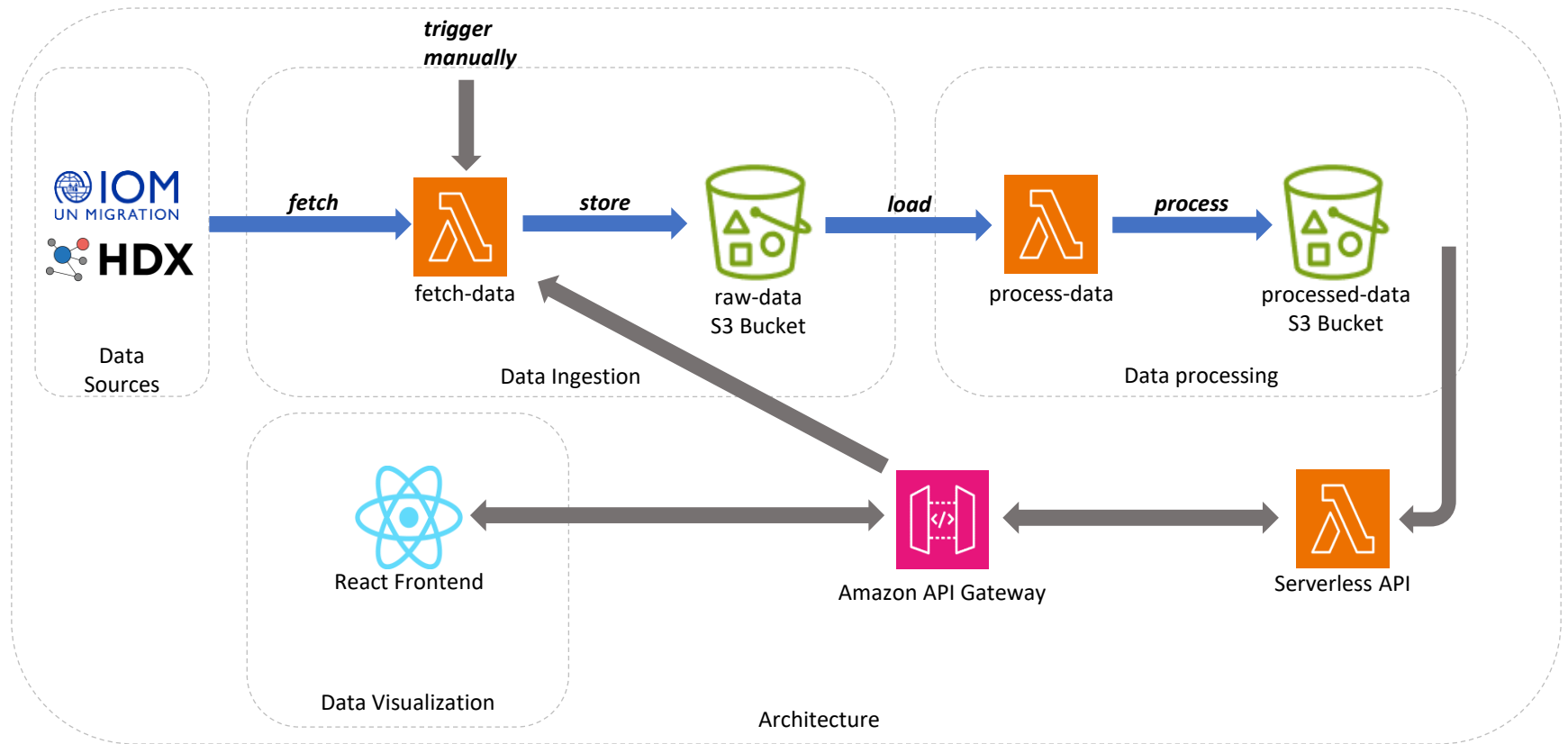# Architecture

Personas

Personal Information
Name: Christine S.

Professional Summary
Job Title: Conflict Analyst
Employer: Analysis and Early Warning Unit, World Food Programme
Area of Expertise: Predictive analysis for food security in Eastern Africa
Background: Political Science, International Law, experience with various international organizations

Job Description and Responsibilities
Primary Role: Conducts predictive analysis to identify potential threats to food security in Eastern Africa.
Key Responsibilities:
-Gathering and analyzing data related to food security in conflict zones.
-Monitoring factors influencing food security in Eastern Africa.
-Extracting and interpreting data from various Excel files regarding internally displaced persons (IDPs).
-Contributing to the World Food Program's efforts to prevent food crises.
Challenges and Pain Points
-**Data Collection:** Difficulty in accessing reliable data to conduct predictive analysis.
-**Data Analysis:** Challenges in estimating how specific factors affect food security in certain regions.
-**Data Management:**
-Managing and sorting through various Excel files from different data sources.
-Manually scanning Excel files with different formats for information about IDPs.

Personas

Personal Information
Name: Erich Sato

Professional Summary
Job Title: Artificial Intelligence Engineer
Employer: WFP Innovation Accelerator
Background: Bachelor in Robotics/ML and Master in Economics
Area of Focus: Using AI and ML to support humanitarian efforts and combat hunger

Job Description and Responsibilities
Primary Role: Implementing machine learning and AI techniques to address humanitarian challenges.
Key Responsibilities:
Conducting predictive analyses focused on Eastern Africa.
Identifying potential threats to food security due to ongoing or emerging conflicts.
Engaging in extensive research, data collection, and analysis.
Forecasting areas needing humanitarian assistance and guiding WFP's strategic response.

Challenges and Pain Points
Data Collection: Difficulty in finding reliable and comprehensive data sources, particularly for internally displaced persons (IDPs).
Data Quality: Dealing with various data sources of different qualities.
Data Processing: Handling data from major relief organizations that are often unprocessable.

Personas

Personal Information
Name: Chiara Pollanch

Professional Summary
Job Title: Conflict Analyst
Specialization: Early Warning in Humanitarian Action and Famine Prevention
Background: Political Science
Employer: Early Warning and Analysis section, Emergency Response team

Job Description and Responsibilities
Primary Role: Focusing on forecasting conflict and its impact on food security.
Key Responsibilities:
-Analyzing factors contributing to potential food crises.
-Coordinating the distribution of food to affected centers in conflict zones.
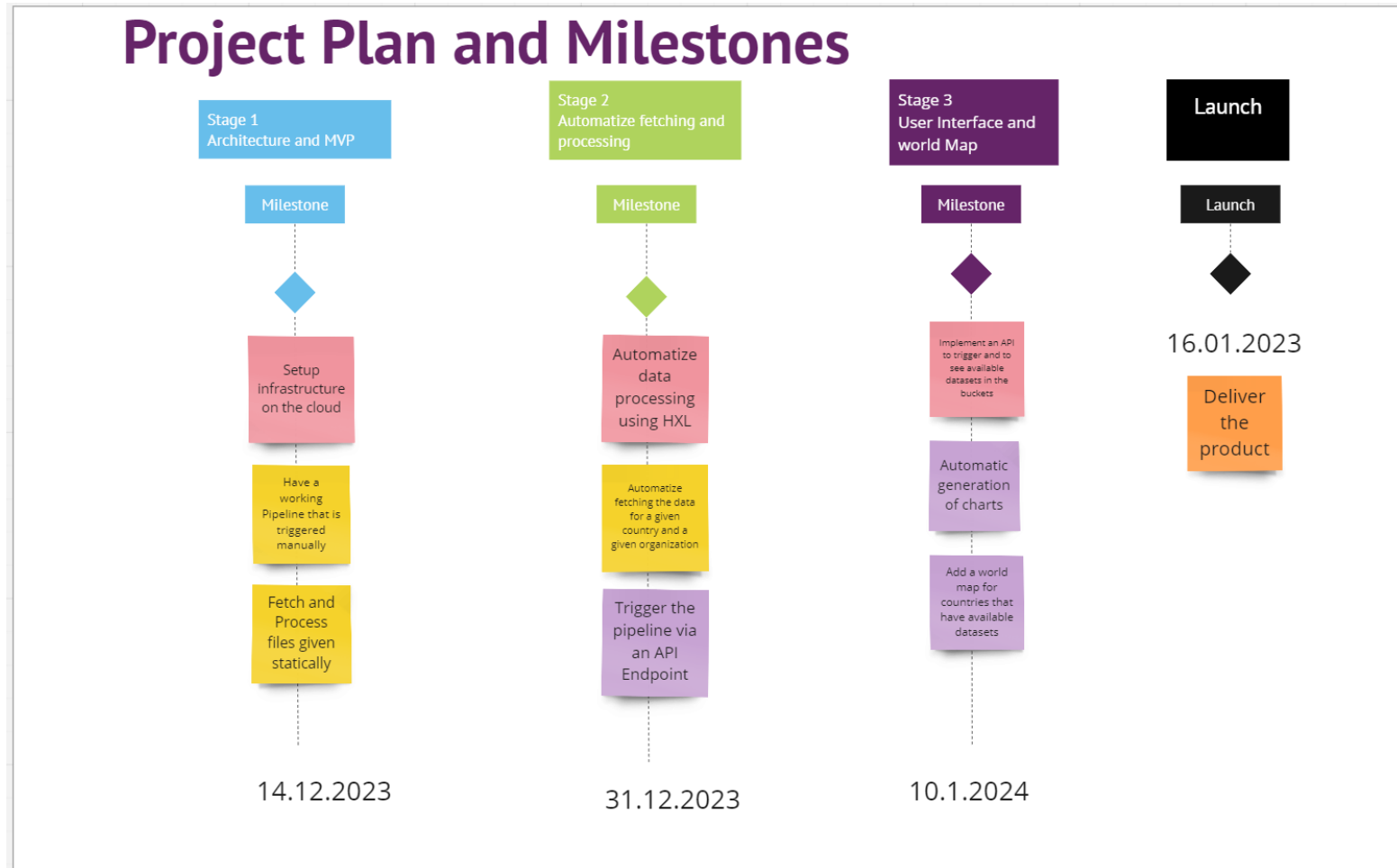-Adjusting strategies based on dynamic changes in conflict zones.

Challenges and Pain Points
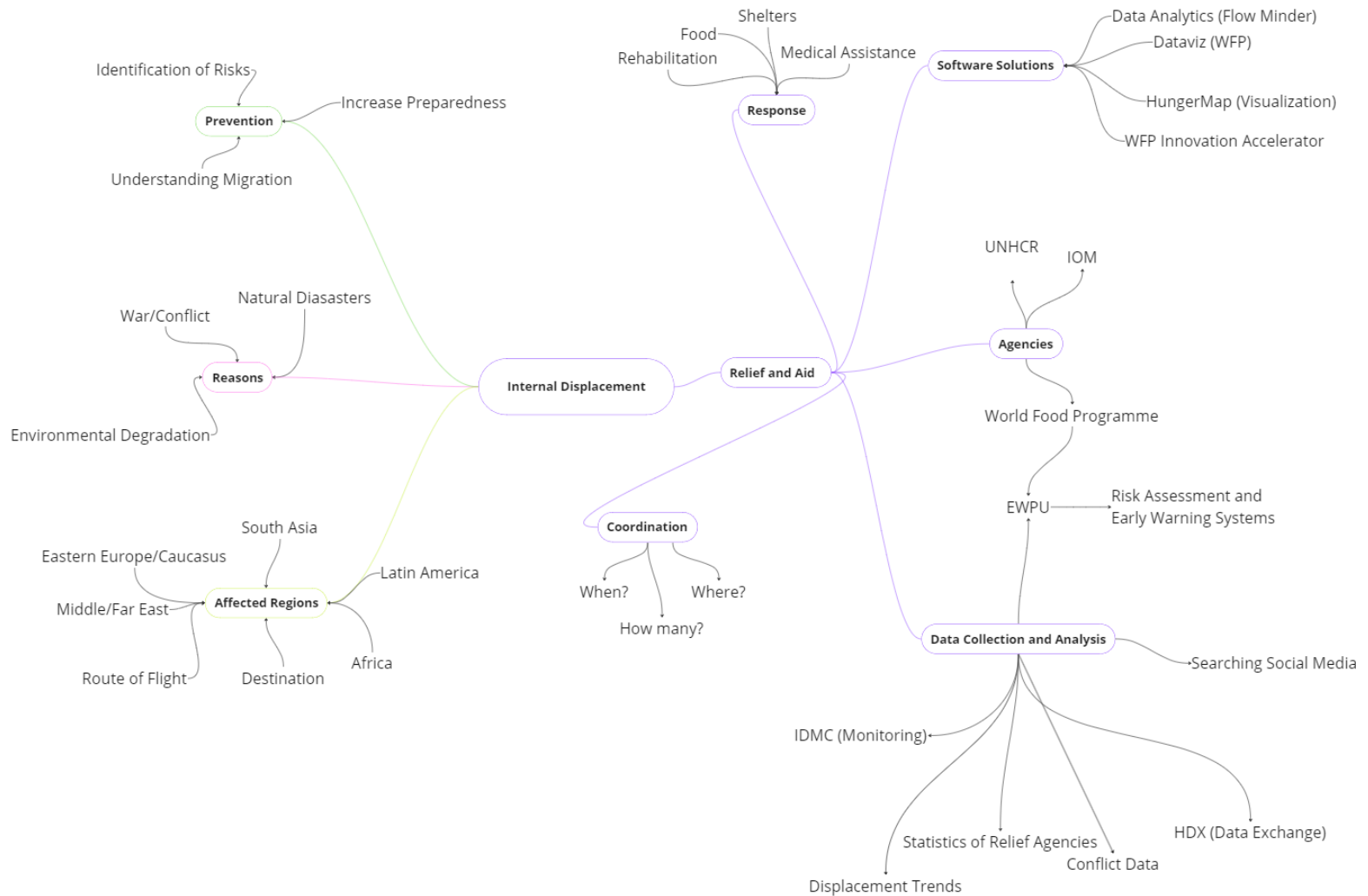**-Coordination:** Difficulties in coordinating the distribution of food to affected centers.
-Quantification: Challenges in accurately quantifying the needs of each center, compounded by the unpredictable nature of conflict zones.

Project Plan and Milestones

Mindmap

Glossary

WFP(World Food Programme): Non-profit organization with the primary objective to end world hunger. Responsible for receiving donations, procuring food and distributing food and finance resources to countries in need.

IDP(Internally Displaced Person): A person forced to leave their home and flee to another part of their country due to conflicts of various types or natural disasters.

HXL: (Human Exchange Language) Uniform standard to name columns of datasets

HDX: (Humanitarian Data Exchange) Major platform distributing human data of various relief organisations

IOM (International Organization for Migration): Established in 1951, IOM is the leading inter-governmental organization promoting humane and orderly migration for the benefit of all, with 173 member states and offices in over 100 countries.

UNHCR (United Nations High Commissioner for Refugees): Founded in 1950, shortly after World War II, UNHCR is a United Nations agency mandated to aid and protect refugees, forcibly displaced communities, and stateless people, and to assist in their voluntary repatriation, local integration, or resettlement to a third country.

Domain Model