLocationID (FK)

- DestinationLocationID (FK)

9. **ShipmentProduct**

- ShipmentProductID (PK)

- ShipmentID (FK)

- ProductID (FK)

- Quantity

10. ****ProductAnimal****

- ProductAnimalID (PK)

- ProductID (FK)

- AnimalID (FK)